ARTEMIS GOLD INC

Blackwater Mine

Air Quality and Fugitive Dust Management Annual Report 2023

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EXECUTIVE SUMMARY

The purpose of the 2023 Annual Monitoring Report for Air Quality and Fugitive Dust Management Plan (AQFDMP) is to provide a summary of environmental incidents and complaints, all monitoring under permits, an assessment of the data, and recommendations as appropriate. This report also conforms to the requirements outlined in Developing a Fugitive Dust Management Plan for Industrial Projects (BC EMLI & ENV, 2023) and EAO Condition 3 which require that adaptive management be used to evaluate the effectiveness and direct continual improvement of the AQFDMP.

On July 10th, 2023, Davidson Creek wildfire (File Number: G41493) grew to 4,879 hectares in size, burning approximately 60% of the mine site. BWG evacuated all employees on July 9th with a gradual return to site starting the week of July 24th. Construction activities fully recommenced on August 3rd. On July 13, 2023, BWG provided notifications to regulators, including ENV, and First Nations to highlight the potential for missed sampling events during this time. Due to the fire a radiello was unintentionally deployed for 45-days and weekly carbon monoxide (CO) monitoring did not occur.

As of December 31, 2023, the project had completed approximately 60% of construction activities. No point source discharges occurred, as infrastructure was still in development. The following activities were conducted at the mine site in 2023, that may have resulted in the emissions of fugitive dust:

- Land clearing and earthworks for the construction camp and plant site.
- Construction and use of unpaved access and mine roads.
- Material handling/re-handling at aggregate and topsoil stockpiles.
- Parking lot and road grading.
- Construction of water management structures (e.g., diversion channels)
- Aggregate extraction from borrow pits.
- Borrow and Aggregate Crushing and Screening; and
- Concrete Batch Plant operations.

Air quality samples were collected between May and December 2023 and analyzed for Particulate Matter $(PM)_{2.5}$, PM_{10}, Nitrogen Dioxide (NO_2) and Sulphur Dioxide (SO_2). Based on the sampling and analytical program:

- $PM_{2.5}$ exceeded the value of the BCAAQO 9 times between May and December 2023. A true $PM_{2.5}$ exceedance of the BCAAQO is based on the 98th percentile of 24-hour measurements. This metric cannot be calculated in 2023 as there was not a 75% data completeness for $PM_{2.5}$ in 2023.
- PM_{10} exceeded the BCAAQO 12 times between May and December 2023.
- The highest concentration of $PM_{2.5}$ (192 ug/m^3) and PM_{10} (278 ug/m^3) were both observed on August 28, 2023.
- In total 23 samples were collected in 2023, with the highest SO_2 (concentration of 0.23 ppb (June 18, 2023) and the highest NO_2 concentration of 4.9 ppb (Dec 19, 2023).
- Radiello samples are collected over a 7-day period, comparison to the CAAQS hourly NO_2 and SO_2 concentrations is not comparable. The annual average concentration of NO_2 and SO_2 were below the BACAAQO and CAAQS.
- Although not directly comparable to BCAAQO, no CO monitoring events exceeded the value of the 1-hour BCAAQO in 2023.
- The highest CO concentration of 9 ppm was observed on May 13, 2023, at the Maintenance Shop. The annual average of all CO monitoring events was 0.18 ppm.

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Acronyms and Abbreviations

Aboriginal Groups or Indigenous Nations	Aboriginal Groups include: Lhoosk'uz Dené Nation, Ulkatcho First Nation, Nadleh Whut'en First Nation, Stellat'en First Nation, Saik'uz First Nation, and Nazko First Nation (as defined in the Project's Environmental Assessment Certificate #M19-01)
AAQO	Ambient Air Quality Objective
ALS	ALS Environmental Laboratory
AQFDMP	Air Quality and Fugitive Dust Management Plan
AQO	Air Quality Objective
Artemis	Artemis Gold Inc.
Avison	Avison Management Services Ltd.
BC	British Columbia
Blackwater	Blackwater Gold Project
BWG	Blackwater Gold LTD.
CAAQs	Canadian Ambient Air Quality Standards
CALA	Canadian Association for Laboratory Accreditation
CCME	Canadian Council of Ministers of the Environment
CEA Agency	Canadian Environmental Assessment Agency
CO	Carbon monoxide
COA	Certificate of Analysis
COPC	Contaminant of Concern
CFMP	Country Foods Monitoring Plan
D1HM	Percentiles of daily 1-hour maximum
DL	Detection Limit
DS	Decision Statement
EAC or Certificate	Environmental Assessment Certificate
EAO	Environmental Assessment Office
EC	Environment Canada
ECCC	Environment and Climate Change Canada
EMLI	Ministry of Energy, Mines and Low Carbon Innovation
EMPR	Ministry of Energy, Mines and Petroleum Resources
ENV	Ministry of Environment and Climate Change Strategy
FSR	Forest Service Road

ha	Hectares
H2	Second Half of Calendar Year
Indigenous groups or Aboriginal Peoples	Lhoosk'uz Dené Nation, Ulkatcho First Nation, Nadleh Whut'en First Nation, Saik'uz First Nation, Stellat'en First Nation, Nazko First Nation, Skin Tyee Nation, Tŝilhqot'in Nation, Métis Nation British Columbia, and Nee-Tahi-Buhn Band (as defined in the Project's federal Decision Statement)
km	Kilometre
KP	Knight Piésold Ltd.
kV	Kilovolt
L	Litre
M^3	Cubic metre
MAP	Mean Annual Precipitation
MASL	Meters Above Sea Level
MAT	Mean Annual Temperature
MAR	Mine Access Road
MOE	Ministry of Environment
MP	Management plan
NAAQOS	National Ambient Air Quality Objectives
NA	Not applicable
NAPS	National Air Pollution Surveillance System
NC	Not calculable
NOx	Nitrogen oxides
NO_2	Nitrogen dioxide
PASS	Passive Air Sampling System
PE-110650	Air Permit 110650
ppb	Parts Per Billion
PM	Particulate matter
Project	Blackwater Gold Project
Q	Quarterly
QA/QC	Quality assurance /quality control
RPD	Relative Percentage Difference
SO2	Sulphur dioxide
SOP	Standard operating procedure

SWE	Snow Water Equivalent
t	Tonne
TARP	Trigger Air Response Plan
the Mine	Blackwater Gold Mine
TRP	Trigger Response Plan
TSF	Tailings Storage Facility
UCLM	Upper Confidence Limit of the Mean
µm	Microns
WMMP	Wildlife Management and Monitoring Plan
WMO	World Meteorological Organization

1 Introduction

1.1 Proponent Information

The Blackwater Gold Mine (the Mine) operated by Blackwater Gold Ltd. (BWG) is an open pit gold and silver mine. Construction of this facility initiated in October 2022 and is anticipated to take approximately 2 years, with first gold pour anticipated in H2 2024.

The Mine is located on the Nechako Plateau, a region of flat to gently rolling terrain on the northern slope of Mount Davidson. BWG is an open pit gold and silver mine located approximately 112 kilometres (km) southwest of Vanderhoof and 160 km southwest of Prince George, BC. The Project falls within NTS map sheet 93F/02, centred at 5893000 N and 375400 E (UTM Zone 10 NAD83). The mine site is centred at 53°11'22.872" N and 124°52'0.437" W. The Project is presently accessed via the Kluskus Forest Service Road (FSR), the Kluskus-Ootsa FSR and an exploration access road, which connects to the Kluskus-Ootsa FSR at km 148. A new, approximately 13.8 km road (Mine Access Road; MAR) will be built to replace the existing exploration access road, which will be decommissioned. The new planned access is at km 124.5.

Figure 1 identifies the Project location and the access route from Vanderhoof in relation to nearby communities.

The Mine is located within the traditional territories of Lhoosk'uz Dené Nation (LDN), Ulkatcho First Nation (UFN), Skin Tyee Nation and Tsilhqot'in Nation. The Kluskus and Kluskus-Ootsa FSRs and Project transmission line cross the traditional territories of Nadleh Whut'en First Nation (NWFN), Saik'uz First Nation (SFN), and Stellat'en First Nation (StFN; collectively, the Carrier Sekani First Nations) as well as the traditional territories of the Nazko First Nation (NFN), Nee Tahi Buhn Band, Cheslatta Carrier Nation and Yekooche First Nation (BC EAO 2019a, 2019b).

1.2 Facility and Process Description

Major mine components that started construction in 2023 were tailings storage facility (TSF), water management pond, central water transfer pond, ore processing facilities, soil stockpile, borrow areas, operations camp, and transmission line. The gold and silver will be recovered into a gold-silver doré product and shipped by air and/or transported by road. Electrical power will be supplied by a new approximately 135 km, 230 kilovolt (kV) overland transmission line that will connect to the BC Hydro grid at the Glenannan substation located near the Endako mine, 65 km west of Vanderhoof.

Fugitive dust is the primary source of air emissions and can be associated with the major mine components, section 4.0 identifies potential air emission sources.

For a more comprehensive review of the proposed mine site operation and infrastructure, refer to the Air Quality and Fugitive Dust Management Plan (AQFDMP) provided in Appendix A, Section 5.3.

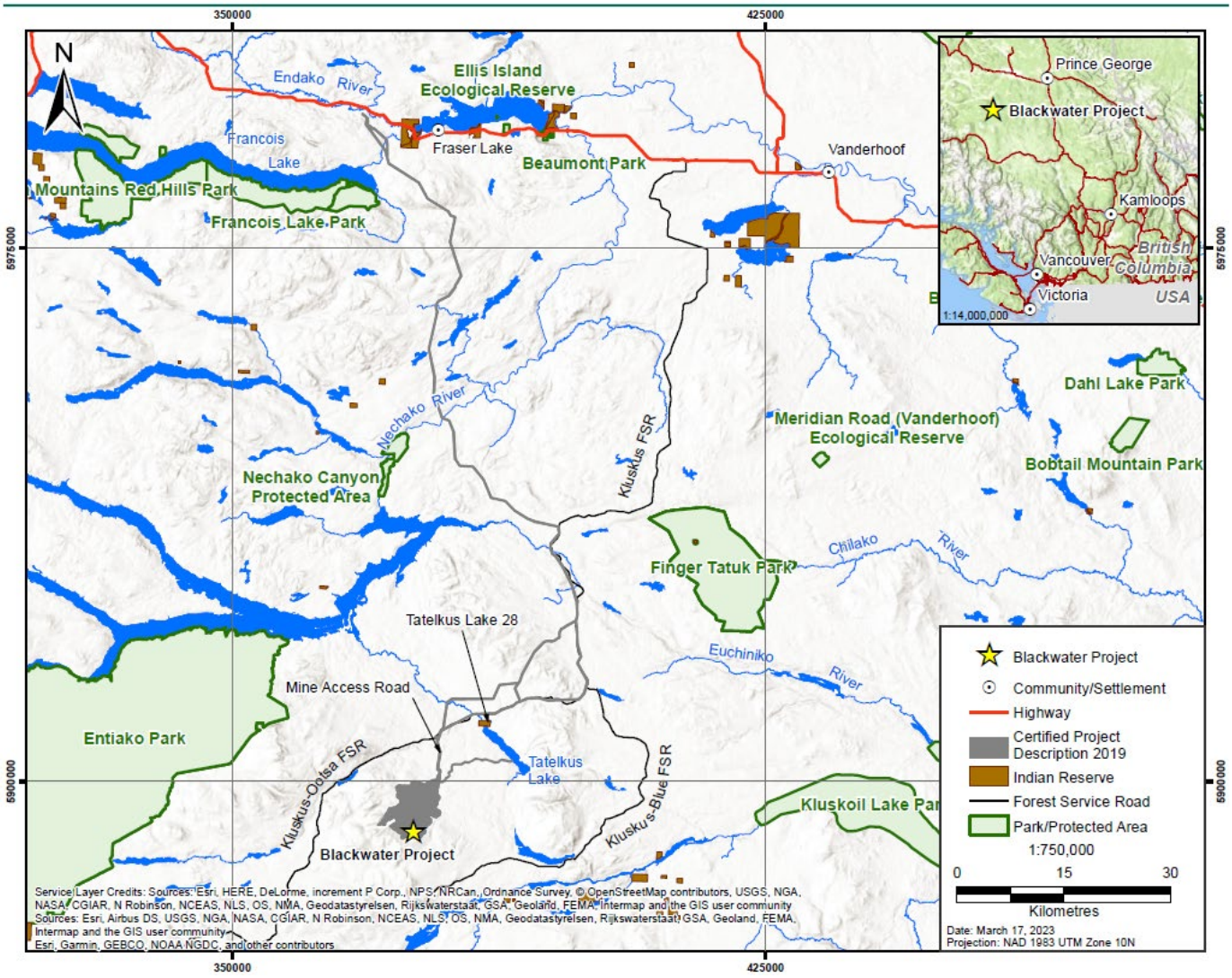

Figure 1 Blackwater Project Location

2 Purpose and Scope

The purpose of the 2023 Annual Monitoring Report for Air Quality and Fugitive Dust Management is to provide a summary of:

- Environmental incidents and complaints,
- All monitoring under permits,
- An assessment of the data; and,
- Recommendations as appropriate.

This report also conforms to the requirements outlined in Developing a Fugitive Dust Management Plan for Mines in BC (BC EMLI & ENV, 2023) and EAO Condition 3 which require that adaptive management be used to evaluate the effectiveness and direct continual improvement of the AQFDMP. The AQFDMP was developed for and submitted with BWG's Joint Application for Mines Act/ Environmental Management Act permits. It addresses the requirements of EAC #M19-01 Condition 20 and federal Decision Statement (DS) Conditions 6.1, 6.3, 6.12 and 6.15.

Additionally, this report identifies measures taken to minimize the effects of the Project's air emissions on human health and the natural environment. The scope of work conducted was in accordance with the

AQFDMP provided in Appendix A. The AQFDMP identifies the Project's fugitive dust-emitting sources and mitigation and contingency measures in the event that primary control measures are not effectively controlling dust emissions.

The intent of this report is to comply with the AQFDMP's annual reporting requirements.

2.1 Existing Permits

BWG has a permitted diesel-fired putrescible waste incinerator (Environmental Management Act Authorization #106530, the Authorization), which is located near the construction camp. The Authorization allows a maximum discharge rate of 110 m^3/minute and maximum waste feed of 1.1 tonnes/day. Authorized waste for incineration includes putrescible camp waste, paper, cardboard, and lumber scraps that cannot be recycled. Condition 2.1.3 of the Authorization requires that every effort be made to minimize incineration of plastics. BWG did not use the incinerator onsite in 2023 as waste was disposed of in an alternate manner (i.e., taken off-site for disposal). On December 8, 2023, a trial run was conducted to ensure that the incinerator was in good working condition. During the trial run, less than 20 kg of waste cardboard and wood were burned for less than an hour.

In May 2023 the Mine received Environmental Management Act Permit 110650 (PE-110650, dated May 2, 2023). This permit authorizes the discharge of air contaminants to the atmosphere from the mine, subject to a number of requirements. No operations occurred in 2023 as construction of the Mine progressed, a list of mine components in construction is provided in Section 1.2.

2.2 Exclusions

Consistent with the Guidance (BC EMLI & ENV, 2023), the AQFDMP does not address occupational health and safety requirements pertaining to workplace exposures to dust. Worker health and safety at mine sites is regulated by the Health, Safety and Reclamation Code for Mines in British Columbia (EMLI 2022). The Project's Occupational Health and Safety Program is discussed in Chapter 8 of the Application (BWG Project Joint Application for a Mines Act and Environmental Management Act Permits).

2.3 Related Documents

Environmental Assessment Certificate (EAC) Condition 20 requires the AQFDMP to indicate how the AQFDMP informs the Country Foods Monitoring Plan (CFMP, EAC Condition 41) and the Wildlife Mitigation and Monitoring Plan (WMMP, EAC Condition 23). Fugitive dust deposition monitoring is not recommended by the Ministry of Environment and Climate Change Strategy (ENV) for the purposes of wildlife and human health protection (ENV 2020) and is not included in the AQFDMP. However, as required by EAC Condition 41, analysis of dust for metal concentrations was monitored for the CFMP and data collected can be used to inform the WMMP.

Monitoring of trace element (metals) uptake in vegetation and soils is considered in the Reclamation and Closure Plan and the CFMP. Plant tissue can be affected by the deposition of dust (particulate matter) containing metals generated by Mine activities. Plants can also accumulate metals from the soil through uptake of metals through the root. Monitoring under the CFMP will determine whether concentrations of metals have changed in soil or in vegetation tissue because of the Mine. The results of trace metals monitoring and potential implications for wildlife based on results from monitoring under the CFMP will be addressed through WMMP reporting.

Results of the AQFDMP for monitoring of particulate matter (PM, Section 6.4), nitrogen dioxide (NO_2), and sulfur dioxide (SO_2; Section 6.5) will inform the CFMP. As such, results of the CFMP Dustfall

monitoring (Section 4.2, CFMP) will inform this AQFDMP report.

2.4 Davidson Creek Fire

An on-site wildfire started on July 10th, Davidson Creek (File Number: G41493[1]), and grew to 4,879 hectares in size, burning approximately 60% of the mine site. BWG evacuated all employees on July 9th with a gradual return to site starting the week of July 24th. Construction activities fully recommenced on August 3rd.

On July 13, 2023, BWG provided notifications to regulators, including ENV, and First Nations to highlight the potential for missed sampling events during this time. With regards to PE-110650, the sampling events missed due to this event was Carbon Monoxide (CO) Monitoring between July 9th and August 2nd, 2023, as well as a radiello sample was deployed on July 1st with the expectation it would be retrieved on July 10th. However, due to the evacuation of the mine the sample was not retrieved until August 15, 2023.

Additionally, following this event it was observed that the current Fugitive Dust Trigger Response Plan (TRP) does not support adequate delineation between fire impacts and mine impacts to PM. As a result, BWG reported several non-compliance to ENV and First Nations that were likely caused by smoke from those fires as opposed to activities on the mine site. As a learning from these events the AQDMP and TRP will be updated to reduce reporting during smoke events. This update will be made by a Qualified Professional.

As monitoring continues through future years, trends that may be associated with the 2023 Davidson Creek Wildfire will be noted.

3 Regulatory Objectives and Standards

The Canadian Environmental Protection Act, 1999 establishes National Ambient Air Quality Objectives (NAAQOs) and Canadian Ambient Air Quality Standards (CAAQS) to protect human health and the environment. BC has established Ambient Air Quality Objectives (AAQOs) pursuant to the Environmental Management Act. Federal and BC air quality objectives are provided in Table 3-1 and are non-legally binding limits. As even low levels of air pollution can affect some individuals, air quality objectives should not be viewed as levels that can be ‘polluted up to’, but levels to stay well below.

[1] BC Wildfire Service https://wildfiresituation.nrs.gov.bc.ca/list

Table 3-1 Canadian and BC Ambient Quality Objectives

Contaminants	Averaging Period	Objectives and Standards	
		BCAAQO [a]	**CAAQS** [b]
PM_{10}	24-Hour	50	-
$PM_{2.5}$	24-Hour	25 [c]	27 [d]
	Annual	8 [e]	8.8 [f]
CO	1-hour	14,300	-
	8-hour	5,500	-
NO_2	1-hour	188 [g]	113 [h]
	Annual	60 [i]	32[j]
SO_2	1-hour	-	183 [k]
	Annual	13 [l]	-

Notes:

µg/m³ = micrograms per cubic metre; PM_{10} = Particulate matter less than 10 µm (microns) in diameter; $PM_{2.5}$ = Particulate matter less than 2.5 µm (microns) in diameter; CO = carbon monoxide; NO_2 = nitrogen dioxide; SO_2 = sulphur dioxide

"-" signifies no air quality objective is available.

[a] BC Ambient Air Quality Objectives.

[b] Canadian Ambient Air Quality Standards.

[c] Achieved based on annual 98th percentile of daily average, over one year.

[d] Achieved based on 98th percentile of daily average, averaged over three consecutive years.

[e] Achievement based on annual average, over on year. There is a planning goal of 6 µg/m³.

[f] Achievement based on annual average, averaged over three consecutive years.

[g] Interim provincial AAQO, currently under review. Achievement based on annual 98th percentile of D1HM, over one- year.

[h] Achievement based on annual 98th percentile of D1HM, averaged over three consecutive years.

[i] Interim provincial AQO, currently under review.

[j] compliance based on a one-calendar-year average of all the 1-hour average concentrations.

[k] Achievement based on annual 99th percentile of D1HM, averaged over three consecutive years, effective January 1, 2020.

[l] Used to inform new air management decisions beginning January 2017 and all air management decisions beginning January 1, 2020.

4 Identification of Air Emission Sources

Fugitive dust is the primary source of air emissions. Potential dust sources include material handling/ re-handling, construction and use of unpaved roads, blasting, compaction, drilling, grading, material (including ore) loading and unloading, and ore processing. Erodible surface areas such as stockpiles and the TSF beach) are also sources of fugitive dust.

In 2023 the following activities were conducted at the mine site that may have resulted in the emissions of fugitive dust:

- Land clearing and earthworks for the construction camp and plant site.
- Construction and use of unpaved access and mine roads.
- Material handling/re-handling at aggregate and topsoil stockpiles.
- Parking lot and road grading.
- Construction of water management structures (e.g., diversion channels)
- Aggregate extraction from borrow pits.
- Borrow and Aggregate Crushing and Screening; and
- Concrete Batch Plant operations.

Table 4-1 provides further detail on dust emissions by Project component.

Table 4-1 Fugitive Dust Emission Sources by Project Component

Component	Potential Source	Dust-generating Material	Generating Conditions
Concrete Batch Plant	Material handling	Cement, aggregate	Any conditions
Aggregate screening areas	Material handling / rehandling, vehicle traffic	Aggregate	Windy, dry, hot days or extremely cold days
Borrow Areas	Material handling / rehandling, vehicle traffic	Overburden, waste rock and aggregate	Windy, dry, hot days or extremely cold days
Topsoil stockpiles	Wind erosion, material handling, vehicle traffic	Topsoil	Wind, dry, hot days, or extremely cold weather
Upper and Lower Waste stockpiles	Wind erosion, material handling, vehicle traffic	Overburden and waste rock	Windy, dry, hot days, or extremely cold weather
Service roads	Vehicles traffic, grading	Aggregate	Any conditions

Component	Potential Source	Dust-generating Material	Generating Conditions
Mine access road	Vehicle traffic, grading	Aggregate	Wind, dry, hot days, or extremely cold weather
TSF, mine site haul and service roads	Vehicle traffic, grading	Aggregate	Any conditions

Non-dust air emission sources include mine fleet exhaust (multiple), backup diesel generators (multiple), and the existing diesel-fired putrescible waste incinerator.

Once construction ends and the mine is operating, more activities will be present that could potentially result in fugitive dust. The AQFDMP further discusses the activities resulting in fugitive dust by Project Phase and Project Components (Section 6.0, Appendix A).

5 Fugitive Dust Management

Activities in 2023 that could have resulted in emissions of fugitive dust (non-point source emissions) included the following:

- Land clearing and earthworks for the construction camp and plant site;
- Construction and use of unpaved access and mine roads;
- Material handling/re-handling at aggregate and topsoil stockpiles;
- Parking lot and road grading;
- Construction of water management structures (e.g., diversion channels);
- Aggregate extraction from borrow pits;
- Borrow and aggregate crushing and screening; and
- Concrete Batch Plant.

5.1 Implementation

The following sections present the mitigation measures, training, and monitoring that was implemented in 2023 to manage fugitive dust and to help assess if mitigation measures are working.

5.1.1 Mitigation Measures

Site-specific mitigation measures, including best management practices, were applied to all active dust sources. Table 5-1 which is condensed to show only activities that occurred in 2023. For a full list of emission sources please refer to Section 8.2 of the AQFDMP (Appendix A).

Table 5-1 Air Quality Mitigation Measures, Best Management Practices, and Contingency

Emission Source	Best Management and Mitigation Measures
Concrete batch plant	• When unloading material, piles should form low piles (target height of approximately 10 m) that extend horizontally, where practical. • Employees involved in material handling or management will receive instruction by a qualified person on the importance of minimizing material drop height (from excavator to truck, conveyor to stockpile, etc.) to reduce fugitive dust, noise and vibration.
Aggregate crushing and screen areas	• Equip the crusher and/or screener circuits with onboard water dosing during times of the year above freezing temperatures or other dust suppression measures (e.g., reagents) systems. • Apply water when temperatures are above freezing and there are very dry conditions (less than 0.25 mm/day of precipitation in the previous week). • Stockpiles should form low piles (targe height of approximately 10 m) that extend horizontally as determined by the Construction Manager, where practical. • Use screener and crusher covers. • Check cover for tears, holes, and cracks on a monthly basis. Repair as soon as possible.
Borrow areas	• Apply water when temperatures are above freezing and there are very dry conditions (less than 0.25 mm/day or precipitation in the previous week). • Employees involved in material handling or management will receive instruction by a qualified person on the importance of minimizing material drop height (from excavator to truck conveyor to stockpile, etc.) to reduce fugitive dust, noise, vibration. • Develop new borrow areas only when and as required (to be determined by the Mine Manager). • Once suitable materials have been salvaged, place topsoil on disturbed areas and seed once they are sloped to final grade and at an appropriate time of year for seeding using a native seed mix to re-establish vegetative cover as soon as reasonably possible. • When unloading material, piles should form low piles (target height of approximately 10 m) that extend horizontally. • Minimize drop height from loaders and excavators (shovels) to the truck.
Topsoil Stockpiles	• When unloading material, the piles should form low piles that extend horizontally. • Seed stockpiles to reduce erosion and establishment of invasive species.
MAR	• Speed limits will be established based on road design class, with the maximum speed limit of 50 km/hr on all Project roads. • Reduce speed limits on Project-owned roads if weather conditions cause fugitive dust emissions and dust cannot be controlled by watering. • Speed limits are clearly marked through signage and enforced by site security through periodic checks using a radar speed gun. Personnel caught speeding will face disciplinary measures, and if violators are encountered, they will be provided with constructive instructions on the importance of adhering to speed limits to limit dust generation. • Manage dust emissions from roadways in accordance with the Fugitive Dust Management SOP. • Water roads in accordance with Section 5.1.1 (watering) of the Fugitive Dust Management Plan. • Apply dust suppressant reagents after spring melt (e.g., calcium chloride, magnesium chloride or other equivalent) as approved by the Mine Manager. • Grader maintenance with road crush as required. • Regular compaction. • Use coarse aggregate on roads with low silt content to reduce silt loading on roads.
TSF and mine haulage and service roads	• Speed limits will be established based on road design class, with the maximum speed limit of 50 km/hr on all Project roads. • Reduce speed limits on Project-owned roads if weather conditions cause fugitive dust emissions and dust cannot be controlled by watering. • Speed limits are clearly marked through signage and enforced by site security Personnel caught speeding may face disciplinary measures and if violators are encountered, they will be provided with constructive instruction on the importance of adhering to speed limits to limit dust generation. • Manage dust emissions from roadways in accordance with the Fugitive Dust Management Plan. • Visual inspections for dust emissions for roadways and active stockpiles – mine and infrastructure supervisors, or designate, as well as the mine dispatch office who have a number of real-time stationary but rotating cameras with multiple angles of the open pit and haul roads will monitor for visible emissions from the truck equipment, and active stockpiles on the site during moderate weather conditions. A hot, dry day is defined as a day with less than 0.25 mm of rainfall for the preceding 24 hours and a temperature greater than 20°C. • Utilize available fleet of water trucks, weather depending (non-freezing conditions) • Apply dust suppressant reagents after spring melt (e.g., calcium chloride, magnesium chloride or other equivalent) as approved by the Mine Manager. • Use coarse aggregate on roads with low silt content to reduce silt loading on roads. • Grader maintenance with road crush as required. • Regular compaction.
Vehicles	• Maintain equipment in good working condition according to manufacturer’s recommendations. • Restrict speeds and reducing idling. • Use Tier IV engines for mine fleet.

Water trucks were utilized on site to help supress fugitive dust emissions that may occur due to active trucks on the roadway and site construction. Water trucks were active between the months of May and October 2023, no calcium chloride was used at the Mine. Each water truck load holds approximately 20,000 L (20 m^3) of water. Table 5-2 below shows the number of water truck loads per month and estimated water used. Figure 2 below shows in red the route the water truck would take.

Table 5-2 Fugitive Dust Suppression

Truck No	**May**	**June**	**July**	**August**	**September**	**October**
	Number of Loads per Month					
982	8	151	39	139	129	55
988	45	97	55	126	84	5
991	0	8	20	110	56	0
Total Per Month	**53**	**256**	**114**	**375**	**269**	**60**
Estimated Volume of Water (m^3)	**1,060**	**5,120**	**2,280**	**7,500**	**5,380**	**1,200**

The Kode Borrow pit has installed spray bars to help with dust suppression. These spray bars are used as needed to suppress emissions of fugitive dust.

It's proposed that future plans for dust suppression at the TSF Esker incorporate the use of a dust suppression product similar to Envirobind, which is a biologically based modified asphalt emulsion that is specifically made for dust control.

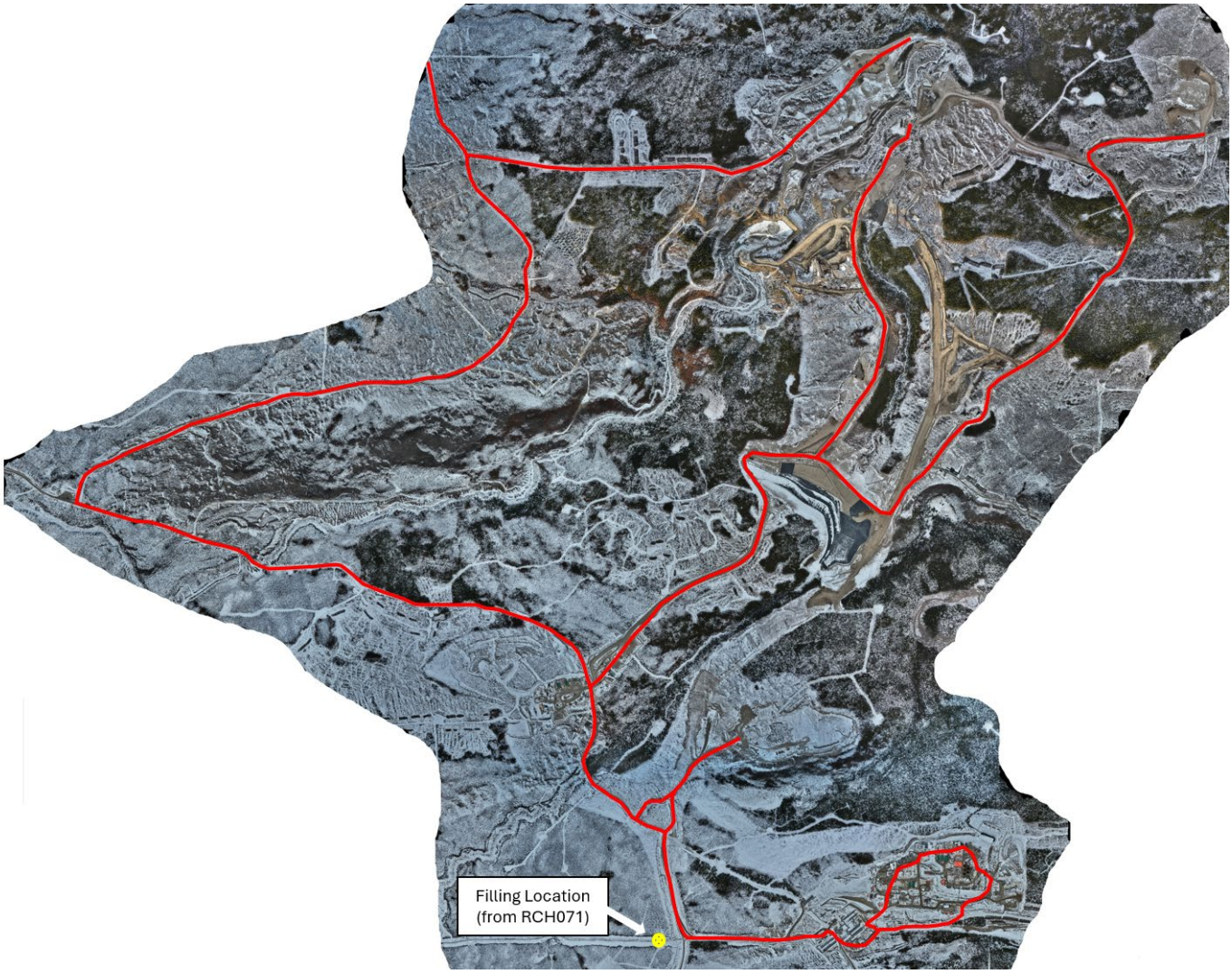

Figure 2 Water Truck Route

5.1.2 Training and Awareness

As part of the environmental on-boarding training session and Site Orientation, employees and contractors receiving training in fugitive dust management and air quality awareness upon arrive to site.

In August 2023, the Mine Environmental Department reviewed the *Fugitive Dust Management Plan Standard Operating Procedure* with the Earthworks Supervisors.

The purpose of training is to provide site personnel with a basic level of environmental awareness and an understanding of their obligations regarding compliance with regulatory requirements, commitments, and best practices. Targeted training related to dust management is provided to individuals and/or groups of workers assuming a specific authority or responsibility related to air quality.

BWG reviews and updates the training and awareness plan based on changes in training needs and regulatory requirements.

5.1.3 On-site Partisol Training

In November 2023 BWG Environment employees received a hands-on training provided by a qualified professional from CD Nova (Vancouver, BC), on the Thermo Scientific Partisol-FRM Model 2025i-D PM sampler (Partisol) and particulate matter sampling. The training covered:

- Reviewing Partisol machine parts, components, mechanisms, and functions.
- Reviewed owners manual and standard operating procedure.
- Disassembly of parts, cleaning process and reassembly.
- Reviewed standard maintenance and cleaning intervals.
- Calibration intervals and processes, including temperature, humidity, pressure, leak and flow testing.
- Installation of filter cassettes and magazines for regular sampling.
- Partisol Machine menu operation, procedures for setting sampling schedule.
- Reviewed Partisol Machine location and provided feedback for new location.

6 Monitoring

6.1 Point Source Discharge Monitoring

Point source discharge monitoring was not done in 2023, as the sources of discharge (e.g. crushers, furnaces, etc.) and the associated baghouse and dust suppression systems have not been constructed at the Mine.

6.2 Meteorological Stations

There are two existing, automated meteorological stations (Figure 3). Photos 6.2.1 and 6.2-2 of the Meteorological stations are provided below. Table 6-1 provides information on the locations, parameters measured, and the available period of data. Table 6-2 includes a list of the types of monitors at each station and sampling frequency.

The stations consist of a 10 m high tower with sensors, data logger and power supply. A Campbell Scientific CR1000 data logger is installed at each station and data are collected at hourly intervals for the following parameters:

- Average air temperature;
- Average humidity;
- Average wind speed and direction;
- Average snow depth;
- Total precipitation (solid and liquid);
- Average solar radiation;
- Average net radiation; and
- Average barometric pressure

Data, continuously collected by the units, is downloaded following procedures in the *Climate Station Operational and Quality Assurance Plan*. Data is reviewed according to guidance in *Water and Air Baseline Guidance Document for Mine Proponents and Operators* (BC MOE 2016c).

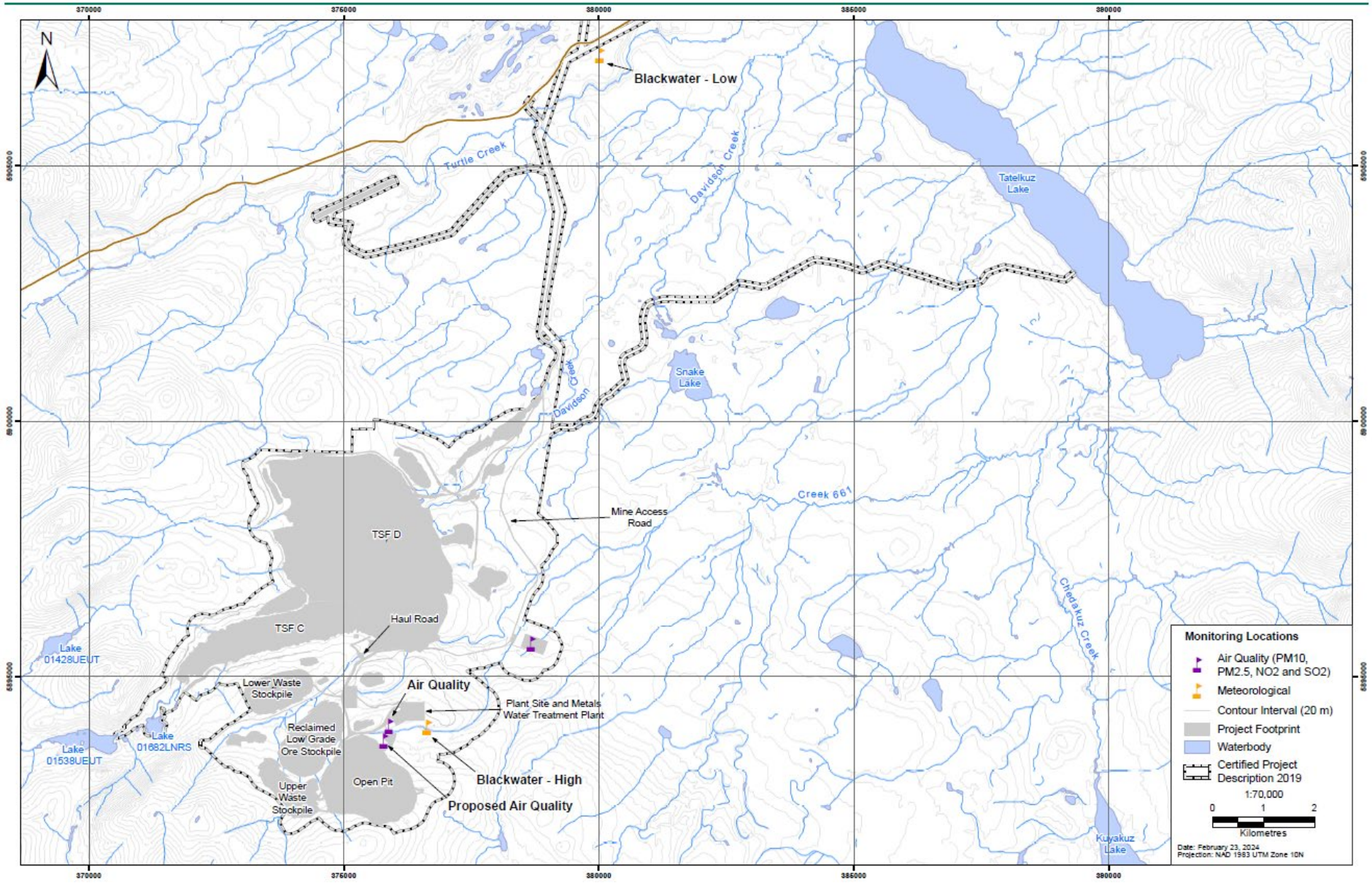

Figure 3 Air Quality Monitoring Locations

Photo 6.2-1 BWG High Station, Taken on December 21, 2023

Photo 6.2-2 BWG Low Station, Taken October 18, 2023

Table 6-1 BWG Project Meteorological Stations

Station Name	Station Height	Latitude (deg N)	Longitude (deg W)	Elevation (masl)	Meteorological Parameters Monitored	Data Period Available
Low	10 m	53.29979	124.80025	1,050	Air temperature, relative humidity, precipitation, wind speed and direction, barometric pressure, snow depth, net radiation, solar radiation	August 2011 - present
High	10 m	53.18113	124.84620	1,470	Air temperature, relative humidity, precipitation, wind speed and direction, barometric pressure, snow depth, net radiation, solar radiation	July 2012 - present

Table 6-2 Climate Station Monitored Parameters

Instrument	Type	Parameter Measured	Measurement Method	Data Calculation Method
Campbell Scientific SR50A 4941	Sonic Distance Sensor	Snow Depth	Look-down ultrasonic pulse sensor secured on a cross-arm measuring the distance to the surface of the snowpack	Hourly mean
R. M. Young 05103-10 122245	Wind Monitor	Wind (speed, direction, hourly standard deviation of direction)	Vane anemometer mounted 10 m above ground	Hourly mean for wind speed and direction
Vaisala CS106 H1950060	Barometer	Barometric Pressure	Silicon capacitive sensor housed inside the data logger enclosure	Hourly mean
Vaisala HMP 155 G3860033	Humidity and Temperature Probe	Air temperature and relative humidity	Temperature and humidity probe mounted 4 m above ground with a multi-plate passive solar radiation shield	Hourly mean
Ott Pluvio 302172	Precipitation Gauge	Precipitation	Weighing rain gauge outfitted with a single alter windshield	Hourly sum
Kipp & Zonen NR Lit 103766	Radiometer	Net radiation	Radiometer	Hourly mean
Kipp & Zonen SP Lite2 126157	Pyranometer	Solar radiation	Pyranometer	Hourly mean

6.2.1 Results

Knight Piesold Ltd. (KP) has provided technical support for the climate monitoring network for BWG since early 2011. An annual letter summarizing the continuous monitoring of meteorological parameters title *2023 Meteorological Monitoring Program Review* is included in Appendix B. The letter is intended to certify compliance with Section 5.2 and to satisfy the climatological portions of Section 6.1 h) and j) of this Air Discharge Permit.

A summary of the results presented in the Letter is provided below.

The Permit requires valid data for 90% of the hours in each calendar quarter, for continuously monitored parameters. This requirement was met for all parameters with an annual data availability of at least 99.8%. The table below breaks down the data availability per quarter Table 6-3.

Table 6-3 Annual and Quarterly Total Data Availability

Parameter	BWG High and Low Combined Daily Data Availability				
	Annual	Q1	Q2	Q3	Q4
Wind Speed	99.8%	99.7%	100%	100%	99.6%
Wind Direction	99.8%	99.7%	100%	100%	99.6%
Wind Direction Standard Deviation	99.8%	99.7%	100%	100%	99.6%
Air Temperature	99.9%	100%	100%	100%	99.6%
Precipitation	99.9%	100%	100%	100%	99.6%
Solar Radiation	99.9%	100%	100%	100%	99.6%
Rel. Humidity	99.9%	100%	100%	100%	99.6%

During 2023, the climate transitioned from La Niña to El Niño conditions, World Meteorological Organization (WMO) declared the onset of El Niño in early July, but the transition at site occurred a little earlier around spring 2023. Temperatures were mostly below the long-term average in the first quarter of the year, and then rising to stay above average for the remainder of the year.

The 2023 air temperature and precipitation were compared to the long-term temperature and precipitation series (41 years, 1980 – 2020) presented in Hydrometeorology Report (KP, 2021)[2]. The BWG High station mean annual temperature (MAT) of 3.3°C was 1.3°C warmer than the long-term MAT of 2.0°C. At the BWG Low station, the 2023 MAT was 5.0°C, 1.8°C warmer than the long-term MAT of 3.2°C. Table 6-4 provides the mine air temperature in 2023 with comparison to Long-term Estimates

[2] Knight Piesold Ltd. (KP), 2021. Blackwater Gold Project – 2020 Hydrometeorology Report. May 17. Vancouver, BC. Ref. No. VA101-457/33-, Rev1

Table 6-4 Mine Air Temperature in 2023 with Comparison to Long-term Estimates

Station / Parameter	Value	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Annual
BWG Low Air Temperature (°C)	Long-term Max	-2.7	-0.4	2.3	6.8	12.3	14.1	16.1	15.7	11.8	6.0	0.2	-2.0	4.8
	Long-term Min	-16.0	-14.9	-6.7	0.8	6.2	9.3	12.0	10.8	6.2	0.8	-13.5	-16.2	0.8
	Long-term Average	-7.7	-5.6	-1.1	3.7	8.6	11.6	13.7	13.3	9.1	3.6	-2.8	-7.5	3.2
	Year 2023	-3.3	-4.8	-3.7	2.5	12.5	13.8	14.4	15.1	10.2	4.4	-0.1	-1.9	5.0
	Year 2023 Deviation from LT-Average	+4.5	+0.8	-2.6	-1.2	+3.9	+2.2	+0.8	+1.8	+1.1	+0.7	+2.7	+5.6	+1.8
BWG High Air Temperature (°C)	Long-term Max	-1.3	-1.4	1.1	4.4	9.8	11.4	13.6	13.7	10.5	4.3	-0.2	-2.6	3.2
	Long-term Min	-14.7	-15.4	-7.6	-0.8	4.5	7.1	9.5	8.6	3.8	-0.3	-12.5	-14.9	-0.2
	Long-term Average	-7.3	-5.9	-2.1	2.1	6.5	9.1	11.0	10.7	7.0	2.3	-3.2	-7.3	2.0
	Year 2023	-3.4	-7.0	-5.7	-0.2	10.2	11.1	12.4	13.1	8.3	3.6	-1.0	-2.3	3.3
	Year 2023 Deviation from LT-Average	+3.8	-1.1	-3.6	-2.3	+3.8	+2.0	+1.4	+2.3	+1.2	+1.3	+2.2	+5.0	+1.3

Notes:

1. Grey shaded values indicate months with more than 5 missing observations that required infilling based on correlations with values from the other station.
2. The Mine's primary monitoring station is BW High, with BW Low serving as a redundancy station.
3. Underline 2023 values indicate a new maximum compared to the long-term record (1980-2020).

The annual precipitation at the BWG High station was 512 mm, 86% of the long-term mean annual precipitation (MAP) of 595 mm. At the BWG Low station, the 2023 annual precipitation of 361 mm was 73% of the long-term MAP of 495 mm. The relatively low precipitation at the BWG Low site may have been at least partially due to the estimation of missing data. On July 16, 2023, the most precipitation was seen at the BWG High station with 23.02 mm recorded in 24-hours. This value is raw data values before the application of an under-catch factor. The monthly and annual precipitation for 2023 and long-term estimates are shown in Table 6-5.

Table 6-5 Monthly and Annual Precipitation - 2023 and Long-term Estimates

Station / Parameter	Value	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Annual
BWG Low Total Precipitation (mm)	Long-term Max	128	98	62	70	86	155	156	134	9	146	122	79	657
	Long-term Min	11	5	1	4	7	15	11	2	7	6	12	7	345
	Long-term Average	41	28	24	28	38	59	56	46	44	54	42	37	495
	Year 2023	**34**	**34**	**24**	**28**	**14**	**27**	**72**	**39**	**13**	**20**	**24**	**32**	**361**
	Year 2023 as Percentage of LT-Average	83%	121%	100%	99%	36%	46%	129%	83%	30%	37%	58%	86%	73%
BWG High Total Precipitation (mm)	Long-term Max	164	106	65	79	100	177	178	153	103	175	120	101	779
	Long-term Min	14	6	2	4	8	17	12	9	10	18	15	10	408
	Long-term Average	51	35	30	33	44	68	64	52	51	65	56	47	595
	Year 2023	**46**	**73**	**29**	**33**	**19**	**45**	**91**	**32**	**23**	**31**	**51**	**38**	**512**
	Year 2023 as Percentage of LT-Average	90%	209%	97%	100%	44%	67%	143%	61%	46%	48%	91%	81%	86%

Notes:

1. Grey shaded values indicated months with more than 5 missing observations. These values were estimated by orographically adjusting the concurrent values from the BWG High station.
2. The Mine's primary monitoring station is BWG High, with the BWG Low station serving as a back-up station.

Manual snow surveys followed the sampling schedule of the regional snow survey conducted by the BC government. Regional snow survey and automatic snow pillow stations suggest that the snowpack conditions in 2023 at elevation 1,490 m (similar elevation to BWG High) was close to historical normal, with the peak Snow Water Equivalent (SWE) occurring in late April and snowpack disappearing by the end of May. Typically snow surveys at the mine were conducted monthly January to May; however, in early Q2 of 2023, the transition to the major mine permits and associated regulatory changes led to uncertainties in scope approval and temporary interruptions of site visits. Measurements were completed in January and February and May 2023 after the snow at the survey stations had melted. No survey data is available for April and May 2023.

Table 6-6 2023 Snow Course Survey Measurements

Snow Course	Date	Ave. Snow Depth (cm)	Ave. Snow Water Equivalent (cm)	Ave. Snow Density (%)
SS1	2023-01-04	59	11.6	20
	2023-02-23	97	20.0	21
SS2	2023-01-04	31	5.6	18
	2023-03-01	50	9.2	18
S3	2023-01-05	39	6.2	16
	2023-03-01	46	10.4	23

6.2.2 Quality Assurance and Quality Control

The meteorological stations follow the Station Operational and Quality Assurance Plan (KP, 2023) as required by PE-110650.

Instruments should be calibrated according to the manufacturer's recommended calibration schedule or if maintenance indicates the need to calibrate earlier. In general, the manufacturer's specifications for the operation and maintenance of monitoring instruments are followed.

No sensors required calibration in 2023, as they were all previously calibrated in summer 2022. Validation measurements are taken during field visits, to confirm the sensor is capturing accurate and precise data. The substantial difference between the temperature validation field measurements and the logger measurement at BWG Low is not believed to be indicated of a logger error, as BWG Low's air temperature and humidity time series did not indicate a systematic sensor error, and it is speculated that the noted difference is likely due to sun exposure to the handheld measurement device being exposed to sun while the station's sensor is housed inside a radiation shield.

Visual inspections were completed by Avison Management Services (Avison) at the BWG Low station on February 23, June 8, July 4, August 1, September 8, and October 18, 2023, and at the BWG High Station on January 5, 18 and 23, February 17, May 8, July 4, August 1, October 26, and December 21, 2023. Avison inspects the instruments, probes and cables for any damage or corrosion, as well as removes any shrubs or tress starting to grow in the area to keep the areas clear for quality data collection. Avison documents site visits using KP's online database. That database tracks equipment changes, maintenance, and basic site visits.

Cable damage occurred at BWG Low station resulting in missing air temperature, radiation, and relative humidity, between May – June 2, 2023. A sensor malfunction resulted in no precipitation monitoring between May 2 and 11, 2023.

In August 2023, the two climate stations were each upgraded with telemetry modem, which added real-time weather monitoring capability to the Mine. This upgrade significantly improved response times to sensor malfunction and repair. Additionally, accessing real-time weather data via an interactive dashboard improves the Mine's site operation and management planning.

6.3 Dustfall Monitoring

Although dustfall monitoring and the dustfall Pollution Control Objectives have outdated methodology and are no longer recommended by BC ENV (2020), dustfall samples were collected from eight locations in September of 2023 and are presented in ERM (2024) *"CFMP Annual Report 2023"* provided in Appendix C.

For full discussion and comparison of dustfall and particulate matter refer to CFMP (ERM 2024), the following summarizes information taken from the CFMP (ERM 2024)

Dustfall collectors were deployed from September 3 to 8, 2023. ERM's sampling crew deployed five out of eight dustfall containers, while the remaining three dustfall containers were set up by the BWG environmental team. Four dustfall stations were located in the near-field area at sites CFMP-SV-004, -006, -014, and -019; and four sites were located in the control area at sites CFMP-SV-024, -027, -032, and -040. Site 004 had been affected by the July 2023 wildfire, but dust collectors were set up after fire activity had ceased and it was safe for crews to enter the area. Table 6-7 lists the location and site classification.

Table 6-7 2023 Dustfall Sampling Sites

Site ID	UTM Coordinates		Site Classification	
	Easting	Northing	Near-Field (Impact)	Control
CFMP-SV-004	371485	5896139	X	
CFMP-SV-006	374417	5891796	X	
CFMP-SV-014	379289	5898605	X	
CFMP-SV-019	377967	5900722	X	
CFMP-SV-024	375822	5907513		X
CFMP-SV-027	386022	5902891		X
CFMP-SV-032	368437	5880920		X
CFMP-SV-040	388451	5905960		X

Impact sites (CFMP-004, -006, -014, and 019) were sampled for dustfall for 23 to 24 days, and control sites (CFMP-024, -027, -032, and -040) were sampled for 12 to 21 days. The deviation to sampling is discussed in the CFMP Annual Report (ERM 2024).

6.3.1 Results

Summary statistics for total dustfall and dustfall metal amounts for contaminant of potential concern (COPCs) at impact and control sites and in the CFMP study area overall are shown in Table 6-8 and Table 6-9 provides the site-wide results.

Mean total dustfall amount at impact sites was 4.34 mg, whereas total dustfall was not detectable at any of the control sites. Only aluminum, iron, lead, and manganese were sufficiently (>30% of samples) detectable in dustfall to calculate summary statistics. Three out of four impact sites had detectable levels of iron and lead, whereas lead was not detectable at control sites and iron was only detectable in one of the four control sites. Zinc was detectable at one impact site. Concentrations of COPCs overall were low.

Table 6-8 Summary Statistics for Total Dustfall and Dustfall Metals COPCS, 2023

Parameter or COPC	Total Dustfall and Dustfall Metal Amounts, Near-field Sites (n = 4)				Total Dustfall and Dustfall Metal Amounts, Control Sites (n = 4)			
	n > DL	Minimum (mg)	Mean (mg)	Maximum (mg)	n > DL	Minimum (mg)	Mean (mg)	Maximum (mg)
Field sampling time (days)	4	23	24	24	4	12	19	21
Particulates								
Total dustfall	4	1.92	4.34	9.02	0	0.95	0.95	0.95
Total Metals								
Aluminium	4	0.0171	0.0370	0.0517	4	0.0076	0.0129	0.0185
Antimony	0	<0.000050	-	<0.000050	0	<0.000050	-	<0.000050
Arsenic	1	<0.000050	-	0.0000920	0	<0.000050	-	<0.000050
Beryllium	0	<0.00025	-	<0.00025	0	<0.00025	-	<0.00025
Cadmium	0	<0.000020	-	<0.000020	0	<0.000020	-	<0.000020
Chromium	0	<0.00025	-	<0.00025	0	<0.00025	-	<0.00025
Cobalt	0	<0.000050	-	<0.000050	0	<0.000050	-	<0.000050
Copper	0	<0.00050	-	<0.00050	0	<0.00050	-	<0.00050
Iron	3	<0.015	0.0304	0.0470	1	<0.015	-	0.0170
Lead	3	<0.000025	0.0000554	0.000154	0	<0.000025	-	<0.000025
Lithium	0	<0.0025	-	<0.0025	0	<0.0025	-	<0.0025
Manganese	4	0.00925	0.0182	0.0398	4	0.00641	0.00799	0.0105
Mercury	0	<0.000025	-	<0.000025	0	<0.000025	-	<0.000025
Molybdenum	0	<0.000025	-	<0.000025	0	<0.000025	-	<0.000025
Nickel	0	<0.00025	-	<0.00025	0	<0.00025	-	<0.00025
Selenium	0	<0.00050	-	<0.00050	0	<0.00050	-	<0.00050
Thallium	0	<0.000050	-	<0.000050	0	<0.000050	-	<0.000050
Zinc	1	<0.0015	-	0.00400	0	<0.0015	-	<0.0015

Table 6-9 Summary Statistics for Site-Wide Total Dustfall and Dustfall Metals COPCS, 2023

Parameter or COPC	Total Dustfall and Dustfall Metal Amounts, Site-wide (n = 8; mg)								
	n > DL	Minimum	Mean	Standard Deviation	Standard Error	95%UCLM	Median	95th Percentile	Maximum
Dustfall, total	4	<1.90	2.65	2.83	1.00	4.61	1.44	7.40	9.02
Total Metals									
Aluminium	8	0.0076	0.0249	0.0168	0.00595	0.0366	0.0178	0.0504	0.0517
Antimony	0	<0.000050	-	-	-	-	-	-	<0.000050
Arsenic	1	<0.000050	-	-	-	-	-	-	0.0000920
Beryllium	0	<0.00025	-	-	-	-	-	-	<0.00025
Cadmium	0	<0.000020	-	-	-	-	-	-	<0.000020
Chromium	0	<0.00025	-	-	-	-	-	-	<0.00025
Cobalt	0	<0.000050	-	-	-	-	-	-	<0.000050
Copper	0	<0.00050	-	-	-	-	-	-	<0.00050
Iron	4	<0.015	0.0201	0.0167	0.00590	0.0317	0.0123	0.0460	0.0470
Lead	3	<0.000025	0.0000339	0.0000490	0.0000173	0.0000679	0.0000125	0.000110	0.000154
Lithium	0	<0.0025	-	-	-	-	-	-	<0.0025
Manganese	8	0.00641	0.0131	0.0110	0.00390	0.02072	0.00968	0.03060	0.0398
Mercury	0	<0.000025	-	-	-	-	-	-	<0.000025
Molybdenum	0	<0.000025	-	-	-	-	-	-	<0.000025
Nickel	0	<0.00025	-	-	-	-	-	-	<0.00025
Selenium	0	<0.00050	-	-	-	-	-	-	<0.00050
Thallium	0	<0.000050	-	-	-	-	-	-	<0.000050
Zinc	1	<0.0015	-	-	-	-	-	-	0.00400

Notes:
COPC = contaminant of potential concern; n = number of samples; DL = detection limit; UCLM = upper confidence limit of the mean
"<" = concentration is less than the detection limit.
"-" means that summary statistics, other than minimum and maximum, have not been calculated as more than 70% of samples were below DL.
For the purpose of calculating summary statistics, non-detectable concentrations were assumed to be 0.5 x DL.
Impact (near-field) sites are CFMP-SV-004, -006, -014, and -019, and control sites are CFMP-SV-024, -027, -032, and -040,

6.4 Particulate Matter Monitoring

A Thermo Scientific Partisol FRM Model 2025i D PM sampler (Partisol) was installed in October 2022. Monitoring of PM by the Partisol began on May 9, 2023. The location of the Partisol was recommended by an Air Quality QP and is centred at 5894019 N and 375894 E (UTM Zone 10 NAD83). The Partisol was installed near the existing exploration camp, between Dorm block A and the maintenance shop (see Figure 3 Air Quality Monitoring Locations).

However, following a review of those results presented below it was noted that the presence of a wood burning furnace (used periodically until the end of May 2023), and the increase in infrastructure was impacting the monitoring results. Based on this a QP has recommended that the Partisol be moved to a new location. To support this recommendation BWG is pursuing an amendment to PE-110650 to relocate the unit. The revised location is still situated near the Construction Camp at 5893835N and 375871 E, however it is further away from busy unpaved roads and building structures.

The Partisol will stay at this new location until the Operations camp is complete.

6.4.1 Sampling Methodology

BWG personnel collected particulate matter samples in general accordance with ENV's *British Columbia Field Sampling Manual* (2013).

PM samples were collected directly from laboratory supplied filtered cassettes. The Partisol measures PM < 10 microns (PM_{10}) and PM < 2.5 microns ($PM_{2.5}$) mass concentrations on a 47 mm filter contained in a single-action filter change mechanism. Samples were collected over a 24-hour period at a target flow rate of 1m^3/hr.

The following procedure were completed for cassette deployment and retrieval.

- The PM cassette filters are prepped by ALS Environmental Laboratory (ALS) accredited by Canadian Association for Laboratory Accreditation (CALA) and returned to BWG for deployment.
- BWG loads received cassette filters into the Partisol, inputting individual filter numbers to associate filters with sampling information.
- Sample schedules are set following National Air Pollution Surveillance (NAPS) sampling schedule. During the months of May to October, fine particulate sampling occurs every third day, simultaneously for $PM_{2.5}$ and PM_{10}. During November to April, sampling occurs on a weekly basis simultaneously for $PM_{2.5}$ and $PM_{10.}$
- Cassettes were retrieved on a weekly basis, recording field notes (date, weather, time) as well as sample information such as Volume (m^3) and total sample run time (HH:mm).
- All samples were stored in coolers and transported under chain of custody protocol to ALS for analysis.

6.4.2 Results

The 2023 particulate matter monitoring results are summarized in Table 6-10 Summary of 2023 May to December Partisol Results, and laboratory certificates of analysis are attached in Appendix D. Monitoring results are compared to TRP and applicable standard and objectives.

$PM_{2.5}$ exceeded the value of the BCAAQO 9 times between May and December 2023. A true $PM_{2.5}$ exceedance of the BCAAQO is based on the 98th percentile of 24-hour measurements. This metric cannot

be calculated in 2023 as there was not a 75% data completeness for $PM_{2.5}$ in 2023. PM_{10} exceeded the BCAAQO 12 times between May and December 2023. The highest concentration of $PM_{2.5}$ (192 ug/m^3) and PM_{10} (278 ug/m^3) were both observed on August 28, 2023. Table 6-11 Particulate Matter Exceedances outlines the date of exceedances, parameter which exceeded, and a rationale. Table 6-10 Summary of 2023 May to December Partisol Results also shows the May to December average 24-hour concentration for PM_{10} (37.0 ug/m^3) and $PM_{2.5}$ (15.4 ug/m^3) and data completeness based on the total number of possible samples that were planned on being taken between May and December.

Table 6-10 Summary of 2023 May to December Partisol Results

Sample ID	Date Sampled	Particulate, PM_{10}	Particulate, $PM_{2.5}$
BCAAQO		**50**	**25[a]**
CAAQS		50	27[b]
TRP, Level 1 Low Trigger		>34 and ≤ 40	>12.5 and ≤ 20
TRP, Level 2 Medium Trigger		>40 and ≤50	>20 and ≤25
TRP, Level 3 High Trigger		>50	>25
	Units	**µg/m³**	**µg/m³**
78149 / 77705	May 9, 2023	<3.3	<2.6
77710 / 78107	May 12, 2023	42.6	11.6
77715 / 78106	May 15, 2023	33.7	4.9
77716 / 78147	May 18, 2023	**69.2**	15.9
78102 / 77729	May 21, 2023	**171**	**82.2**
77707 / 78101	May 24, 2023	**53.1**	5.9
78099 / 78151	May 27, 2023	9.7	4.1
77706 / 77730	May 30, 2023	34.2	4.7
78104 / 77714	Jun 2, 2023	**68.8**	4.4
78152 / 77718	Jun 5, 2023	**51.0**	4.6
77700 / 77711	Jun 8, 2023	16.5	<2.7
78153 / 77713	Jun 11, 2023	**62.7**	12.0
77701 / 78103	Jun 14, 2023	15.7	3.0
77699 / 77725*	Jun 14, 2023	9.2	2.8
N/A	Jun 17, 2023	M	M
N/A	Jun 23, 2023	M	M
N/A	Jun 26, 2023	M	M
N/A	Jun 29, 2023	M	M
77696 / 77723	July 2, 2023	19.2	4.3
77695 / RP76461	July 5, 2023	<3.0	<2.3
77694 / RP68929	July 8, 2023	**152**	**28.4**
77693 / 77728	July 11, 2023	14.2	8.0
77692 / 77724	July 14, 2023	48.6	**33.5**
N/A	July 17, 2023	M	M
77690 / 77704	July 20, 2023	7.7	7.7
77689 / 77726	July 23, 2023	47.2	**40.6**
77688 / 77720	July 26, 2023	12.8	10.5
77687 / 21530	July 29, 2023	9.4	5.0

Sample ID	Date Sampled	Particulate, PM_{10}	Particulate, $PM_{2.5}$
BCAAQO		**50**	**25[a]**
CAAQS		50	27[b]
TRP, Level 1 Low Trigger		>34 and ≤ 40	>12.5 and ≤ 20
TRP, Level 2 Medium Trigger		>40 and ≤50	>20 and ≤25
TRP, Level 3 High Trigger		>50	>25
	Units	**µg/m³**	**µg/m³**
77686 / 77703	Aug 1, 2023	7.5	5.4
77685 / 77717	Aug 4, 2023	22.2	5.4
77684 / 77718	Aug 7, 2023	32.8	7.5
77683 / 78155	Aug 10, 2023	24.1	7.3
N/A	Aug 13, 2023	M	M
N/A	Aug 16, 2023	M	M
0-78099 / 0-77730	Aug 19, 2023	42.5	16.3
0-77700 / 0-78151	Aug 22, 2023	**95.3**	**48.1**
0-77706 / 0-78101	Aug 25, 2023	43.0	**30.2**
0-78152 / 0-77708	Aug 28, 2023	**278**	**192**
0-77701 / 0-77719	Aug 31, 2023	28.1	17.7
0-78102 / 25080	Sept 3, 2023	**143**	**126**
077716 / 057295	Sept 6, 2023	7.4	7.4
078147 / 078147	Sept 9, 2023	16.4	5.7
78106 / 77727	Sept 12, 2023	11.1	6.5
78107 / 77722	Sept 15, 2023	**97.9**	**25.9**
78103 / 80874	Sept 18, 2023	33.4	5.2
77713 / 21529	Sept 21, 2023	48.4	5.6
78154 / 77711	Sept 24, 2023	12.3	3.2
077718 / 078156	Sept 27, 2023	11.6	2.4
077714 / 077709	Sept 30, 2023	16.7	5.6
Partisol 1	Oct 3, 2023	8.2	3.6
N/A	Oct 6, 2023	M	M
N/A	Oct 9, 2023	M	M
N/A	Oct 12, 2023	M	M
N/A	Oct 15, 2023	M	M
Partisol 1	Oct 17, 2023	<3.0	2.6
Partisol 1	Oct 20, 2023	<3.0	<2.3
Partisol 1	Oct 23, 2023	21.4	4.5
N/A	Oct 26, 2023	M	M
N/A	Oct 29, 2023	M	M
N/A	Nov 1, 2023	M	M
Partisol 1	Nov 8, 2023	<3.0	<2.3
Partisol 1	Nov 14, 2023	7.0	<2.3
Partisol 1	Nov 20, 2023	**54.1**	<2.3

Sample ID	Date Sampled	Particulate, PM_{10}	Particulate, $PM_{2.5}$
BCAAQO		**50**	**25[a]**
CAAQS		50	27[b]
TRP, Level 1 Low Trigger		>34 and ≤ 40	>12.5 and ≤ 20
TRP, Level 2 Medium Trigger		>40 and ≤50	>20 and ≤25
TRP, Level 3 High Trigger		>50	>25
	Units	**µg/m³**	**µg/m³**
Partisol 1	Nov 26, 2023	3.4	3.4
Partisol 1	Dec 3, 2023	<3.0	<2.0
Partisol 1	Dec 8, 2023	5.5	2.4
Partisol 1	Dec 14, 2023	<3.0	<2.3
Partisol 1	Dec 20, 2023	<3.0	<2.3
Partisol 1	Dec 26, 2023	<3.0	<2.3
Annual Average Concentration (µg/m³)		**37.0**	**15.4**
Annual BCAAQO (µg/m³)		**-**	**8**
Maximum Concentration (µg/m³)		**278.0**	**192.0**
Number of Days of Exceedance above the 24-hour BCAAQO		**12**	**9**
Data Completeness (May – Dec)		**80%**	**80%**

All units are in µg/m³ unless otherwise specified.
sources: British Columbia Ministry of Environment and Climate Change Strategy (BCAAQO, 2023) and Canadian Ambient Air Quality Standards (CAAQS, 2013)
M-missing data, N/A-not applicable
a- achieved based on annual 98th percentile value.
b- achieved based on 98th percentile of daily average, averaged over three consecutive years.
Where concentrations were below the detection limit, half the detection limit was used for the calculation.
* - Two June 14, 2023, samples were recorded; however, impossible. The second June 14,2023 was sampled between June 14 and July 2, but the date is unknown.

6.4.3 Non-Compliance Results

Between May and December 2023, PM monitoring experienced 16 $PM_{2.5}$ and 16 PM_{10} exceedances when compared to PE-110650 and TRP trigger levels. The predicted root causes for the exceedances were construction activities, maintenance shop's wood burning furnace[3], and wildfire smoke from regional and onsite fires. A list of the exceedances is presented below. The dates of the Non-compliance submissions to the director were: August 14, September 13, October 5, October 18, December 5, 2023.

[3] The wood burning furnace was used to burn untreated wood for warmth in the Maintenance shop. The furnace was decommissioned in May 2023.

Table 6-11 Particulate Matter Exceedances

Date	Trigger / Exceedance	Root Cause of Non-Compliance	Remedial Action
May 18, 2023	PM_{10}, High Level Permit Exceedance	Nearby Construction and Maintenance Shop Wood Burning Furnace	Construction was completed and Maintenance shop wood burning furnace was locked out.
May 21, 2023	$PM_{2.5}$ and PM_{10}, High Level Permit Exceedance	Nearby Construction and Maintenance Shop Wood Burning Furnace	Construction was completed and Maintenance shop wood burning furnace was locked out.
May 24, 2023	PM_{10}, High Level Permit Exceedance	Nearby Construction and Maintenance Shop Wood Burning Furnace	Construction was completed and Maintenance shop wood burning furnace was locked out.
June 2, 2023	PM_{10}, High Level Permit Exceedance	Nearby Construction and Maintenance Shop Wood Burning Furnace	Construction was completed and Maintenance shop wood burning furnace was locked out.
June 5, 2023	PM_{10}, High Level Permit Exceedance	Nearby Construction and Maintenance Shop Wood Burning Furnace	Construction was completed and Maintenance shop wood burning furnace was locked out.
June 11, 2023	PM_{10}, High Level Permit Exceedance	Nearby Construction and Maintenance Shop Wood Burning Furnace	Construction was completed and Maintenance shop wood burning furnace was locked out.
July 8, 2023	$PM_{2.5}$ and PM_{10}, High Level Permit Exceedance	Nearby and local wildfires	BWG Industrial Hygienist commenced daily particulate monitoring using a handheld Particulate Plus, Model #7301.
July 14, 2023	$PM_{2.5}$ High Level Permit Exceedance and PM_{10} Medium Level	Nearby and local wildfires	BWG Industrial Hygienist commenced daily particulate monitoring using a handheld Particulate Plus, Model #7301.
July 23, 2023	$PM_{2.5}$ High Level Permit Exceedance and PM_{10} Medium Level	Nearby and local wildfires	BWG Industrial Hygienist commenced daily particulate monitoring using a handheld Particulate Plus, Model #7301.
Aug 19, 2023	$PM_{2.5}$ Low Level and PM_{10} Medium Level Exceedance	Nearby and local wildfires	BWG Industrial Hygienist commenced daily particulate monitoring using a handheld Particulate Plus, Model #7301.
Aug 22, 2023	$PM_{2.5}$ and PM_{10}, High Level Permit Exceedance	Nearby and local wildfires	BWG Industrial Hygienist commenced daily particulate monitoring using a handheld Particulate Plus, Model #7301.
Aug 25, 2023	$PM_{2.5}$ High Level Permit Exceedance and PM_{10} Medium Level	Nearby and local wildfires	BWG Industrial Hygienist commenced daily particulate monitoring using a handheld Particulate Plus, Model #7301.
August 28, 2023	$PM_{2.5}$ and PM_{10}, High Level Permit Exceedance	Nearby and local wildfires	BWG Industrial Hygienist commenced daily particulate monitoring using a handheld Particulate Plus, Model #7301.
Aug 31, 2023	$PM_{2.5}$ Low Level	Nearby and local wildfires	BWG Industrial Hygienist commenced daily particulate monitoring using a handheld Particulate Plus, Model #7301.
Sept 3, 2023	$PM_{2.5}$ and PM_{10}, High Level Permit Exceedance	Nearby and local wildfires	BWG Industrial Hygienist commenced daily particulate monitoring using a handheld Particulate Plus, Model #7301.
Sept 15, 2023	$PM_{2.5}$ and PM_{10}, High Level Permit Exceedance	Nearby and local wildfires, as well as gusty wind conditions	BWG Industrial Hygienist commenced daily particulate monitoring using a handheld Particulate Plus, Model #7301. As well water trucks are deployed on dry and dusty days.
Sept 21, 2023	PM_{10} Medium Level	Fugitive dust possibly from site activities and nearby vehicle movement on unpaved ground as well as contribution from wildfire smoke.	Water trucks run daily to prevent fugitive dust that may occur on roadways or due to construction activities.
November 20, 2023	PM_{10}, High Level Permit Exceedance	Entrained dust due to gusty wind conditions	Freezing temperatures at site and snow cover

6.4.4 Quality Assurance and Quality Control

The quality assurance and quality control (QA/QC) program implemented during this monitoring period was to confirm that representative samples were collected, and representative laboratory results were reported. BWG followed the listed procedure for the QA/QC program:

- Recorded field notes during each deployment and retrieval of the Partisol magazines.
- Samples submitted to ALS using an accurately filled out Chain of Custody.
- Employees received hands on training provided by CD Nova.
- Samples submitted to ALS are subjected to laboratory QA/QC procedures (i.e., method blanks, laboratory control samples, lab duplicates, etc.), which are documented in the laboratory Certificate of Analysis (COA) provided in Appendix D. No laboratory outliers for method blanks, duplicates, test sample surrogate recovery, reference material sample, quality control sample frequency, or holding time were identified during 2023.

6.5 Nitrogen Dioxide and Sulfur Dioxide Monitoring

BWG personnel collected passive air sample system (PASS) in general accordance with ENV's *British Columbia Field Sampling Manual* (2023).

The radiello apparatus was installed by BWG staff in 2023 at the same location as the Partisol. The deployment duration of the Radiello was in general accordance with BC ENV Standard Operating Procedure 7 Passive Sampling (2018) between 24-hours and 30 days. It is recommended in the User Manual 2019 Radiello[4] provided by ALS that 15-days or less was most ideal, as long as relative humidity was less than 70% for the entire sampling duration or advisable to sample up to 7-days if humidity is over 70%. It was decided that radiello would be deployed for roughly 7-days to avoid any possibility of high humidity biased samples.

During deployment and retrieval of the sorbet tube radiello a visual inspection is completed on the structure of the apparatus, checking for any abnormalities of the apparatus and influences on the Radiello. No calibration is required as the sorbet tubes are supplied by ALS and are of one-time use.

In total 23 samples were collected in 2023, with the highest SO_2 concentration of 0.23 parts per billion (ppb, June 18, 2023) and the highest NO_2 concentration of 4.9 ppb (Dec 19, 2023). As radiello samples are collected over a 7-day period, comparison to the CAAQS hourly NO_2 and SO_2 concentrations is not comparable. Results of the radiello were compared to the average annual standards. Table 3-1 in Section 3 above provides the objectives and standards for 1-hour concentrations. The annual average concentration of NO_2 and SO_2 were below the BACAAQO and CAAQS.

A website is used to convert the ppb units into ug/m3 to use against the Canadian objectives. Laboratory Certificates of Analysis are provided in Appendix E.

6.5.1 Results

The results of the radiello SO_2 and NO_2 samples are provided in the Table 6-11 2023 May to December Radiello Concentrations.

[4] Istituti Clinici Scientifici Maugeri. S.p.A-SB, Edition 01/2019

Table 6-12 2023 May to December Radiello Concentrations

Client Sample ID	Start Sample Date (Deployment Date)	End Sample Date (Collection Date)	Nitrogen dioxide (as NO_2)	Sulfur dioxide (as SO_2)	Nitrogen dioxide (as NO_2)	Sulfur dioxide (as SO_2)
BCAAQO Annual			**60**	**13**	**32**	**5**
CAAQS Annual			**32**		**17**	
		Units	**µg/m³**	**µg/m³**	**ppb**	**ppb**
Rad1	April 22, 203	May 6, 2023	1.6	<0.2	0.86	<0.11
Rad1	May 6, 2023	May 21, 2023	2.1	<0.2	1.10	<0.099
Rad1	May 21, 2023	June 3, 2023	1.5	<0.2	0.78	<0.11
Rad1	Jun 3, 2023	June 18, 2023	2.2	0.3	1.80	0.23
Rad1	June 18, 2023	Aug 15, 2023	1.6	<0.1	0.84	<0.033
Rad1	Aug 15, 2023	Aug 29, 2023	4.0	<0.3	2.10	<0.11
Rad1	Aug 29, 2023	Sept 5, 2023	3.8	<0.6	2.00	<0.22
RD1	Sept 5, 2023	Sept 11, 2023	4.1	<0.6	2.2	<0.24
Rad1	Sept 11, 2023	Sept 19, 2023	1.0	<0.5	0.99	<0.19
Rad1	Sept 19, 2023	Sept 26, 2023	0.5	<1.9	0.25	<0.71
Rad1	Sept 26, 2023	Oct 3, 2023	2.3	<0.6	1.20	<0.21
Rad1	Oct 3, 2023	Oct 10, 2023	<1.4	<0.6	<0.72	<0.22
Rad1	Oct 10, 2023	Oct 17, 2023	<1.4	<0.6	<0.72	<0.22
Rad1	Oct 17, 2023	Oct 26, 2023	3.2	<0.4	1.70	<0.16
Rad1	Oct 26, 2023	Oct 31, 2023	7.1	<0.8	3.80	<0.30
Rad1	Oct 31, 2023	Nov 7, 2023	4.7	<0.6	2.5	<0.21
Rad1	Nov 7, 2023	Nov 16, 2023	1.8	<0.4	0.98	<0.16
Rad1	Nov 16, 2023	Nov 21, 2023	<1.9	<0.8	<1.0	<0.30
Rad1	Nov 21, 2023	Nov 28, 2023	<5.8	<0.6	3.1	<0.21
Rad1	Nov 28, 2023	Dec 5, 2023	4.7	<0.5	2.5	<0.20
Rad1	Dec 5, 2023	Dec 12, 2023	6.2	<0.6	3.30	<0.22
Rad1	Dec 12, 2023	Dec 19, 2023	9.2	<0.6	4.9	<0.21
Rad1	Dec 19, 2023	Dec 26, 2023	2.6	<0.6	1.4	<0.21
Annual Average Concentration					1.57	0.23

Notes:
sources: British Columbia Ministry of Environment and Climate Change Strategy (BCAAQO, 2023) and Canadian Ambient Air Quality Standards (CAAQS, 2013)

The sample collected on Aug 15, 2023, was unintentionally deployed for 45 days due to the Davidson Creek wildfire. The sorbet tube was deployed on July 1st with the expectation it would be retrieved by July 10th; however, the Mine was evacuated on July 10th, 2023.

6.5.2 Quality Assurance and Quality Control

A standards QA/QC program was implemented during this assessment to ensure representative samples were collected and that representative analytical data were reported by the laboratory. The following outlines BWG personnel's procedures for the QA/QC program:

- Recorded field notes during the deployment and retrieval of the radiello;
- Samples were submitted using a completed COC.
- Submitted one field duplicate for laboratory analysis for 10% of samples collected.

Duplicate sample analysis ensures laboratory quality control as well as reproducibility of field sampling procedures.

The reproducibility of field sampling techniques is quantified by a parameter referred to as the relative percent difference (RPD). RPD is calculated using the following formula:

$$RPD = \frac{\mathrm{S} - \mathrm{D}}{0.5(\mathrm{S} + \mathrm{D})}\ x\ 100\%$$

Where: RPD = relative percent difference

S = sample value

D = duplicate value

Analytical error generally increases near the method reporting limit or lowest detection limit; therefore, the RPD calculation should not be applied unless the concentration of both samples is greater than five times the detection limit[5]. The analysis of the duplicate samples were not calculable (due to concentrations less than five times the detection limit) or non-detect, suggesting the sample and duplicate results are reproducible and reliable.

Table 6-13 Radiello QAQC Results

Sample ID	Lowest Detection Limit	RAD1	RAD1 DUP	Relative Percent Difference	RAD1	RAD1 DUP	Relative Percent Difference	RAD1	RAD1 DUP	Relative Percent Difference
Sample Date		11-Sep-2023			17-Oct-2023			19-Dec-2023		
Nitrogen Dioxide (ppb)	1	2.2	1.9	NA	<0.72	<0.72	NC	4.9	4.8	NA
Sulphur Dioxide (ppb)	1	<0.24	<0.24	NC	<0.22	<0.22	NC	<0.21	<0.21	NC
Nitrogen Dioxide (ug/m^3)	1	4.138	3.574	NA	<1.354	<1.354	NC	9.217	9.029	2.06%
Sulphur Dioxide (ug/m^3)	1	<0.629	<0.629	NC	<0.576	<0.576	NC	<0.550	<0.550	NC

Notes:
NC – Not calculable (due to concentrations less than five times the detection limit)
NA – Not Applicable

Samples submitted to ALS are subjected to laboratory QA/QC procedures (i.e., method blanks, laboratory control samples, lab duplicates, surrogate recoveries, and reference materials), which are documented in the laboratory COA provided in Appendix E. No outliers were noted for the 2023 data.

It was noted COA VA23C9505 (December 5th) sample arrived at Burnaby ALS in good condition; however, during the transfer to Cincinnati, USA the sample container broke. The sample was run for routine analysis and did not appear to be compromise as analytical results were similar to previously reported.

[5] ENV *British Columbia Field Sampling Manual* (2023).

6.6 Carbon Monoxide

BWG staff conducted CO monitoring once a week using a handheld MSA Altair 4XR gas monitoring. On average, at least 3 locations that appeared to be susceptible to high CO emissions were monitored with the handheld away from running trucks or other gas exhausts. These locations were chosen instead of collecting CO measurements at the PASS location due to equipment unavailability. The handheld monitor used completes an auto calibration before ever use to ensure accurate readings. The Environmental Monitor at each location will stand for 45 – 60 seconds or until the reading stabilizes prior to recording the measurement.

6.6.1 Results

Table 6-14 shows all the CO monitoring events for 2023.

Table 6-14 2023 May to December CO Monitoring Results

Monitoring Location	Date Monitored	CO Monitoring Results
BCAAQO (1-hour)		**13**
BCAAQO (8-hour)		**5**
Units		**PPM**
A-Trail Laydown - Fuel Station Area	May 8, 2023	0
Sedgman Construction Area and Warehouse	May 8, 2023	0
Maintenance Shop	May 8, 2023	0
Maintenance Shop	May 13, 2023	9
Bird Norseman tent/plant site	May 13, 2023	6
Norseman tents/plantsite	May 13, 2023	0
Maintenance Shop	June 16, 2023	0
Bird Norseman tent/plant site	June 16, 2023	0
Plant site warehouse	June 16, 2023	0
U-Dorm / Main entrance	June 16, 2023	0
A-Trail Laydown - Fuel Station Area	June 24, 2023	0
Maintenance Shop	June 24, 2023	0
Bird Norseman tent/plant site	June 24, 2023	0
Bird laydown - plant site	June 24, 2023	0
Maintenance Shop	July 2, 2023	0
Maintenance laydown	July 2, 2023	0
Sedgman laydown	July 2, 2023	0
Maintenance Shop	Aug 7, 2023	0
Plant site warehouse	Aug 7, 2023	0
Sedgman laydown	Aug 7, 2023	0
A-Trail Laydown - Fuel Station Area	Aug 20, 2023	0
Maintenance laydown	Aug 20, 2023	0
Warehouse Tent	Aug 20, 2023	0
A-Trail Laydown - Fuel Station Area	Sept 2, 2023	0

Monitoring Location	Date Monitored	CO Monitoring Results
BCAAQO (1-hour)		**13**
BCAAQO (8-hour)		**5**
Units		**PPM**
Plant site warehouse	Sept 2, 2023	0
U-Dorm / Main entrance	Sept 2, 2023	0
Behind A-dorm / Waste Stream	Sept 2, 2023	0
Construction Camp/ Core Shack	Sept 2, 2023	0
Maintenance Shop	Sept 10, 2023	1
Plant site warehouse	Sept 10, 2023	0
Sedgman laydown	Sept 10, 2023	0
Maintenance Shop	Sept 16, 2023	0
Bird laydown - plant site	Sept 16, 2023	0
Maintenance laydown	Sept 16, 2023	0
Maintenance laydown	Sept 23, 2023	0
Warehouse Tent	Sept 23, 2023	0
Main Camp Entrance	Sept 23, 2023	0
A-Trail Laydown - Fuel Station Area	Oct 1, 2023	0
Maintenance Shop	Oct 1, 2023	0
Plant site warehouse	Oct 1, 2023	0
U-Dorm / Main entrance	Oct 1, 2023	0
Bird laydown - plant site	Oct 1, 2023	0
Maintenance laydown	Oct 1, 2023	0
Sedgman laydown	Oct 1, 2023	0
Construction Camp/ Core Shack	Oct 1, 2023	0
A-Trail Laydown - Fuel Station Area	Oct 7, 2023	0
Maintenance Shop	Oct 7, 2023	0
Plant site warehouse	Oct 7, 2023	0
U-Dorm / Main entrance	Oct 7, 2023	0
Bird laydown - plant site	Oct 7, 2023	0
Maintenance laydown	Oct 7, 2023	0
Sedgman laydown	Oct 7, 2023	0
Maintenance laydown	Oct 17, 2023	0
Main Camp Entrance	Oct 17, 2023	0
WMP	Oct 17, 2023	0
Maintenance Shop	Oct 21, 2023	0
Plant Site	Oct 21, 2023	0
Earthworks HeadQuarters	Oct 21, 2023	0
A-Trail Laydown - Fuel Station Area	Oct 28, 2023	0
Maintenance Shop	Oct 28, 2023	0
Warehouse Tent	Oct 28, 2023	0
Ore Body Pad - Lay down Area	Oct 28, 2023	0
A-Trail Laydown - Fuel Station Area	Nov 5, 2023	0
Plant site warehouse	Nov 5, 2023	1

Monitoring Location	Date Monitored	CO Monitoring Results
BCAAQO (1-hour)		**13**
BCAAQO (8-hour)		**5**
Units		**PPM**
Ore Body Pad - Lay down Area	Nov 5, 2023	0
Bird laydown - plant site	Nov 12, 2023	0
Maintenance laydown	Nov 12, 2023	0
Pump Pad (C- Trail)	Nov 12, 2023	0
Maintenance Shop	Nov 18, 2023	0
Plant Site	Nov 18, 2023	0
Earthworks HeadQuarters	Nov 18, 2023	0
A-Trail Laydown - Fuel Station Area	Nov 28, 2023	0
Maintenance Shop	Nov 28, 2023	0
Plant site warehouse	Nov 28, 2023	0
U-Dorm / Main entrance	Nov 28, 2023	0
Bird laydown - plant site	Nov 28, 2023	0
Maintenance laydown	Nov 28, 2023	0
Sedgman laydown	Nov 28, 2023	0
Construction Camp/ Core Shack	Nov 28, 2023	0
ERT Tent/ Plant Site Warehouse	Dec 4, 2023	0
Water Management Pond - A-Trail	Dec 4, 2023	0
Finning / Cat Laydown	Dec 4, 2023	0
Security Gate	Dec 9, 2023	0
HEAP Pad	Dec 9, 2023	0
Earthworks HeadQuarters	Dec 16, 2023	0
KODE Pad	Dec 16, 2023	0
Site Service Shop	Dec 16, 2023	0
Plant Site	Dec 23, 2023	0
Site Service Shop	Dec 23, 2023	0
A-Trail Laydown / Mobile Maintenance	Dec 23, 2023	0
Waste Management Pond - A-Trail	Dec 23, 2023	0
A-Trail Laydown - Fuel Station Area	Dec 31, 2023	0
Plant site warehouse	Dec 31, 2023	0
Bird laydown - plant site	Dec 31, 2023	0
Construction Camp/ Core Shack	Dec 31, 2023	0
Site Service Shop	Dec 31, 2023	0
Mobile Maintenance	Dec 31, 2023	0
Annual Average Concentration[d]		0.18
Maximum Concentration		9

Although not directly comparable to the BCAAQO which require either 1-hour or 8-hour averages, none of the CO Monitoring events exceeded the value of the 1-hour BCAAQO in 2023. The highest CO concentration of 9 ppm was observed on May 13, 2023, at the Maintenance Shop. The annual average of all CO monitoring events was 0.18 ppm.

No CO monitoring was conducted between July 9 to August 2, 2023, as the Mine was evacuated due to the Davidson Creek Wildfire.

7 Community Feedback Mechanism

Pursuant to DS Condition 6.3, BWG has established a feedback mechanism to manage input and complaints related to exposure to dust from the Project during construction, operation, and decommissioning. Complaints may arise from Project-related use of the FSRs between Vanderhoof and the Project site. Monitoring activities will include a review of any complaints received from the public related to fugitive dust and air quality and an initial response within 48 hours. Complaints will be carefully investigated, tracked and logged, contributing factors that may have resulted in the complaint, and any actions that were undertaken and follow-up to address the complaint. Complaints may require a more in-depth root cause analysis and result in modification of the Plan.

As of writing this report no complaints specific to dust and/or air quality have been received by BWG.

8 Summary

The 2023 Annual Monitoring Report for Air Quality and Fugitive Dust Management provides a summary of environmental incidents and complaints, all monitoring under permits, an assessment of the monitoring data, and recommendations as appropriate. Monitoring was conducted and data analyzed to identify potential air quality concerns at the mine site. Based on the sampling and analytical program findings, the following summary of activities onsite and monitoring is provided:

- In 2023 the following activities were conducted at the mine site that may have resulted in the emissions of fugitive dust:
    - Land clearing and earthworks for the construction camp and plant site.
    - Construction and use of unpaved access and mine roads.
    - Material handling/re-handling at aggregate and topsoil stockpiles.
    - Parking lot and road grading.
    - Construction of water management structures (e.g., diversion channels)
    - Aggregate extraction from borrow pits.
    - Borrow and Aggregate Crushing and Screening; and
    - Concrete Batch Plant operations.
- A range of mitigation measures were applied to limit the emissions of fugitive dust, including the use of water trucks, spray bars, inspections, and compaction.
- An on-site wildfire started on July 10th, Davidson Creek (File Number: G41493), and grew to 4,808 hectares in size, burning approximately 60% of the mine site. BWG evacuated all employees on July 9th with a gradual return to site starting the week of July 24th. Construction activities fully recommenced on August 3rd.
- The BWG High station mean annual temperature was 3.3°C and the BWG Low station was 5.0°C. The annual precipitation at the BWG High station was 512 mm and 361 mm at the BWG Low station in 2023. In August 2023, the two climate stations were each upgraded with telemetry modem, which added real-time weather monitoring capability to the Mine. This upgrade significantly improved response times to sensor malfunction and repair. Additionally, accessing

real-time weather data via an interactive dashboard improves the Mine's site operation and management planning. Meteorological data was collected between January and December 2023.

- No point source discharges occurred in 2023.
- As part of the CFMP dustfall collectors were deployed from September 3 to 8, 2023. ERM's sampling crew deployed five out of eight dustfall containers, while the remaining three dustfall containers were set up by the BWG environmental team. Four dustfall stations were located in the near-field area at sites CFMP-SV-004, -006, -014, and -019; and four sites were located in the control area at sites CFMP-SV-024, -027, -032, and -040. Mean total dustfall amount at impact sites was 4.34 mg, whereas total dustfall was not detectable at any of the control sites. Only aluminum, iron, lead, and manganese were sufficiently (>30% of samples) detectable in dustfall to calculate summary statistics. Three out of four impact sites had detectable levels of iron and lead, whereas lead was not detectable at control sites and iron was only detectable in one of the four control sites. Zinc was detectable at one impact site. Concentrations of COPCs overall were low.
- $PM_{2.5}$ exceeded the value of the 24-hour BCAAQO 9 times between May and December 2023. A true $PM_{2.5}$ exceedance of the BCAAQO is based on the 98th percentile of 24-hour measurements. This metric cannot be calculated in 2023 as there was not a 75% data completeness for $PM_{2.5}$ in 2023. PM_{10} exceeded the 24- hour BCAAQO 12 times between May and December 2023. The highest concentration of $PM_{2.5}$ (192 ug/m^3) and PM_{10} (278 ug/m^3) were both observed on August 28, 2023. Elevated PM concentrations were attributed to the maintenance shop wood burning furnace, exploration camp expansion construction, as well as local and regional wildfires during the summer months and strong wind gusts with entrained wind.
- In total 23 radiello samples were collected in 2023, with the highest SO_2 concentration of 0.23 ppb (June 18, 2023) and the highest NO_2 concentration of 4.9 ppb (Dec 19, 2023). The annual average concentration of NO_2 and SO_2 were below the BACAAQO and CAAQS average annual standards.
- Although not directly comparable to the BCAAQO which require either 1-hour or 8-hour averages, none of the CO monitoring events exceeded the value of the 1-hour BCAAQO in 2023. The highest CO concentration of 9 ppm was observed on May 13, 2023, at the Maintenance Shop. The annual average of all CO monitoring events was 0.18 ppm. No CO monitoring was conducted between July 9 to August 2, 2023, as the Mine was evacuated due to the Davidson Creek Wildfire.

9 Recommendations

As part of the requirements of the AQFDMP and TRP a fugitive dust trigger-action-response-plan (TARP) table was developed. The TARP for the AQFDMP differs slightly from the TARP in the TRP due to specific requirements outlined in PE-110650 that was issued after the completion of the AQFDMP. Both the AQFDMP and TRP are required to undergo an annual review. Part of that review involves making recommendations for any updates to the plans.

The first recommended update to the AQFDMP is to align the TARP in Section 9.1 of the AQFDMP with the TARP in the TRP so that there is consistency across both management plans.

The second recommended update is to adjust the TARP so that it allows for distinguishing between air quality triggers that are a result of activity at the Mine versus triggers that are a result of regional effects such as wildfires. In 2023 there was significant wildfire activity both at the Mine as well as across British Columbia that affected air quality measured at the Mine (see Section 1.3). Currently Level 2 and 3 triggers for $PM_{2.5}$ and PM_{10} readings at the Partisol require notification and supporting information be provided to the BC ENV Director. BWG is proposing to alter the TARP to only require notification to the

BC ENV Director when the Level 2 and 3 triggers related to the Partisol are a result of Mine activities and not regional effects such as wildfires. Table 9-1 Fugitive Dust Trigger Action Response below provides an updated TARP that will replace the current TARP in both the AQFDMP and the TRP.

To determine if a Level 2 or 3 trigger for $PM_{2.5}$ and PM_{10} is a result of non-Mine related activity BWG will review data from regional air quality stations at Vanderhoof Court House and Quesnel Johnson Avenue, operated by ENV, and from wildfire related $PM_{2.5}$ modelling at firesmoke.ca. By looking at the data listed above and from onsite meteorology it will be determined if a true Level 2 or Level 3 trigger did occur. No other changes to the TARP are recommended.

In addition, as discussed in Section 8.3, BWG is currently looking to update PE-110650 to move the location of the Partisol to better measure overall air quality at the Mine and not be as influenced by emissions sources that are very close to the Partisol.

Table 9-1 Fugitive Dust Trigger Action Response

Component	Location	Permit Limit	Level	Trigger	Management Response	Documentation, and People and Parties to Notify
Fugitive Dust (TSP)	Unpaved Roads	Indeterminant[1]	None	Dust plume less than half the height of a haul truck tire.	No action. Continue work in accordance with site management procedures.	No action.
			Level 1, Low	Dust plume less than half the size of a haul truck for any period of time up to 30 minutes.	Limited watering of high traffic areas. Repeat visual inspection every 2 hours depending on weather.	Immediately report to Departmental Manager.
			Level 2, Medium	Dust plume same size as a haul truck extending beyond local area for periods longer than half a day.	Continuous watering of high traffic areas until dust plume subsides. Speed limit restrictions in high traffic areas.	Immediately report to Departmental Manager, Environmental Manager, Mine Manager and Qualified Professional. Immediately provide email notification and supporting information to the BC ENV Director[2]: envauthorizationsreporting@gov.bc.ca. After inspections are complete, a log of the findings will be filled out by the Departmental Manager.
			Level 3, High	Dust plume greater than the size of a haul truck for periods longer than 1 day, or when dust plumes extend beyond the active mine area/infrastructure.	Increase frequency of watering and if not successful examine longer use of alternative dust suppressants (e.g., calcium or magnesium chloride, lignin compounds, environmentally friendly oils or clay additives). Speed limit restrictions may be required if dust cannot be controlled by watering. Closure of certain routes may be required if dust cannot be controlled by watering or speed restrictions.	Immediately report to Departmental Manager, Environmental Manager, Mine Manager and Qualified Professional. Immediately provide email notification and supporting information to the BC ENV Director[2]: envauthorizationsreporting@gov.bc.ca. Notify Indigenous Nations. After inspections are complete, a log of the findings will be filled out by the Departmental Manager.
	Surface Earthworks	Indeterminant[1]	None	Minor localized dust (dust plumes that are less than 2 m in height) during construction and normal mine operations.	No action. Continue work in accordance with site management procedures.	No action.
			Level 1, Low	Visible dust plumes rising over 2 m above the active construction area for longer than 30 minutes.	Minimize material movement in areas with active construction or operation and heavy equipment use.	Immediately report to Departmental Manager.
			Level 2, Medium	Triggers per level 1 but with dust plume extending beyond local area for periods longer than half a day.	Application of water to exposed construction area (if this is a source).	Immediately report to Departmental Manager, Environmental Manager, Mine Manager and Qualified Professional. Immediately provide email notification and supporting information to the BC ENV Director[2]: envauthorizationsreporting@gov.bc.ca. After inspections are complete, a log of the findings will be filled out by the Departmental Manager.
			Level 3, High	Extensive areas of dust generation with large dust plumes for periods longer than 1 day or when dust plumes extend beyond the active mine area/ infrastructure.	Increase frequency of watering and if not successful apply gravel to exposed construction area (if this is a source). Investigate long term solutions if dust plumes persist.	Immediately report to Departmental Manager, Environmental Manager, Mine Manager and Qualified Professional. Immediately provide email notification and supporting information to the BC ENV Director[2]: envauthorizationsreporting@gov.bc.ca. Notify Indigenous Nations After inspections are complete, a log of the findings will be filled out by the Departmental Manager.
Fugitive Dust (TSP) *(cont'd)*	Stockpiles	Indeterminant[1]	None	Minor localized dust (dust plumes that are less than 2 m in height) during construction and normal mine operations.	No action. Continue work in accordance with site management procedures.	No action.

Component	Location	Permit Limit	Level	Trigger	Management Response	Documentation, and People and Parties to Notify
			Level 1, Low	Visible dust plumes rising over 2 m above the ground for longer than 30 minutes.	Turn on spray bar sprinklers[5]. During periods where temperatures are below freezing add reagents to control dust.	Immediately report to Departmental Manager.
			Level 2, Medium	Triggers per level 1 but with dust plume extending beyond local area for periods longer than half a day.	Increase the rate of water application using spray bar sprinklers[5]. During periods where temperatures are consistently below freezing, add reagents to control dust.	Immediately report to Departmental Manager, Environmental Manager, Mine Manager and Qualified Professional. Immediately provide email notification and supporting information to the BC ENV Director[2]: envauthorizationsreporting@gov.bc.ca. After inspections are complete, a log of the findings will be filled out by the Departmental Manager.
			Level 3, High	Extensive areas of dust generation with large dust plumes for periods longer than 1 day or when dust plumes extend beyond the active mine area/infrastructure.	Examine the possibility of re engineering the spray bar sprinklers[5] to provide more effective water coverage of transfer points.	Immediately report to Departmental Manager, Environmental Manager, Mine Manager and Qualified Professional. Immediately provide email notification and supporting information to the BC ENV Director[2]: envauthorizationsreporting@gov.bc.ca. Notify Indigenous Nations. After inspections are complete, a log of the findings will be filled out by the Departmental Manager.
	Material handling transfer locations	Indeterminant[1]	None	Minor localized dust (dust plumes that are less than 2 m in height) during construction and normal mine operations.	No action. Continue work in accordance with site management procedures.	No action.
			Level 1, Low	Visible dust plumes rising over 2 m above the ground for longer than 30 minutes.	Turn on spray bar sprinklers[5]. During periods where temperature are below freezing add reagents to control dust.	Immediately report to Departmental Manager.
			Level 2, Medium	Triggers per level 1 but with dust plume extending beyond local area for periods longer than half a day.	Increase the rate of water application using spray bar sprinklers. During periods where temperature are below freezing, add reagents to control dust.	Immediately report to Departmental Manager, Environmental Manager, Mine Manager and Qualified Professional. Immediately provide email notification and supporting information to the BC ENV Director[2]: envauthorizationsreporting@gov.bc.ca. After inspections are complete, a log of the findings will be filled out by the Departmental Manager.
			Level 3, High	Extensive areas of dust generation with large dust plumes for periods longer than 1 day or when dust plumes extend beyond the active mine area/infrastructure.	Examine the possibility of re engineering the spray bar sprinklers to provide more effective water coverage of transfer points.	Immediately report to Departmental Manager, Environmental Manager, Mine Manager and Qualified Professional. Immediately provide email notification and supporting information to the BC ENV Director[2]: envauthorizationsreporting@gov.bc.ca. Notify Indigenous Nations. After inspections are complete, a log of the findings will be filled out by the Departmental Manager.
PM_{10} and $PM_{2.5}$	Operations Camp	PM_{10} (24-hour average): 50 µg/m^3 $PM_{2.5}$ (24-hour average): 25 µg/m^3	None	The PM_{10} and $PM_{2.5}$ concentration at the Operations Camp is less than or equal to 50% of the Ambient Air Quality Objective[4], or less than or equal to the baseline value. PM_{10} (24-hour average): ≤25 µg/m^3 $PM_{2.5}$ (24-hour average): ≤12.5 µg/m^3 $PM_{2.5}$ (annual average): ≤4 µg/m^3	No action. Continue monitoring.	No action.

Component	Location	Permit Limit	Level	Trigger	Management Response	Documentation, and People and Parties to Notify
		$PM_{2.5}$ (annual average): 8 µg/m^3	Level 1, Low	The PM_{10} and $PM_{2.5}$ concentration at the Operations Camp is greater than 50% but less than or equal to 80% of the Ambient Air Quality Objective[4], and is above the baseline value, and the site air quality is not influenced by wildfire smoke[6]. PM_{10} (24-hour average): >34 and ≤40 µg/m^3 $PM_{2.5}$ (24-hour average): >12.5 and ≤20 µg/m^3 $PM_{2.5}$ (annual average): >4 and ≤6.4 µg/m^3	Continue monitoring. Develop causal analysis and associated mitigations in addition to a schedule for implementation.	Immediately report to Departmental Manager.
			Level 2, Medium	The PM_{10} and $PM_{2.5}$ concentration is greater than 80% but less than or equal to 100% of the Ambient Air Quality Objective[4], and the site air quality is not influenced by wildfire smoke[6]. PM_{10} (24-hour average): >40 and ≤50 µg/m^3 $PM_{2.5}$ (24-hour average): >20 and ≤25 µg/m^3 $PM_{2.5}$ (annual average): >6.4 and ≤8 µg/m^3	Continue monitoring. Develop causal analysis and associated mitigations in addition to a schedule for implementation. Implement mitigations developed at the low action level.	Immediately report to Departmental Manager, Environmental Manager, Mine Manager and Qualified Professional. Immediately provide email notification and supporting information to the BC ENV Director[2]: envauthorizationsreporting@gov.bc.ca. After inspections are complete, a log of the findings will be filled out by the Departmental Manager.
			Level 3, High	The PM_{10} and $PM_{2.5}$ concentration is greater than the Ambient Air Quality Objective[4], and the site air quality is not influenced by wildfire smoke[6]. PM_{10} (24-hour average): >50 µg/m^3 $PM_{2.5}$ (24-hour average): >25 µg/m^3 $PM_{2.5}$ (annual average): >8 µg/m^3	Continue monitoring. Implement mitigations developed at the medium action level.	Immediately report to Departmental Manager, Environmental Manager, Mine Manager and Qualified Professional. Immediately provide email notification and supporting information to the BC ENV Director[2]: envauthorizationsreporting@gov.bc.ca. Notify Indigenous Nations After inspections are complete, a log[3] of the findings will be filled out by the Departmental Manager.

Notes:
[1] The air discharge Permit 110650 states the maximum authorized rate of discharge for fugitive dust is indeterminant (BC ENV 2023).
[2] The air discharge Permit 110650 states: "4.2.5 If any medium or high triggers listed in the TRP are exceeded, the permittee must immediately provide notification to the director via email to envauthorizationsreporting@gov.bc.ca. This notification must include the following information: a) Any supporting data confirming the exceedance of the trigger, and b) A summary of the actions taken and/or planned in response to the trigger exceedance." (BC ENV 2023)
[3] The log will contain information on the location where dust plumes were visible, their approximate size and temporal persistence, activities occurring that may have caused the dust plume, meteorological conditions at the time and any actions taken. See Section 3 for more information.
[4] The most recent BC Ambient Air Quality Objectives are to be used: BC ENV 2022a. These values will be updated by the government over time.
[5] Spray bar sprinklers will be installed once trialing is complete.
[6] The influence of regional and mine site wildfire smoke will be determined by comparing contemporaneous measured concentrations of PM_{10} and $PM_{2.5}$ at the Operations Camp to Vanderhoof Court House (ENV) and Quesnel Johnson Avenue (ENV) and by examining $PM_{2.5}$ concentrations due to wildfires as modelled by firesmoke.ca.

10 Signature Page

As per PE110650 requirements the annual reports are to be prepared by a qualified professional and be submitted to ENV. This reporting also conforms to the requirements outlined in Developing a Fugitive Dust Management Plan for Industrial Projects (BC EMLI & ENV, 2023).

X

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APPENDIX A Air Quality and Fugitive Dust Management Plan, September 2023

ARTEMIS GOLD INC

Blackwater Mine

Air Quality and Fugitive Dust Management Plan

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Work Instructions

Air Quality and Fugitive Dust Management Plan

Version:	H.1
Replaces:	G.1
Creation Date:	09/01/2023
Scheduled Review Date:	
Review Date:	
Document Team Members:	
Document Owner:	
Document Approver:	
Related Documents:	
Key Contacts:	
Change Requests:	

Acronyms and Abbreviations

Indigenous nations	Lhoosk'uz Dené Nation, Ulkatcho First Nation, Nadleh Whut'en First Nation, Stellat'en First Nation, Saik'uz First Nation, and Nazko First Nation (as defined in the Project's Environmental Assessment Certificate #M19-01)
AAQO	Ambient Air Quality Objective
Application or Joint MA/EMA Application	Joint *Mines Act* / *Environmental Management Act* Permits Application
AQDMP	Air Quality and Fugitive Dust Management Plan
AQO	Air Quality Objective
Artemis	Artemis Gold Inc.
BC	British Columbia
BW Gold or Proponent	BW Gold LTD.
CAAQs	Canadian Ambient Air Quality Standards
CCME	Canadian Council of Ministers of the Environment
CEA Agency	Canadian Environmental Assessment Agency
CEO	Chief Executive Officer
CO	Carbon monoxide
COO	Chief Operating Officer
CFMP	Country Foods Monitoring Plan
CM	Construction Manager
COO	Chief Operating Officer
DS	Decision Statement
EAC or Certificate	Environmental Assessment Certificate
EC	Environment Canada
ECCC	Environment and Climate Change Canada
ECD	Environmental Control Dam
ELoMC	Environmental Life of Mine Committee

EM	Environmental Manager
EMLI	Ministry of Energy, Mines and Low Carbon Innovation
EMP	Environmental Management Plan
EMPR	Ministry of Energy, Mines and Petroleum Resources
ENV	Ministry of Environment and Climate Change Strategy
EPCM	Engineering, Procurement and Construction Management
FLNRORD	Ministry of Forests, Lands, Natural Resource Operations and Rural Development
FSR	Forest Service Road
FUP	Follow-up Program
GM	General Manager
h	Hour
ha	Hectares
HHRA	Human Health Risk Assessment
HQ	Hazard quotient
HVAC	Heating, ventilation and air conditioning
Indigenous groups or Aboriginal Peoples	Lhoosk'uz Dené Nation, Ulkatcho First Nation, Nadleh Whut'en First Nation, Saik'uz First Nation, Stellat'en First Nation, Nazko First Nation, Skin Tyee Nation, Tŝilhqot'in Nation, Métis Nation British Columbia, and Nee-Tahi-Buhn Band (as defined in the Project's federal Decision Statement)
km	Kilometre
KP	Knight Piésold Ltd.
LGO	Low grade ore
MAR	Mine Access Road
MOE	Ministry of Environment
MOH	Ministry of Health
MP	Management plan
Mtpa	Million tonnes per annum

New Gold	New Gold Inc.
NOx	Nitrogen oxides
OVB	Overburden
PASS	Passive Air Sampling System
PM	Particulate matter
POC	Parameter of concern
POPC	Parameter of potential concern
Project	Blackwater Gold Project
QA/QC	Quality control/quality assurance
QRP	Qualified Registered Professional
SO_2	Sulphur dioxide
SOP	Standard operating procedure
t	Tonne
Tatelkus Lake 28	Tatelkus Lake Indian Reserve 28
TSF	Tailings Storage Facility
µm	Microns
WMMP	Wildlife Management and Monitoring Plan
VP	Vice President

1.0 Purpose and Scope

The purpose of the Air Quality and Fugitive Dust Management Plan (AQDMP) is to identify measures to minimize the effects of the Project's air emissions on human health and the natural environment. The AQDMP identifies the Project's fugitive dust-emitting sources and mitigation and contingency measures aimed at effectively controlling dust emissions.

Pursuant to Part 2, Section 14 of the *Environmental Management Act*, BW Gold has received an authorization (#110650) on (May 2, 2023) for air discharges during the Construction and Operation phases of the Blackwater mine as follows:

- Discharge of fugitive dust generated at the mine site during the Construction and Operations phases; and
- Discharge of air emissions from the processing plant and assay lab during the Operations phase.

The AQDMP was developed to meet the Joint Application Information Requirements for *Mines Act/ Environmental Management Act* Permits (BC EMPR & ENV 2019). It also addresses the requirements of Environmental Assessment Certificate (EAC) #M19-01 Condition 20 and federal Decision Statement (DS) Conditions 6.1, 6.3, 6.12 and 6.15. The AQDMP also includes the information requested in Developing a Fugitive Dust Management Plan for Industrial Projects (Guidance; EMPR & ENV 2018).

Concordance tables identify where the requirements in EAC Condition 20 and DS conditions are met, and are provided in Appendix A and Appendix B respectively. A concordance table identifying where the requirements in the Guidance (EMPR & ENV 2018) are met is provided in Appendix C. The concordance tables have been developed for the purposes of compliance determination for each agency (e.g., ENV, EMLI, IAAC, and EAO) understanding where the specific authorization requirements are documented. For example, BW expects that IAAC would determine BW's compliance with NOx and SOx monitoring and not BC ENV. The AQDMP for the Transmission Line is provided in Appendix D.

1.1 Company Information

BW Gold LTD. (BW Gold) is a wholly owned subsidiary of Artemis Gold Inc., a publicly traded company listed on the TSX Venture Exchange (TSX-V: ARTG; https://www.artemisgoldinc.com). Artemis and BW Gold are incorporated in BC (#71616 9511 and #73237 6876 respectively).

The BW Gold corporate office is in Vancouver, BC:

Physical Mailing Address:	Suite 3083 – 595 Burrard Street, Vancouver BC V7L 1L3
Telephone:	(604) 558-1107
General Email:	info@artemisgoldinc.com

The Blackwater community office is in Vanderhoof, BC:

Physical Mailing Address:	139 – 1st Street, P.O. Box 440
Mailing Address:	P.O. Box 440, Vanderhoof BC V0J 3A0
Telephone:	(250) 567-3276
General Email:	office.blackwater@artemisgoldinc.com

1.2 Existing Permits

BW Gold has a permitted diesel-fired putrescible waste incinerator (*Environmental Management Act* Authorization #106530), which is located near the exploration camp. The Authorization allows a maximum discharge rate of 110 m^3/minute and maximum waste feed of 1.1 tonnes/day. Authorized waste for incineration includes putrescible camp waste, paper, cardboard and lumber scraps that cannot be recycled. Condition 2.1.3 of Authorization #106530 requires that every effort be made to minimize incineration of plastics.

BW Gold has an air discharge permit (*Environmental Management Act* Authorization #110650) that authorizes discharges from 12 sources. The Permit also requires the development of an incinerator operating plan and this AQDMP that includes a trigger plan. The Plan also details the monitoring and reporting requirements.

1.3 Exclusions

Consistent with the Guidance (EMPR & ENV 2018), the AQDMP does not address occupational health and safety requirements pertaining to workplace exposures to dust. Worker health and safety at mine sites is regulated by the Health, Safety and Reclamation Code for Mines in British Columbia (EMLI 2022). The Project's Occupational Health and Safety Program is provided under a separate cover.

Offsite infrastructure such as the FSR and Transmission Line are also excluded from the AQDMP.

1.4 Related Documents

Environmental Assessment Certificate M#19-01 Condition 20 requires the AQDMP to indicate how this plan informs the Country Foods Monitoring Plan (CFMP) and the Wildlife Mitigation and Monitoring Plan (WMMP).

The CFMP and WMMP will be evaluated for updates and revisions if corrective actions to reduce contaminant concentrations to avoid adverse health effects to receptors are implemented, based on exceedances of contaminants of potential concern (COPC) and corresponding concentrations (triggers) based on monitoring data from implementing the AQDMP, when compared to BC objectives (Entia 2021).

Fugitive dust deposition monitoring is not recommended by the Ministry of Environment and Climate Change Strategy (ENV) for the purposes of wildlife and human health protection (ENV 2020) and is not included in the AQDMP. However, as required by EAC Condition 41, analysis of dust for metal concentrations will be included in the CFMP and data collected under the CFMP can be used to inform the WMMP.

Monitoring of trace element (metals) uptake in vegetation and soils is considered in the Reclamation and Closure Plan and the CFMP. Plant tissue can be affected by the deposition of dust (particulate matter) containing metals generated by Project activities. Plants can also accumulate metals from the soil through uptake of metals through the root. Monitoring under the CFMP will determine whether concentrations of metals have changed in soil or in vegetation tissue because of Project activities. The results of trace metals monitoring and potential implications for wildlife based on results from monitoring under the CFMP will be addressed in the WMMP.

Results of the AQDMP for monitoring of particulate matter (Section 8.3.3) will inform the CFMP, as this monitoring is required by EAC Condition 41 for the CFMP.

2.0 Project Overview

The Blackwater Gold Project (the Project) is a gold and silver open pit mine located in central British Columbia (BC), approximately 112 kilometres (km) southwest of Vanderhoof, 160 km southwest of Prince George, and 446 km northeast of Vancouver.

The Project is presently accessed via the Kluskus Forest Service Road (FSR), the Kluskus-Ootsa FSR and a new mine access road which connects to the Kluskus-Ootsa FSR at km 142. The Kluskus FSR joins Highway 16 approximately 10 km west of Vanderhoof. The new, approximately 13.8 km road (Mine Access Road) was built to replace the existing exploration access road, which will be decommissioned. The new mine access road is at km 124.5. Driving time from Vanderhoof to the mine site is about 2.5 hours.

Major mine components include a tailings storage facility (TSF), ore processing facilities, waste rock, overburden and soil stockpiles, borrow areas and quarries, water management infrastructure, water treatment plants, accommodation camps and ancillary facilities. The gold and silver will be recovered into a gold-silver doré product and shipped by air and/or transported by road. Electrical power will be supplied by a new approximately 135 km, 230 kilovolt overland transmission line that will connect to the BC Hydro grid at the Glenannan substation located near the Endako mine, 65 km west of Vanderhoof.

The Blackwater mine site is located within the traditional territories of Lhoosk'uz Dené Nation (LDN), Ulkatcho First Nation (UFN), Skin Tyee Nation, and Tsilhqot'in Nation. The Kluskus and Kluskus-Ootsa FSRs and Project transmission line cross the traditional territories of Nadleh Whut'en First Nation (NWFN), Saik'uz First Nation (SFN), and Stellat'en First Nation (StFN; collectively, the Carrier Sekani First Nations) as well as the traditional territories of the Nazko First Nation (NFN), Nee Tahi Buhn Band, Cheslatta Carrier Nation, and Yekooche First Nation (BC EAO 2019a, 2019b).

Project construction is anticipated to take two years. Mine development will be phased with an initial milling capacity of 15,000 tonnes per day (t/d) for the first five years of operation. After the first five years, the milling capacity will increase to 33,000 t/d for the next five-years, and to 55,000 t/d in Year +11 until the end of the 23-year mine life. The Closure phase is Year +24 to approximately Year +36 and is defined by the duration required to fill the Open Pit to the target closure level and the TSF is allowed to passively discharge to Davidson Creek via a closure spillway. The Closure phase is shorter than that what was presented in the *Joint Mines Act* / *Environmental Management Act* Permits Application (March 2022) as a result of optimizations to the Project. The Post-closure is now estimated to begin in Year +37.

New Gold Inc. received Environmental Assessment Certificate #M19-01 (EAC) on June 21, 2019 under the 2002 *Environmental Assessment Act* (BC EAO 219c) and a Decision Statement (DS) on April 15, 2019 under the Canadian *Environmental Assessment Act*, 2012 (CEA Agency 2019). In August 2020, Artemis Gold Inc. (Artemis) acquired the mineral tenures, assets, and rights in the Blackwater Project that were previously held by New Gold Inc. On August 7, 2020, the Certificate was transferred to BW Gold LTD. (BW Gold), a wholly owned subsidiary of Artemis, under the 2018 *Environmental Assessment Act*. The Impact Assessment Agency of Canada notified BW Gold on September 25, 2020 to verify that written notice had been provided within 30 days of the change of proponent as required in Condition 2.16 of the DS, and that a process had been initiated to amend the DS.

BW Gold received *Mines Act* Permit M-246 on June 22, 2021, and *Environmental Management Act* Permit PE-110602 on June 24, 2021, authorizing early construction works for the Project. These works include clearing, grubbing ditching, and site levelling at the Plant Site location and sediment and erosion controls, including construction of ditches, diversions, and a sediment control pond (SCP). BW Gold received *Environmental Management Act* Permit PE-110652 on May 2, 2023, authorizing discharge of effluent to surface water and groundwater from the Blackwater mine. BW Gold received *Environmental Management Act* Permit PE-110650 on May 2, 2023 authorizing the discharge of air contaminants to the atmosphere from the Blackwater Mine.

3.0 Roles and Responsibilities

BW Gold has the obligation of ensuring that all commitments are met and that all relevant obligations are made known to mine personnel and site contractors during all phases of the mine life. A clear understanding of the roles, responsibilities, and level of authority that employees and contractors have when working at the mine site is essential to meet Environmental Management System (EMS) objectives.

Table 3-1 provides an overview of general environmental management responsibilities during all phases of the mine life for key positions that will be involved in environmental management. Other positions not specifically listed in Table 3-1 but that will provide supporting roles include independent environmental monitors, an Engineer of Record for tailings storage facilities and dams as required, an Independent Tailings Review Board, TSF qualified person, geochemistry Qualified Registered Professional (QRP), and other qualified persons and QRPs as required.

Table 3-1: Blackwater Gold Roles and Responsibilities

Position	Responsibility
Chief Executive Officer (CEO)	The CEO is responsible for overall Project governance. Reports to the Board.
Chief Operating Officer (COO)	The COO is responsible for engineering and Project development and coordinates with the Mine Manager to ensure overall Project objectives are being managed. Reports to the CEO.
Vice President (VP) Environment & Social Responsibility	The VP is responsible for championing the Environmental Policy Statement and EMS, establishing environmental performance targets and overseeing permitting. Reports to the COO.
General Manager (GM) Development	The GM Development is responsible for managing project permitting, the Project's administration services and external entities, and delivering systems and programs that ensure Artemis's values are embraced and supported: Putting People First, Outstanding Corporate Citizenship, High Performance Culture, Rigorous Project Management and Financial Discipline. Reports to the COO.
Mine Manager	The Mine Manager, as defined in the *Mines Act*, has overall responsibility for mine operations, including the health and safety of workers and the public, EMS implementation, overall environmental performance and protection, and permit compliance. The Mine Manager may delegate some of their responsibilities to other qualified personnel. Reports to the GM.
Construction Manager (CM)	The CM is accountable for ensuring environmental and regulatory commitments/ and obligations are being met during the construction phase. Reports to the GM.
Environmental Manager (EM)	The EM is responsible for the day-to-day management of the Project's environmental programs and compliance with environmental permits, updating EMS and Management Plans. The EM or designate will be responsible for reporting non-compliance to the CM, and Engineering, Procurement and Construction Management (EPCM) contractor, other contractors, the Company and regulatory agencies, where required. The EM informs the Environmental Monitors of current site conditions that may influence monitoring programs. Supports the CM and reports to the Mine Manager.

Position	Responsibility
Departmental Managers	Departmental Managers are responsible for implementation of the EMS relevant to their areas. Report to the Mine Manager.
Indigenous Relations Manager	Indigenous Relations Manager is responsible for Indigenous engagement throughout the life of mine. Also responsible for day-to-day management and communications with Indigenous groups. Reports to the VP Environment & Social Responsibility.
Community Relations Advisor	Community Relations Advisor is responsible for managing the Community Liaison Committee and Community Feedback Mechanism. Reports to the Indigenous Relations Manager.
Aboriginal Monitors	Aboriginal Monitors are required under EAC #M19-01 Condition 17 and will be responsible for monitoring for potential effects from the Project on the Indigenous interests. Aboriginal Monitors will be involved in the environmental monitoring, adaptive management and follow-up monitoring programs. Report to the EM.
Employees and Contractors	Employees and contractors are responsible for being aware of permit requirements specific to their roles and responsibilities. Report to Departmental Managers.
Qualified Registered Professionals or Qualified Persons	Qualified registered professionals and qualified persons will be retained to review objectives and conduct various aspects of environmental and social monitoring as specified in Environmental and Social Management Plans.

BW Gold will employ a qualified person as an EM who will ensure that the EMS requirements are established, implemented and maintained, and that environmental performance is reported to management for review and action. The EM is responsible for retaining the services of qualified persons or QRPs with specific scientific or engineering expertise to provide direction and management advice in their areas of specialization. The EM will be supported by a team of Environmental Monitors that will include Environmental Coordinators and Technicians and by a consulting team of subject matter experts in the fields of environmental science and engineering.

During the Construction phase, BW Gold will be entering into multiple Engineering, Procurement and Construction contracts, likely for the Transmission Line, Process Plant, Tailings and Reclaim System, and 25 kV Power Distribution. Each engineer/contractor will have their own CM and there will be a BW Gold responsible project manager and/or Superintendent who ultimately reports to the GM Development. Some of the scope, such as the TSF and Water Management Structures will be self-performed by BW Gold, likely using hired equipment. Other smaller scope packages may be in the form of Engineering, Procurement and Construction Management (EPCM) contracts. The EPCM contractors will report to the CMs who will ultimately be responsible for ensuring that impacts are minimized, and environmental obligations are met during the Construction phase. For non-EPCM contractors, who will perform some of the works on site, the same reporting structure, requirements, and responsibilities will be established as outlined above. BW Gold will maintain overall responsibility for management of the construction and operation of the mine site and will therefore be responsible for establishing employment and contract agreements, communicating environmental requirements, and conducting periodic reviews of performance against stated requirements.

The CM is accountable for ensuring that environmental and regulatory commitments/obligations are being met during the construction phase. The EM will be responsible for ensuring that construction activities are proceeding in accordance with the objectives of the EMS and associated management plans. The EM or designate will be responsible for reporting non-compliance to the CM and EPCM contractor, other contractors, and regulatory agencies, where required. The EM or designate will have the authority to stop

any construction activity that is deemed to pose a risk to the environment; work will only proceed when the identified risk and concern have been addressed and rectified.

Environmental management during operation of the Project will be integrated under the direction of the EM, who will liaise closely with Departmental Managers and will report directly to the Mine Manager. The EM will be supported by the VP of Environment and Social adhere adherence to corporate environmental standards. The EM will be accountable for implementing the approved management plans and reviewing them periodically for effectiveness. Departmental area managers (e.g., mining, milling, and plant/site services) will be directly responsible for implementation of the EMS, management plans, and standard operating procedures relevant to their areas. All employees and contractors are responsible for daily implementation of the practices and policies contained in the EMS.

During closure and post-closure staffing levels will be reduced to align with the level of activity associated with these phases. Prior to initiating closure activities, BW Gold will revisit environmental and health and safety roles and responsibilities to determine resources needed to meet permit monitoring and reporting requirements. The Mine Manager will maintain overall responsibility for management of Closure and Post-closure activities.

Pursuant to Condition 19 of the EAC #M19-01, Conditions A(10)(a-c) of the M-246 *Mines Act* Permit, Condition 3.7 of *Environmental Management Act* Permit #110652, BW Gold has established an Environmental Life of Mine Committee (ELoMC) to facilitate information sharing and provide advice on the development and operation of the Project, and the implementation of ELoMC conditions, in a coordinated and collaborative manner. Committee members include representatives of the BC EAO, UFN, LDN, NWFN, StFN, SFN, NFN, BC EMLI, BC ENV, and BC MOF/WLRS.

Pursuant to Condition 17 of the EAC #M19-01, Aboriginal Group Monitor and Monitoring Plan, BW Gold will retain or provide funding to retain a monitor for each Indigenous nations defined in the EAC #M19-01 prior to commencing construction and through all phases of the mine life. The general scope of the monitor's activities will be related to monitoring for potential effects from the Project on Indigenous nations' interests.

Pursuant to Part A. General, Section 10 of the *Mines Act* Permit M-246, BW Gold will establish a "Life of Mine Committee" by May 31, 2023. BW Gold will offer membership annually in the Life of Mine Committee to the Indigenous Communities referred to Condition A.8 and to Provincial Agencies, including but not limited to the Ministry of Energy, Mines and Low Carbon Innovation, Ministry of Environment and Climate Change Strategy, and the Ministry of Forests. Condition 10(b) states that the Permittee must ensure that the Life of Mine Committee scope of work includes: (i) review of existing and proposed environmental management activities; (ii) review of existing and proposed environmental monitoring activities; (iii) review of implemented and proposed reclamation and closure activities, in addition to other conditions.

4.0 Adaptive Management Framework

The AQDMP is a living document that will evolve over time in response to monitoring results and regulatory changes. The AQDMP incorporates adaptive management as follows:

- **Plan**
  - Identify and characterize fugitive dust sources;
  - Identify composition and size distribution of particulate emissions;
  - Identify contributing factors to dust generation;
  - Identify areas with potential air quality and dustfall impacts;
  - Describe fugitive dust control for each source; and
  - Prepare schedule for implementation and operation of control measures.
- **Do**
  - Implement mitigation measures;
  - Identify maintenance and record keeping procedures for control and monitoring equipment; and
  - Develop training procedures.
- **Monitor**
  - Conduct inspections and maintenance; and
  - Complete and maintain monitoring records.
- **Adjust**
  - Follow up on the evaluation of monitoring results;
  - Review of the monitoring program in terms of effectiveness in detecting effects;
  - Recommendations provided by a qualified professional for changes to the monitoring plan, objectives, frequency, methods, or timing;
  - Engagement tracking to record input from Indigenous groups and regulators such as the EAO, ENV and Canada Impact Assessment Agency; and
  - Revise the AQDMP as new and/or altered measures are introduced.

5.0 Facility Description and Setting

5.1 Physical Location and Access

The Project is an open pit gold and silver mine located approximately 112 kilometres (km) southwest of Vanderhoof and 160 km southwest of Prince George, BC. The Project falls within NTS map sheet 93F/02, centred at 5893000 N and 375400 E (UTM Zone 10 NAD83). The mine site is centred at 53°11'22.872" N and 124°52'0.437" W. The Project is accessed via the Kluskus Forest Service Road (FSR), the Kluskus-Ootsa FSR and a mine access road, which will connect to the Kluskus-Ootsa FSR at km 124.5.

Figure 5.1-1 and Figure 5.1-2 identifies the Project location and the access route from Vanderhoof in relation to nearby communities. The mine site is located within the traditional territories of LDN and UFN and downstream of the traditional territories of NWFN, SFN, and StFN (collectively, the Carrier Sekani First Nations).

BW Gold holds a 100% recorded interest in 328 mineral claims covering an area of 148,688 hectares (ha) distributed among the Blackwater, Capoose, Auro, Key, Parlane, and RJK claim blocks (Artemis 2020). The Blackwater mine site is located within the Blackwater claim block. Figure 5.1-2 identifies the mineral tenures within the proposed *Mines Act* permit boundary.

5.2 Environmental Setting

The Project is located on the Nechako Plateau, a region of flat to gently rolling terrain on the northern slope of Mount Davidson. The Project maintains two meteorological stations referred to as the Blackwater Low, and Blackwater High (discussed in Section 8.3.1). The mean annual wind speed at the Blackwater low elevation (1,050 masl) meteorological station (Blackwater Low) is approximately 2.2 m/s (7.9 km/h), with the wind direction being predominantly from the west and southwest. Strong southeast winds were also evident in the fall and winter at the Blackwater Low station (Figure 5.2-1). At the Blackwater high elevation (1,470 masl) station (Blackwater High) the wind direction is predominately from the west with strong southwest gusts during the fall and winter (Figure 5.2-2). The mean annual wind speed at the Blackwater High station is approximately 3.0 m/s (10.8 km/h). Meteorological baseline reports are provided in KP (2021a,b).

5.3 Facility and Process Description

The Project includes an open pit, Plant Site and processing plant, waste and topsoil stockpiles, borrow areas and TSF. The general arrangement of the proposed mine site at Year +23 (full mine buildout) is shown in Figure 5.3-1. Section 6 (Table 6-1) provides a list of site activities that could result in the generation of fugitive dust.

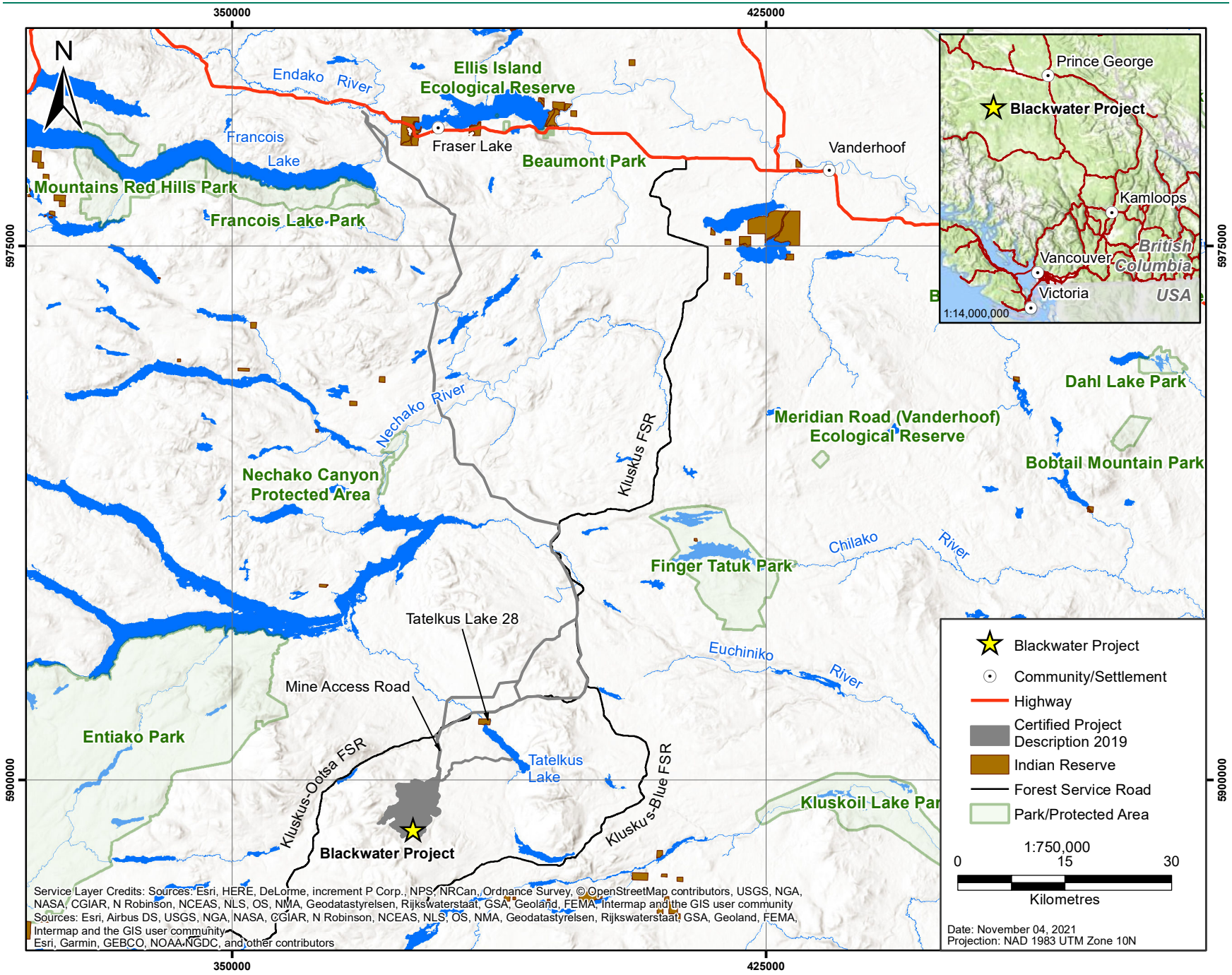


Figure 5.1-1: Blackwater Project Location

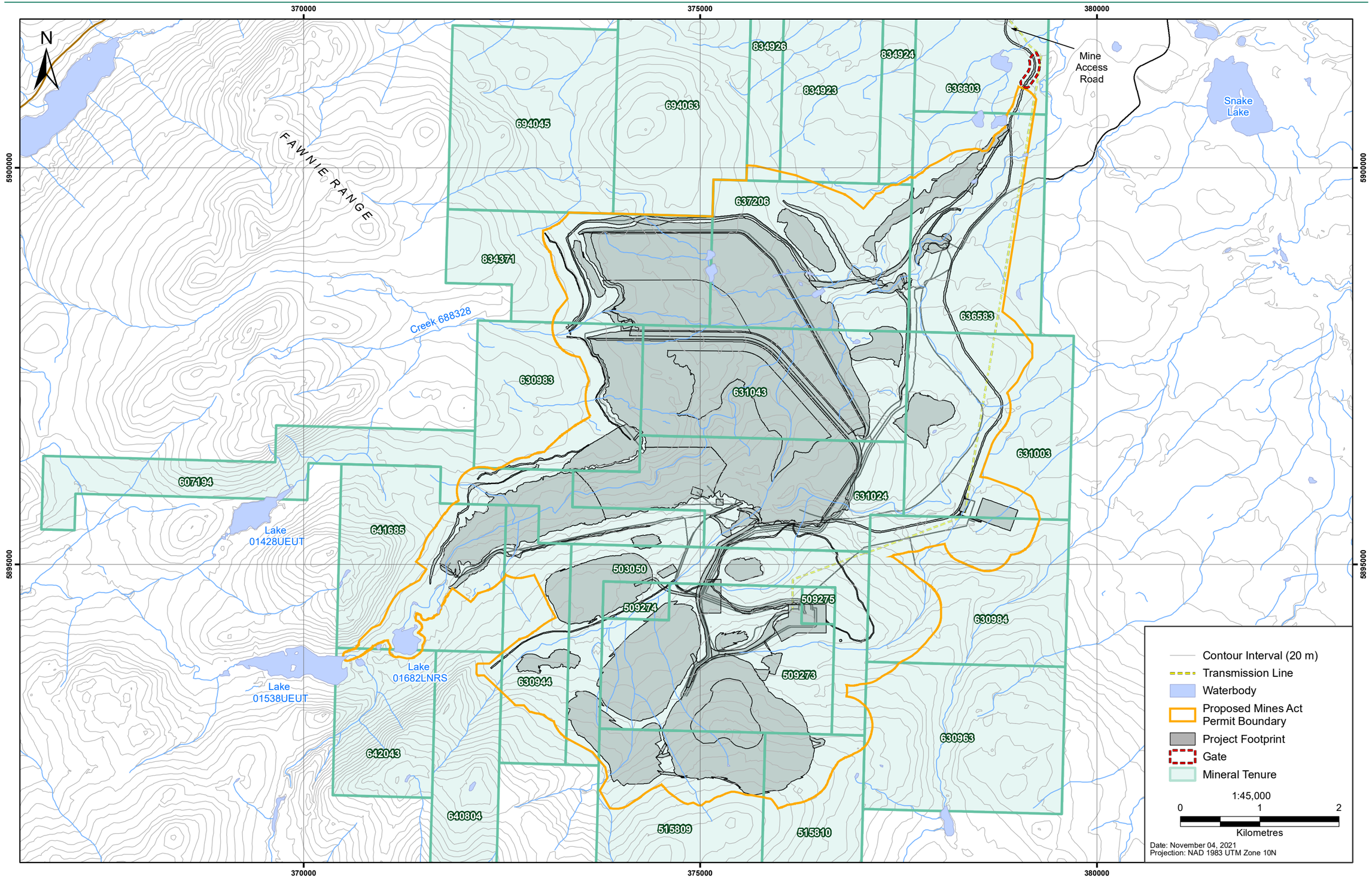
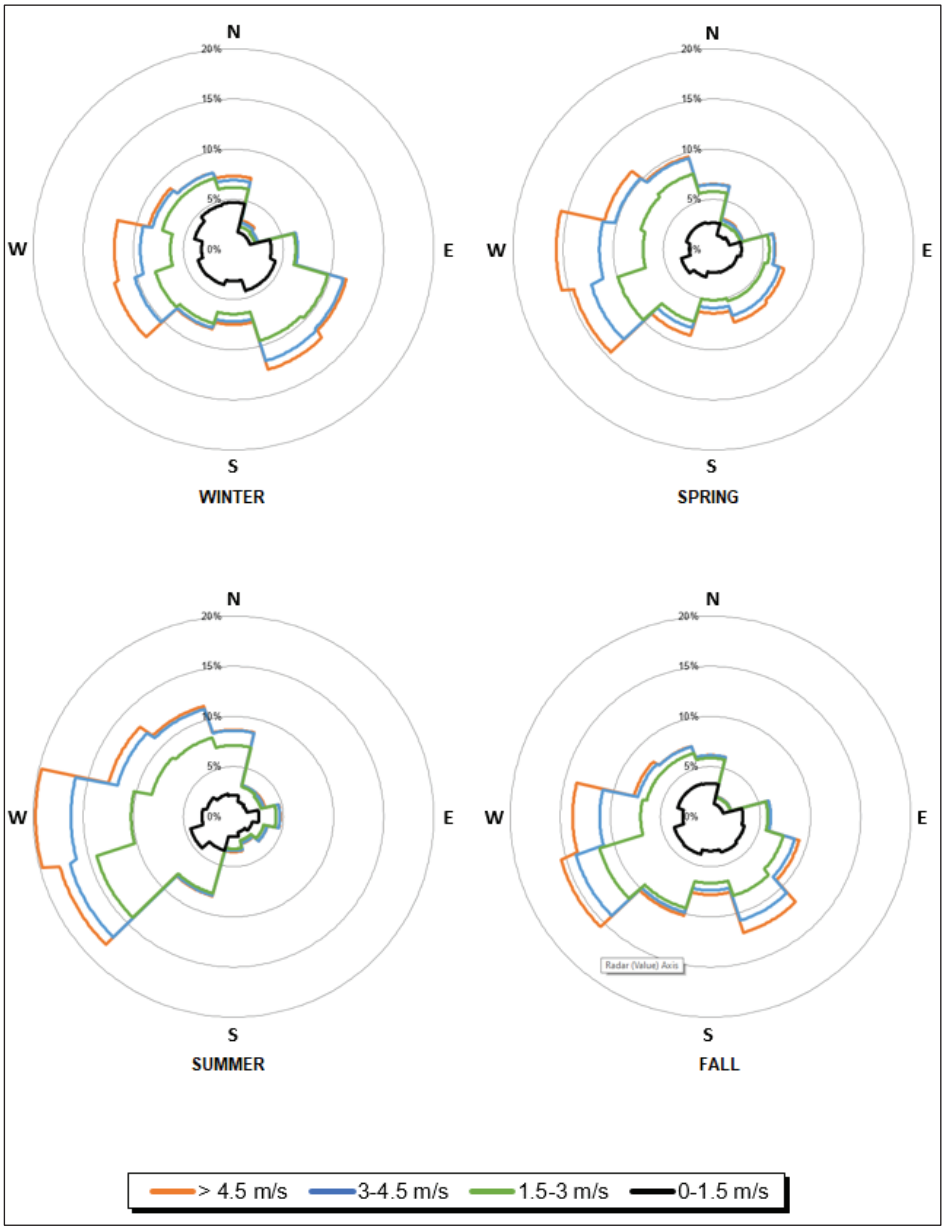


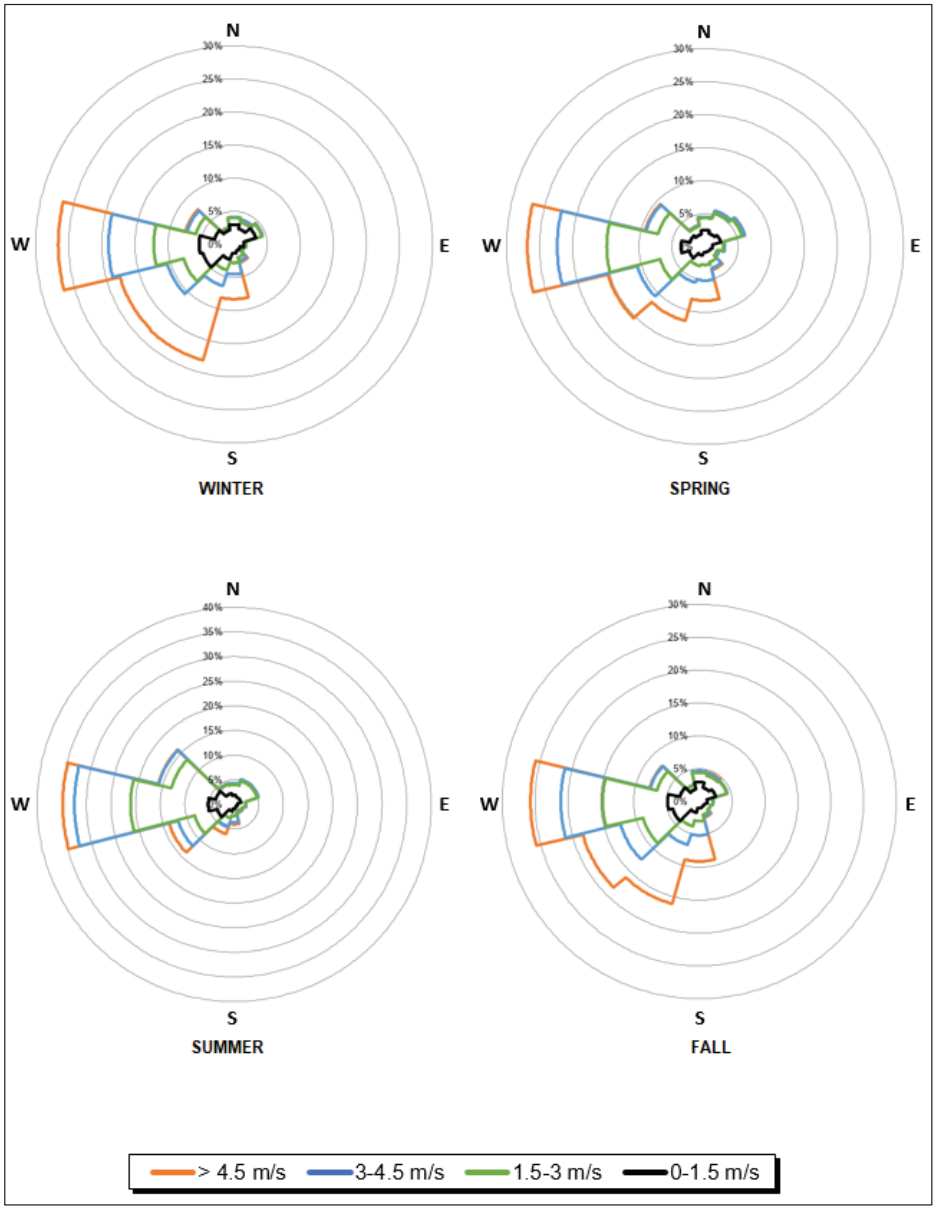
Figure 5.1-2: Blackwater Mineral Tenures within Proposed Mines Act Permit Boundary



NOTES:
1. WINTER CONSISTS OF DECEMBER TO FEBRUARY, SPRING CONSISTS OF MARCH TO MAY, SUMMER CONSISTS OF JUNE TO AUGUST, AND FALL CONSISTS OF SEPTEMBER TO NOVEMBER.
2. THE PREVAILING WIND DIRECTION IS THE ONE WITH THE LONGEST SPOKE (HIGHEST PERCENTAGE).

Figure 5.2-1: Blackwater Low Station Wind Roses

Source: Knight Piésold Consulting (2021).



NOTES:
1. WINTER CONSISTS OF DECEMBER TO FEBRUARY, SPRING CONSISTS OF MARCH TO MAY, SUMMER CONSISTS OF JUNE TO AUGUST, AND FALL CONSISTS OF SEPTEMBER TO NOVEMBER.
2. THE PREVAILING WIND DIRECTION IS THE ONE WITH THE LONGEST SPOKE (HIGHEST PERCENTAGE).

Figure 5.2-2: Blackwater High Station Wind Roses

Source: Knight Piésold Consulting (2021).

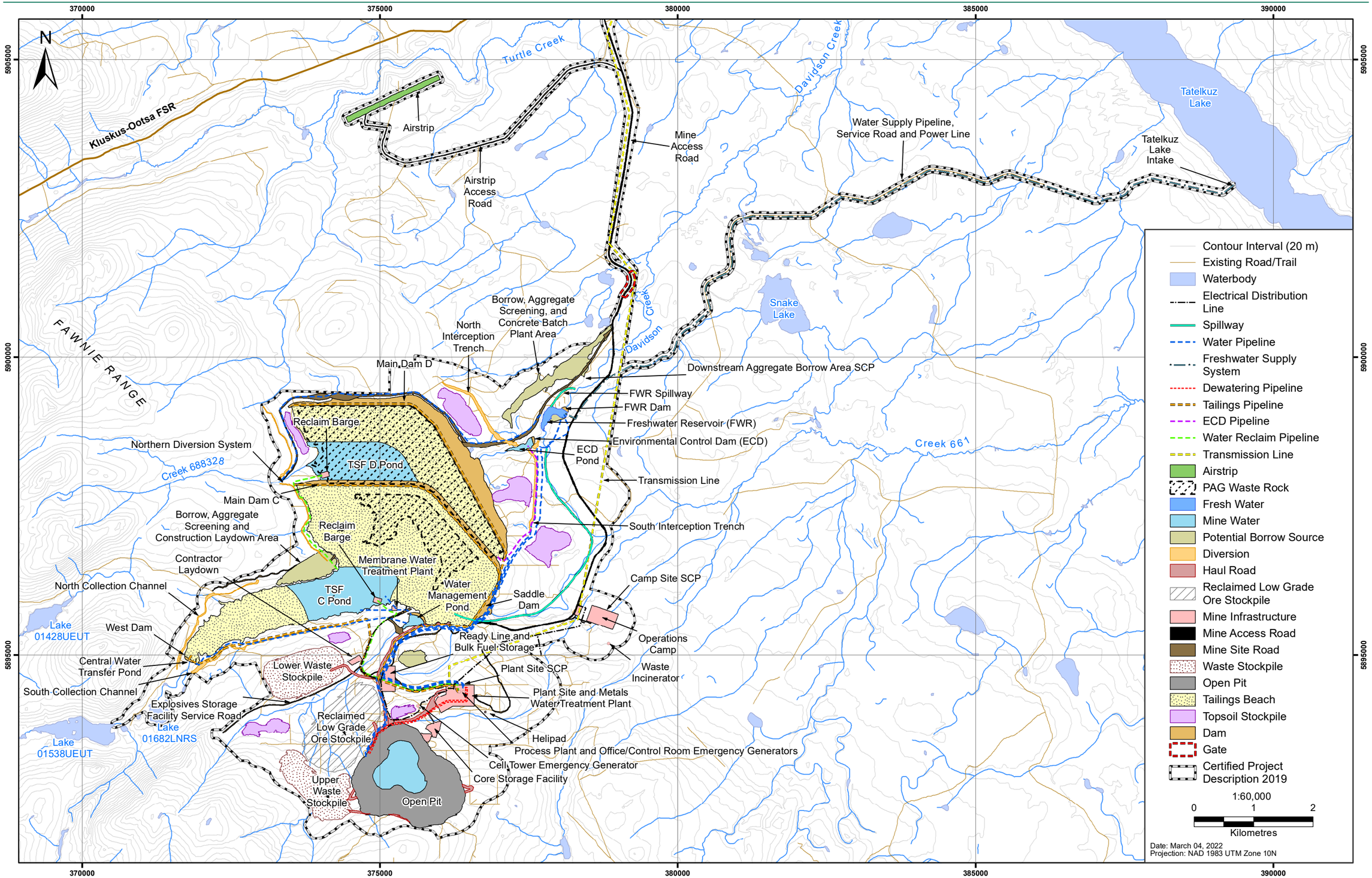


Figure 5.3-1: Mine Site General Arrangement (Year +23)

5.3.1 Open Pit

Ore will be extracted using drilling and blasting from the Open Pit located in the southern portion of the proposed mine site. At its greatest extent, the Open Pit will be 228 ha, approximately 2.0 km long on the east to west axis and 1.8 km long on the north to south axis. When fully developed, the anticipated depth of the pit will range between 350 m to 550 m below the surrounding ground surface (masl). The initial production ramp up (Year +1 to Year +5) will be undertaken using 400 t class hydraulic shovels and 190 t payload class haul trucks. As production increases, the load and haul fleet will be expanded with 550 t class hydraulic shovels and 220 t payload class haul trucks. The initial drill and loading fleets are planned to be diesel drive, with expansion of the fleet to include electric drills and shovels after Year +5.

5.3.2 Processing Plant

The processing plant, located north of the Open Pit, will utilize a carbon in leach gold recovery process, with gold doré produced on-site. The plant will operate on a 5,500 kt per annum throughput from Year +1 to Year +5, 12,000 kt per annum throughput from Year +6 to Year +10, and a 20,000 kt per annum throughput from Year +11 to Year +23, the end of operations. The general arrangement for the processing plant at Year +1 is shown in Figure 5.3-2. An ore process flow diagram is presented in Figure 5.3-3.

BW Gold has integrated engineering controls to mitigate fugitive dust emissions from the processing plant, which includes active dust collection, wet grinding, enclosures, and stack emissions (Ausenco 2021). These controls are outlined below.

Active Dust Collection

Active dust collection systems will be installed in the following areas:

- Primary crusher – baghouse collector including blower and ducting with pickups at jaw crusher feeder and vibrating grizzly discharge;
- Secondary and tertiary crusher – baghouse collector including fan and ducting with pickups at screen feed and discharge chutes and cone crusher feeder head;
- Reclaim tunnel – cartridge style collector including fan and ducting with pickups at each reclaim feeder discharge;
- Fire Assay Main Lab – cartridge style dust collector – dust collection system services the electric cupellation and diesel-fired fusion furnace;
- Fire Assay Lab Sample Preparation – cartridge style sample preparation dust collector; and
- Lime Silo – cartridge style dust collector baghouse exhaust will contain lime dust and ambient air.

Wet Grinding

Wet grinding will be utilized for the grinding circuit. This medium is more energy efficient than dry grinding and eliminates dust associated with the ore grinding process.

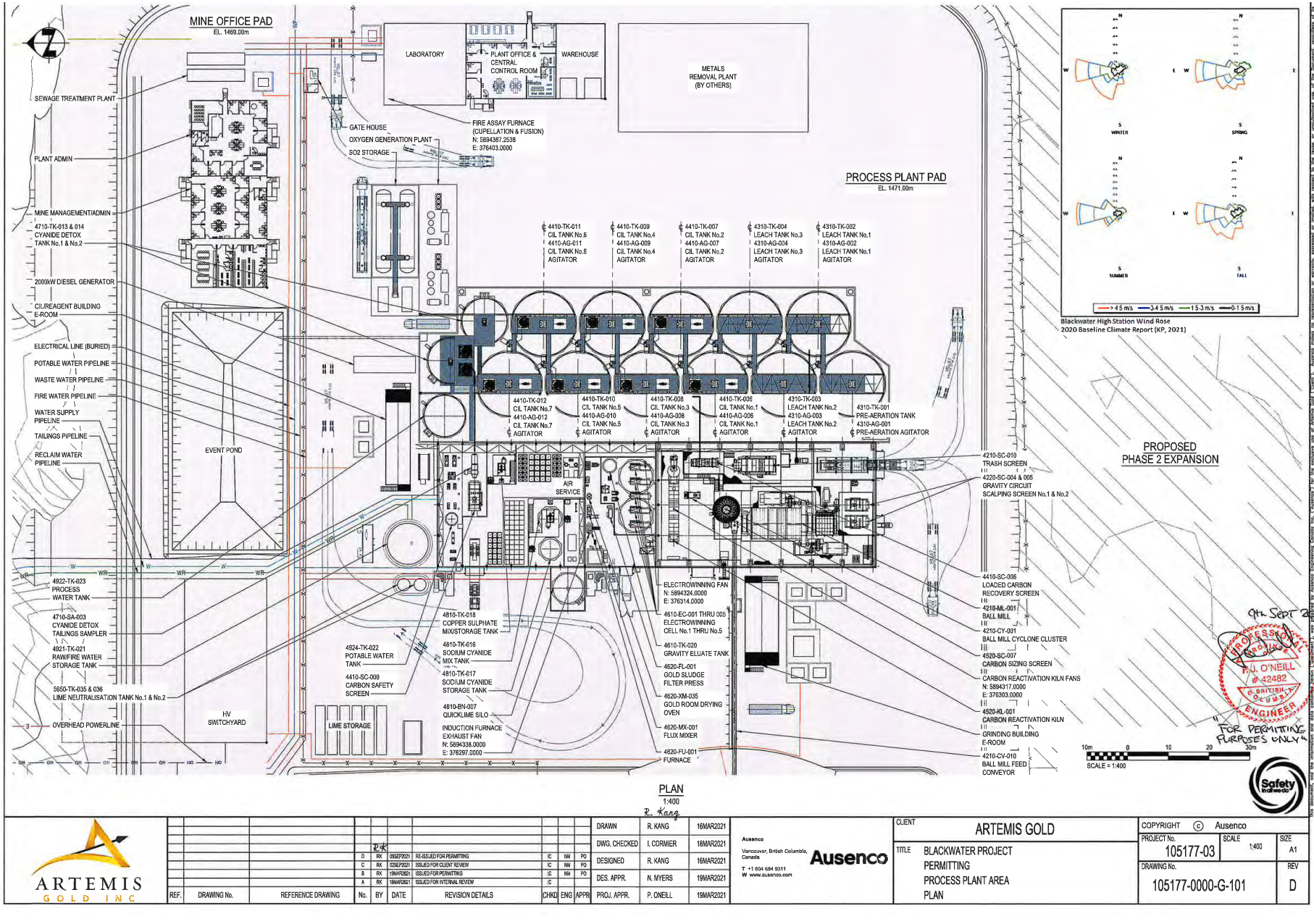


Figure 5.3-2: Blackwater Process Plant Area Site Plan

Source: Ausenco (2021; Appendix 3-F)

Figure 5.3-3: Ore Process Flow Diagram

Source: Ausenco (2021).

Enclosures

Most handing and processing equipment at the Plant Site will be contained in enclosures to limit fugitive dust emissions. These enclosures and associated heating, ventilation and air conditioning (HVAC) considerations include:

- Primary crusher (parts of the building will be enclosed, cladded, insulated and heated);
- Secondary and tertiary crusher (building will be enclosed, cladded, insulated, and heated);
- Reclaim tunnel (will be enclosed, without insulation or heating [HVAC – ventilation only]); and
- Mill building/ wet process plant (will be enclosed, cladded and insulated [HVAC – heated to 10 ºC minimum and ventilated]).

5.3.3 Tailings Storage Facility

The TSF comprises two adjacent sites, TSF Site C and TSF Site D and four embankments (Site C Main Dam, Site D Main Dam, Site C Saddle Dam, and Site C West Main Dam). The TSF is designed to permanently store tailings and potentially acid generating waste rock, provide water for processing, and support mine site water balance management. During operations, tailings will be delivered by gravity via a pipeline from the processing plant to either TSF Site C or TSF Site D.

Tailings beaches will be developed and maintained if and as required at the direction of the EoR throughout the life of mine for each dam. Tailings beaches prevent direct contact of the pond supernatant with dam embankments and limits the infiltration of seepage into the embankment. The particle size distribution of the tailings samples were approximately 44% fine sand, 46% silt, and 10% clay. The tailings are fairly coarse with good packing density and low rheology.

5.3.4 Stockpiles

Upper and Lower Waste Stockpiles

Two stockpiles will store NAG overburden (OVB) and NAG waste rock from stripping and open pit mining. The Upper Waste Stockpile will be located west of the Open Pit and has a planned maximum capacity of 31 Mt. The Lower Waste Stockpile will be located between the TSF and explosives storage road and has a planned maximum capacity of 29 Mt.

Low Grade Ore Stockpile

The Low Grade Ore (LGO) Stockpile will store ore prior to processing. The stockpile will be located northwest of the open pit with a planned maximum capacity of approximately 111 Mt. The LGO will be completely processed by Y +23.

Topsoil Stockpiles

During the mine life, reclamation materials (i.e., topsoil with subsoil, organic soil, woody debris) will be salvaged and stored for use in progressive or final reclamation. The total estimated volume of potentially salvageable soil is 8.46 Mm^3. There will be seven soil stockpiles on the proposed mine site. Final stockpiles will be seeded as surfaces are graded to final repose angles and become available for seeding with non-propagating grass species, native grasses and forbs, and tree and shrub species to reduce erosion and invasive-species establishment and to control fugitive dust dispersal.

5.3.5 Borrow and Aggregate Crushing and Screening Areas

Eight borrow areas will be developed in Year -2 in order to produce aggregate to construct mine infrastructure and include:

- Mine site borrow areas;
- Borrow, aggregate screening, and construction laydown areas;
- TSF C additional borrow area;
- TSF C North borrow area;
- TSF C South borrow area;
- TSF D borrow areas;
- Freshwater Reservoir borrow area; and
- Borrow, aggregate screening and concrete plant areas.

Crushing and screening plants will produce concrete aggregates, structural fills, road general fills, sub base and base coarse fills.

5.3.6 Concrete Batch Plants

Concrete batch plants will be mobilized in Year -2. A high volume plant will operate during construction with additional plants available during peak pouring periods and as a backup to the high volume plant. All dry mix concrete batch plants will be winterized.

5.3.7 Refuse Incinerator

A putrescible refuse incinerator is located on site. The incinerator will be utilized during all Project phases. The incinerator is authorized to burn a maximum of 1.1 tonnes/day of the following:

- Putrescible camp waste;
- Paper;
- Cardboard, and
- Lumber scraps that cannot be recycled.

BW Gold plans to use the incinerator as permitted. Incinerator ash is disposed of in accordance with existing approval for the facility, *Environmental Management Act* Permit #106530. Ash is deposited in an off-site landfill. When operational conditions require that a landfill is brought online, a landfill will be located, permitted and constructed. Any excess waste above and beyond what the permitted incinerator can process will be disposed of in an alternate manner, for example taken off-site for disposal. As the site develops and head count increases, consideration will be given to expanding site incineration capacity if the waste generated exceeds the permitted capacity of the existing incinerator.

6.0 Identification of Potential Air Emission Sources

Fugitive dust is the primary source of air emissions. Potential dust sources include material handling/ re-handling, construction and use of unpaved roads, blasting, compaction, drilling, grading, material (including ore) loading and unloading, and ore processing. Erodible surface areas such as stockpiles and the TSF beach) are also sources of fugitive dust.

Table 6-1 provides an overview of the Project activities anticipated to emit fugitive dust by Project phase. Table 6-2 provides further detail on dust emissions by Project component, further illustrated by Figure 6-1. Table 6-3 identifies emission sources and predicted emissions of total suspended particulate (TSP), particulate matter less than 10 µm (microns) in diameter (PM_{10}), particulate matter less than 2.5 µm in diameter ($PM_{2.5}$), carbon monoxide (CO), nitrogen oxides (NOx); and sulphur dioxide (SO_2).

Non-dust air emission sources include, but may not be limited to, mine fleet exhaust (multiple), backup diesel generators (x6), NOx and SO_2 from blasting and the existing diesel-fired putrescible waste incinerator.

Table 6-1: Activities Resulting in Fugitive Dust by Project Phase

Construction	Operations	Closure	Post-closure
• Land clearing and earthworks for all on-site and off-site Project components • Construction and use of unpaved access and mine site roads • Surface blasting, drilling, and material handling for starter pits • Construction of Project-owned roads • Construction of the transmission line • Construction of the freshwater supply system • Construction of TSF dams, and interim environmental control dam (ECD) • Material handling/re-handling at Lower and Upper Waste stockpiles, LGO and topsoil stockpiles, borrow areas, and laydown areas • Construction of water management structures (e.g., diversion channels) • Aggregate extraction from borrow pits • Borrow and aggregate screening areas • Concrete batch plants • Parking lot and road grading	• Pit slopes • Surface blasting and mining activities during open pit operations • Ore extraction in the open pit • Ore transport to the processing plant • Ore processing • Construction of TSF Main Dam D and Final ECD • Wind erosion from exposed TSF beach and stockpiles • Land clearing and earthworks associated with production ramp ups • Use of unpaved surfaces including the mine site haul roads • Material handling/ re-handling at Lower and Upper Waste stockpiles, LGO and topsoil stockpiles, borrow areas, and laydown areas • Borrow and aggregate screening areas • Parking lot and road grading	• Pit slopes • Earthworks, land forming and soil stockpile rehandling • Use of unpaved mine site roads • Wind erosion from exposed TSF beach • Parking lot and road grading	• Pit slopes above inundation level • Use of unpaved mine site roads • Parking lot and road grading • Final decommissioning and closure of all remaining infrastructure

Table 6-2: Fugitive Dust Emission Sources by Project Component

Component	Location	Potential Source	Dust-generating Material	Generating Conditions	Additional Comments
Open Pit	Figure 6-1	OVB and waste rock removal, blasting, drilling, material handling/re-handling, vehicle traffic	OVB, waste rock, ore, aggregate, waste rock	Any conditions	Pit will become deeper and wetter as it is developed, mitigating fugitive dust
TSF, Site C and Site D Main dams, Site C Saddle and West dams	Figure 6-1	Excavation (drilling and blasting), compaction, material placement and handling, vehicle traffic	Waste rock, tailings	Windy, dry, hot days or extremely cold weather	TSF will expand and begin to inundate upstream dam faces as it is developed, mitigating dust

Component	Location	Potential Source	Dust-generating Material	Generating Conditions	Additional Comments
TSF beach	Figure 6-1	Wind erosion, blasting, drilling, vehicle traffic	OVB, waste rock, aggregate, tailings	Windy, dry, hot days or extremely cold weather	
Concrete batch plants	Figure 6-1	Material handling	Cement, aggregate	Any conditions	Active during Construction phase and intermittent use thereafter; Plants will conform to Code of Conduct for Concrete Batch plants (BC Reg. 329/2007)
Aggregate screening areas	Figure 6-1	Material handling/ re-handling, vehicle traffic	aggregate	Windy, dry, hot days or extremely cold weather	
Borrow areas	Figure 6-1	Material handling/ re-handling, vehicle traffic	OVB, waste rock and aggregate	Windy, dry, hot days or extremely cold weather	
Processing plant (located at Plant Site)	Figures 5.3-2, 5.3-3, 6-1	Conveyor drop, primary crusher building, Secondary and tertiary crusher building, reclaim tunnel, rotary kiln, propane smelting, fire assay furnace	Ore	Windy, dry, hot days or extremely cold weather	Covered conveyors; baghouse collector systems
Upper and Lower Waste stockpiles	Figure 6-1	Wind erosion, material handling, vehicle traffic	OVB and waste rock	Windy, dry, hot days or extremely cold weather	
LGO stockpile	Figure 6-1	Wind erosion, material handling/ re-handling, vehicle traffic	Ore	Windy, dry, hot days or extremely cold weather	Until stockpile is fully processed by Y+23
Topsoil stockpiles	Figure 6-1	Wind erosion, material handling, vehicle traffic	Topsoil	Wind, dry, hot days or extremely cold weather	Until stockpiles are vegetated
Freshwater Reservoir and dam	Figure 6-1	Excavation (drilling and blasting), compaction, material placement and handling, vehicle traffic	Cement, aggregate	Windy, dry, hot days or extremely cold weather	

Component	Location	Potential Source	Dust-generating Material	Generating Conditions	Additional Comments
Interim, and final Environmental Control dams	Figure 6-1	Excavation (drilling and blasting), compaction, material placement and handling, vehicle traffic	Cement, aggregate	Windy, dry, hot days or extremely cold weather	
TSF, mine site haul and service roads	Figure 6-1	Vehicle traffic, grading	Aggregate	Any conditions	
MAR	Figure 6-1	Vehicle traffic, grading	Aggregate	Windy, dry, hot days or extremely cold weather	

Table 6-3: Operations Emission Sources and Predicted Emissions

Emission Source	Maximum Emissions (tonnes/day)					
	TSP	PM_{10}	$PM_{2.5}$	SO_2	NO_X	CO
Material Handling	4.40	1.63	0.34	-	-	-
Unpaved Road (Haul Roads)	3.29	0.72	0.089	0.0015	2.17	0.091
Unpaved Roads (FSR+MAR)	0.57	0.14	0.014	1.1E-04	0.018	0.0056
Dump/Storage Areas	6.02	3.01	0.45	-	-	-
Incinerator	0.041	0.041	0.038	0.0022	0.0054	0.065
Processing Plant	0.0051	0.0022	6.0E-04	-	-	-
Refinery System	1.8E-04	1.8E-04	1.5E-04	3.7E-05	0.048	0.028
Fired Sources	0.049	0.049	0.047	0.026	0.38	0.12
Total Emissions	**14.38**	**5.59**	**0.98**	**0.03**	**2.62**	**0.31**

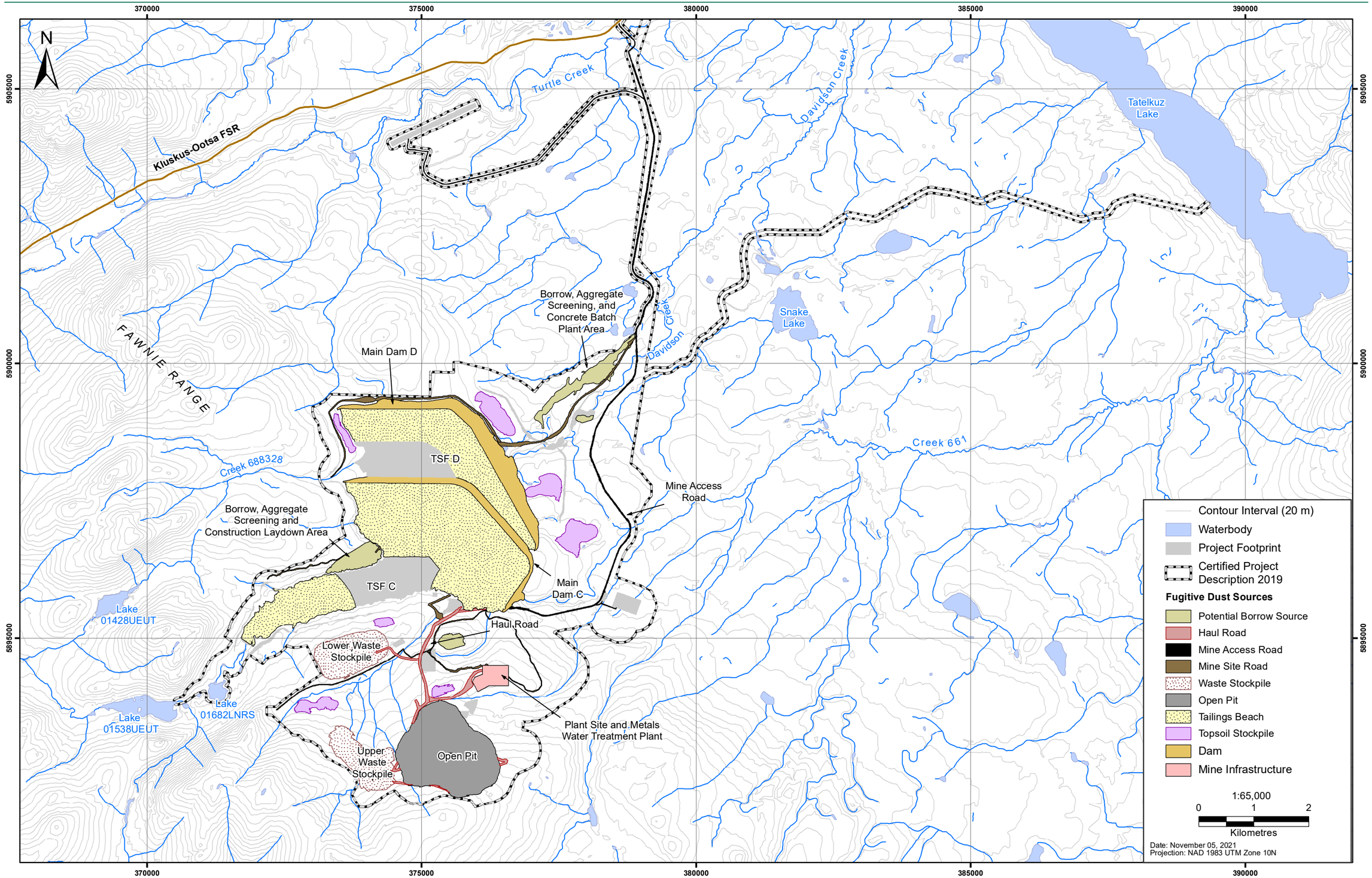


Figure 6-1: Project Components with Potential to Generate Fugitive Dust

7.0 Identification of Potential Effects of Fugitive Dust

7.1 Air Quality Objectives and Parameters of Concern

The *Canadian Environmental Protection Act, 1999* establishes National Ambient Air Quality Objectives (NAAQOs) and Canadian Ambient Air Quality Standards (CAAQS) to protect human health and the environment. BC has established Ambient Air Quality Objectives (AAQOs) pursuant to the Environmental Management Act. Federal and BC air quality objectives are provided in Table 7.1-1 and are non-legally binding limits. As even low levels of air pollution can affect some individuals, air quality objectives should not be viewed as levels that can be 'polluted up to', but levels to stay well below. Additionally, Permit #110650 includes limits on the discharge of contaminants from point sources.

Table 7.1-1: Federal and BC Ambient Air Quality Objectives

Contaminant	Averaging Period	Objectives/Standards (µg/m^3)				
		Federal[a,b,c,d]			British Columbia[e]	
		Maximum Desirable	Maximum Acceptable	Maximum Tolerable	BCAAQO[f]	CAAQS[g]
TSP	24-hour	-	120	400	120	
	Annual	60	70	-	60[h]	
PM_{10}	24-hour	-			50	
$PM_{2.5}$	24-hour	27 to 28[i]			25[j]	28[k]
	Annual	8.8 to 10[l]			8[m]	10[n]
CO	1-hour	15,000	35,000	-	14,300	
	8-hour	6,000	15,000	20,000	5,500	
NO_2	1-hour	79 to 113[o]			188[p]	113[q]
	Annual	23 to 32[r]			60[s]	32
SO_2	1-hour	170 to 183[t]			196[u]	183[v]
	Annual	10 to 13[w]			13[x]	

Sources: [a] CCME 1999, [b] Government of Canada 2013, [c] Government of Canada 2017a, [d] Government of Canada 2017b, and [e] ENV 2020.

Notes:

µg/m^3 = micrograms per cubic metre; mg/dm^2/d = milligrams per square decimetre per day; TSP = total suspended particulate; PM_{10} = Particulate matter less than 10 µm (microns) in diameter; $PM_{2.5}$ = Particulate matter less than 2.5 µm (microns) in diameter; CO = carbon monoxide; NO_2 = nitrogen dioxide; SO_2 = sulphur dioxide

"-" signifies that no air quality objective is available.

[f] BC AAQO.

[g] CAAQS.

[h] Based on geometric mean.

[i] CAAQS is 28 µg/m^3 in 2015 and 27 µg/m^3 in 2020 (CCME 1999); compliance based on annual 98th percentile value, averaged over three consecutive years.

(j) Achievement based on annual 98th percentile of daily average, over one year.

(k) Achievement based on annual 98th percentile of daily average, averaged over three consecutive years.

(l) CAAQS is 10 µg/m³ in 2015 and 8.8 µg/m³ in 2020 (CCME 1999); compliance based on the average over three consecutive years.

(m) Achievement based on annual average, over one year. There is a planning goal of 6 µg/m³.

(n) Achievement based on annual average, averaged over three consecutive years.

(o) CAAQS is 113 µg/m³ from December 2017 through December 2024 and 79 µg/m³ as of January 2025 (Government of Canada 2017a); compliance based on a three-year average of the annual 98th percentile of the daily 1-hour maximum concentration (D1HM).

(p) Interim provincial AAQO, currently under review. Achievement based on annual 98th percentile of D1HM, over 1 year.

(q) Achievement based on annual 98th percentile of D1HM, averaged over three consecutive years.

(r) CAAQS is 32 µg/m³ from December 2017 through December 2024 and 23 µg/m³ as of January 2025 (Government of Canada 2017a); compliance based on a one-calendar-year average of all the 1-hour average concentrations.

(s) Interim provincial AQO, currently under review.

(t) CAAQS is 183 µg/m³ from October 2017 through December 2024 and 170 µg/m³ as of January 2025 (Government of Canada 2017b); compliance based on a three-year average of the annual 99th percentile of the daily-maximum 1-hour average concentrations.

(u) Achievement based on annual 97th percentile of D1HM averaged over 2015-2017, annual 97.5th percentile of D1HM averaged over 2016-2018 and annual 98th percentile of D1HM averaged over 2017-2019, with one allowable excursion above 75 ppb to a maximum of 85 ppb over a three-year period prior to 2020. Superseded by CAAQS level and metric January 1, 2020.

(v) Achievement based on annual 99th percentile of D1HM, averaged over three consecutive years, effective January 1, 2020. Used to inform new air management decisions beginning January 1, 2017 and all air management decisions beginning January 1, 2020.

(w) CAQQS is 13 µg/m³ from October 2017 through December 2024 and 10 µg/m³ as of January 2025 (Government of Canada 2017b); compliance based on a one-calendar-year average of all the 1-hour average concentrations.

(x) Used to inform new air management decisions beginning January 1, 2017 and all air management decisions beginning January 1, 2020.

Particulate matter ($PM_{2.5}$ and PM_{10}) are the main parameters of concern for mining operations as they relate to human health. For the Project's human health risk assessment (HHRA), emissions of nitrogen oxides, SO_2, CO and PM ($PM_{2.5}$ and PM_{10}) were modelled to estimate concentrations at each human receptor location (including full-time residents, temporary land users and off-duty workers) for comparison with BC objectives (Entia 2021). The HHRA considered estimated metal concentrations in dust that is predicted to be deposited at soils and vegetation sampling locations.

Figure 7.1-1 identifies sensitive receptors in relation to the Project. The closest on-site receptor is the operations camp which will house off-duty workers (Figure 7.1-1). The closest off-site receptor is Tatelkus Lake Indian Reserve 28 (Tatelkus Lake 28), located approximately 5.8 km northeast of the mine site (Figure 5.1-1). Onsite and offsite wildlife and vegetation receptors are assessed with human health and environment impacts when applying BC objectives when dust is deposited on soils and vegetation.

To minimize air emission impacts from the Project to human health and the environment mitigations and monitoring will be implemented as described in Section 8. Visual monitoring of dust will be completed onsite at active earthworks, haul roads, and stockpiles.

Air dispersion modelling was conducted to predict concentrations of parameters of concern.

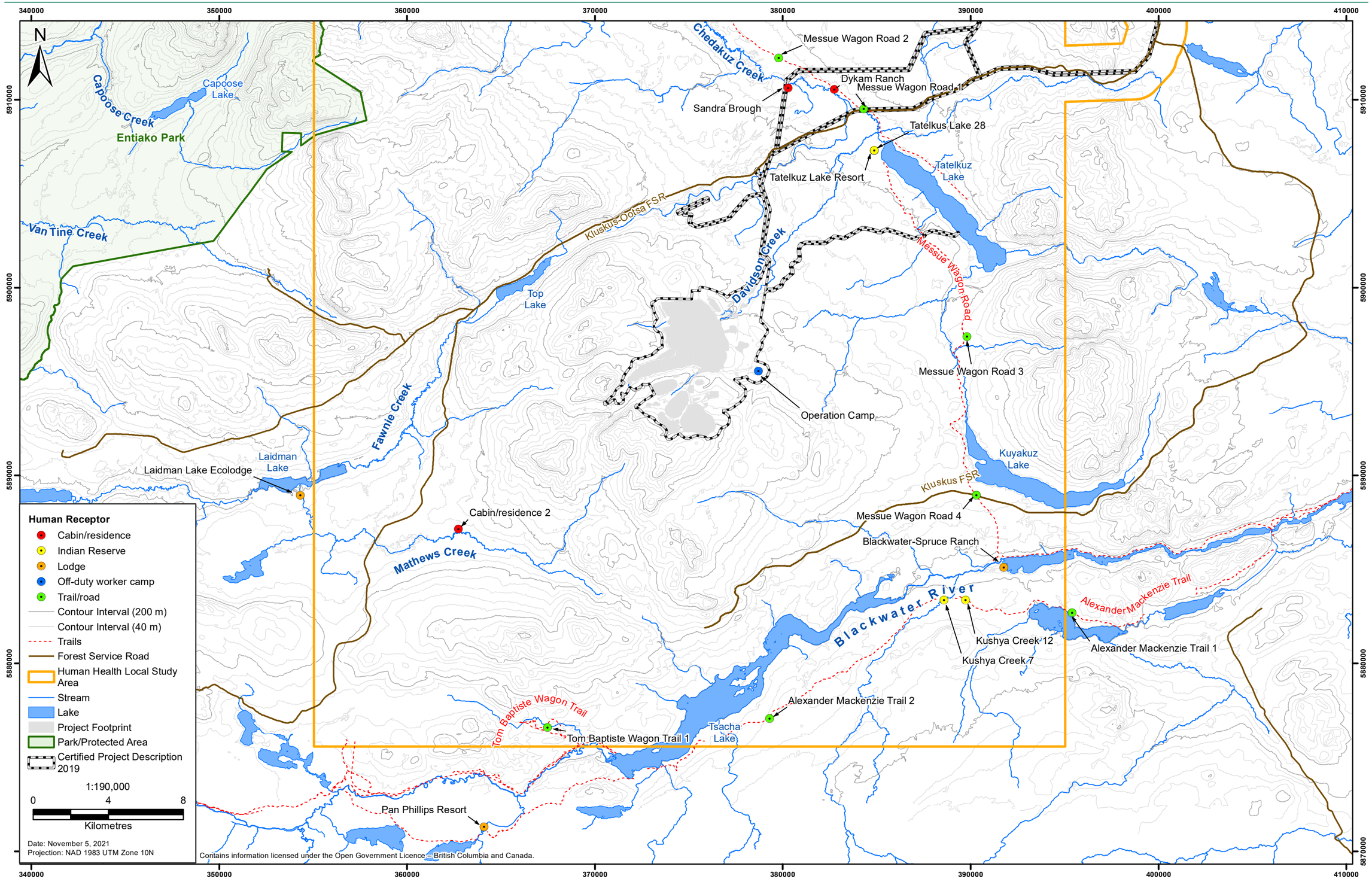


Figure 7.1-1: Air Quality Human Receptors

7.2 Air Dispersion Modelling Results and Effects

Modelling results represent a Level 3 assessment using the CALPUFF modelling system. The CALPUFF modeling system was used to prepare meteorological data, model concentrations and deposition, and to post-process results for specific pollutants and applicable averaging periods. CALPUFF was run using 2011 meteorology data. The results presented below represent predicted concentrations during the Phase 1 of the Project.

Table 7.2-1 summarizes the results of air dispersion modelling for all off-site human receptor locations, and Table 7.2-2 summarizes the results of air dispersion modelling for the operations camp. The results at all off-site receptor locations indicate there are no exceedances of applicable ambient air quality objectives, with all results being less than 80% of the objectives and hence are not considered parameters of potential concern (POPC).

Table 7.2-1: Baseline Case and Project Case Concentrations for Criteria Air Contaminants for All Off-site Receptor Locations

Parameter	Averaging Period	Concentration (µg/m^3)			AAQO (µg/m^3)	POPC?	POC?
		Baseline Case	Project Only	Project Case			
$PM_{2.5}$	24-hour	4	0.4	4.4	25	No	No
	Annual		0.1	4.1	8	No	No
PM_{10}	24-hour	9	2	11	50	No	No
NO_2	1-hour	8	5	13	79	No	No
	Annual		0.3	8.3	23	No	No
SO_2	1-hour	2	1.0	3.0	170	No	No
	Annual		0.03	2.0	10	No	No
CO	1-hour	120	30	150	14,300	No	No
	8-hour		12	132	5,500	No	No

Table 7.2-2: Baseline Case and Project Case Concentrations for Criteria Air Contaminants at the Operations Camp

Parameter	Averaging Period	Concentration (µg/m^3)			AAQO (µg/m^3)	POPC?	POC?
		Baseline Case	Project Only	Project Case			
$PM_{2.5}$	24-hour	4	3.6	7.6	25	No	No
	Annual		1.0	5.0	8	No	No
PM_{10}	24-hour	9	17.9	26.9	50	No	No
NO_2	1-hour	8	29.1	37.1	79	No	No
	Annual		1.8	9.8	23	No	No

Parameter	Averaging Period	Concentration (µg/m^3)			AAQO (µg/m^3)	POPC?	POC?
		Baseline Case	Project Only	Project Case			
SO_2	1-hour	2	6.6	8.6	170	No	No
	Annual		0.2	2.2	10	No	No
CO	1-hour	120	197.5	317.5	14,300	No	No
	8-hour		85.0	205.0	5,500	No	No

Notes:

$PM_{2.5}$ = particulate matter less than 2.5 µm in diameter; PM_{10} = particulate matter less than 10 µm in diameter

NO_2 = nitrogen dioxide; SO_2 = sulfur dioxide; CO = carbon monoxide

AAQO = Ambient Air Quality Objective, based on the most conservative BC AAQO or CAAQS (including standards anticipated for 2025)

POPC = Parameter of Potential Concern, identified if the parameter concentration is higher than 80% of the AAQO.

POC = Parameter of Concern, identified if the parameter concentration is higher than the AAQO.

Baseline Case concentrations are from Table 2.2-4 in Chapter 2 of the Application.

Project Case concentrations include both background and Project contributions.

The HHRA (Entia 2021) found that predicted 24-hour ground-level $PM_{2.5}$ and PM_{10} concentrations do not result in any acute short-term exposure hazard quotient (HQ) values above 1.0 for any of the offsite sensitive receptor locations. The highest HQ values for 24-hour $PM_{2.5}$ and PM_{10} are 0.176 and 0.225 respectively, at Tatelkuz Lake Resort and Tatelkus Lake 28. The contributions of Project emissions to the total HQ for 24-hour $PM_{2.5}$ and PM_{10} are 0.016 and 0.045 respectively, based on the effects assessment. At the operations camp, the highest HQ values for 24-hour $PM_{2.5}$ and PM_{10} are 0.304 and 0.539, respectively. The contributions of Project emissions to the total operations camp HQ for 24-hour $PM_{2.5}$ and PM_{10} are 0.144 and 0.359 respectively, based on the effects assessment. Adverse health effects for human receptors are unlikely to occur following acute short-term exposures to $PM_{2.5}$ and PM_{10}.

Predicted annual ground-level $PM_{2.5}$ concentrations do not result in any chronic HQ values above 1.0 for any of the receptor locations. The highest HQ value for annual chronic exposure to $PM_{2.5}$ at any offsite sensitive receptor is 0.512 at Tatelkuz Lake Resort and Tatelkus Lake 28. The contribution of Project emissions to the total HQ for annual chronic exposure is 0.012 based on the effects assessment. At the operations camp, the HQ value for annual chronic exposure to $PM_{2.5}$ is 0.629 with a contribution from Project emissions of 0.129. These values show that the contribution of Project emissions to the total HQ is small – maximum of 2% for offsite receptors, 21% at the operations camp, Since the total HQ values for the baseline condition and effects assessment remain less than 1.0, adverse health effects for human receptors are unlikely to occur following chronic exposure to $PM_{2.5}$.

Particulate emissions can have effects on aquatic resources and fish, vegetation, wildlife, and human health. Potential effects on the aquatic environment from dust include increase in turbidity levels which could affect habitat quality and organism health. Deposition of dust can lead to contamination of soils with metals, which may adversely affect vegetation abundance, composition, nutritional value, and toxicity. Fugitive dust can cause physical injuries to vegetation, including the alteration of photosynthetic receptors, respiration, and transpiration. Potential effects to wildlife and people include health effects from ingestion of plants and/or animals that have been exposed to chemicals contained with the dust.
The amount of dust generated by haul trucks and mining equipment depend on a variety of factors including road material, waste rock moisture content, chemical composition, and the amounts of particulates ready to be emitted, known as silt content. The distance the particles will travel depends on

particle size distribution (bigger particles are deposited to the ground closer to the source) and meteorological conditions. With higher winds, the higher mass concentration of larger size particles increases faster than smaller sized particles. (Haller et al. 1999).

Naturally occurring small particulates produced by forest fires can elevate $PM_{2.5}$ and PM_{10} levels above guidelines.

8.0 Implementation

The following sections present the mitigation measures, training, and monitoring that will be implemented to manage fugitive dust and confirm mitigation measures are working.

8.1 Training and Awareness

Employees and contractors will receive awareness-level training in fugitive dust management and air quality on their arrival on site through an environmental on-boarding training session and prior to the start of work as part of the Site Orientation. The purpose of this training is to provide all site personnel with a basic level of environmental awareness and an understanding of their obligations regarding compliance with regulatory requirements, commitments, and best practices. A refresher training will be provided to employees and contractors on an annual basis. Refresher training may take the form of periodic re-training through tailgate and safety meetings.

Site supervisors will be responsible for understanding and implementing the AQDMP and operational SOPs with respect to their individual work areas. The EM will ensure additional training and advice is provided as needed. Targeted training related to dust management will be provided to individuals and/or groups of workers assuming a specific authority or responsibility related to air quality. This training will be delivered by means of classroom instruction, toolbox/tailgate meetings or other means as appropriate.

BW Gold will regularly review and update the training and awareness plan based on changes in training needs and regulatory requirements.

8.2 Mitigation Measures

Site-specific mitigation measures, including best management practices, will be applied to all dust sources as listed in Table 8.2-1. If measures are ineffective, contingency measures are also proposed, where relevant. Visual monitoring of dust onsite will be carried out in source areas of dust generation, where dust has potential of leaving the site.

Table 8.2-1: Air Quality Mitigation Measures, Best Management Practices, and Contingency

Emission Source	Best Management Practices and Mitigation Measures	Contingency
Open Pit	• Employees involved in material handling or management will receive instruction by a qualified person on the importance of minimizing material drop height (from excavator to truck, conveyor to stockpile, etc.) to reduce fugitive dust, noise, and vibration. • Utilize available fleet of water trucks, weather depending. • Use weather forecasts to inform blasting plan (e.g., wind forecast, lightning and thunder warnings).	n/a
Production drilling	• Use wet drilling during very dry conditions (less than 0.25 mm/day of precipitation in the previous week).	n/a
Production blasting	• Immediately prior to blasting, the “Drill and Blast Engineer / Blast Coordinator” will check weather conditions to determine if the blast is likely to cause any dust or fume impacts on the surrounding environment.	n/a

Emission Source	Best Management Practices and Mitigation Measures	Contingency
	• Blasting may be postponed until wind direction is not forecast to disperse emissions towards employees or local sensitive receptors when dust or fume impacts on employees and environment cannot be avoided. The Mine Drill and Blast Superintendent and Mine manager will ultimately decide when to postpone blasting (the H&S Manager and The Project Occupational Health and Safety Program can inform this decision).	
Concrete batch plants	• When unloading material, piles should form low piles (target height of approximately 10 m) that extend horizontally, where practical. • Employees involved in material handling or management will receive instruction by a qualified person on the importance of minimizing material drop height (from excavator to truck, conveyor to stockpile, etc.) to reduce fugitive dust, noise, and vibration.	n/a
Aggregate crushing and screening areas	• Equip the crusher and/or screener circuits with onboard water dosing during times of the year above freezing temperatures or other dust suppression measures (e.g., reagents) systems. • Apply water when temperatures are above freezing and there are very dry conditions (less than 0.25 mm/day of precipitation in the previous week). • Stockpiles should form low piles (target height of approximately 10 m) that extend horizontally as determined by the Construction Manager, where practical. • Use screener and crusher covers. • Check cover for tears, holes and cracks on a monthly basis. Repair as soon as possible.	n/a
TSF, Site C and Site D Main dams, Site C Saddle and West dams	• Advance planning of weekly workload activities. • Apply water in non-freezing, very dry conditions (less than 0.25 mm/day of precipitation in the previous week).	• Maintain higher water levels • Application of calcium chloride, magnesium chloride or other approved dust suppressants during freezing conditions[1]
Freshwater Reservoir and dam	• Advance planning of weekly workload activities. • Apply water in non-freezing, very dry conditions (less than 0.25 mm/day of precipitation in the previous week).	• Application of calcium chloride or magnesium chloride during freezing conditions[1]
Borrow areas	• Apply water when temperatures are above freezing and there are very dry conditions (less than 0.25 mm/day of precipitation in the previous week). • Employees involved in material handling or management will receive instruction by a qualified person on the importance of minimizing material drop height (from excavator to truck, conveyor to stockpile, etc.) to reduce fugitive dust, noise, and vibration. • Develop new borrow areas only when and as required (to be determined by the Mine Manager).	n/a

Emission Source	Best Management Practices and Mitigation Measures	Contingency
	• Once suitable materials have been salvaged, place topsoil on disturbed areas and seed once they are sloped to final grade and at an appropriate time of year for seeding using a native seed mix to re-establish vegetative cover as soon as reasonably possible. • When unloading material, piles should form low piles (target height of approximately 10 m) that extend horizontally. • Minimize drop height from loaders and excavators (shovels) to the truck.	
Processing Plant	• Apply water when temperatures are above freezing and there are very dry conditions (less than 0.25 mm/day of precipitation in the previous week). • Use screener and crusher covers. • Employees involved in material handling or management will receive instruction by a qualified person on the importance of minimizing material drop height (from excavator to truck, conveyor to stockpile, etc.) to reduce fugitive dust, noise, and vibration. • Baghouse, control emissions from fully enclosed conveyor. • Enclose conveyors. • Check cover for tears, holes and cracks on approved inspection and maintenance schedule. Repair or replace as soon as possible.	n/a
Low Grade Ore Stockpile	• When unloading material, stockpile lifts should form low piles (target height of approximately 10 m) that extends horizontally and conform to the stockpile design report (MMTS 2021).	n/a
Topsoil stockpiles	• When unloading material, the piles should form low piles (target height of approximately 10 m) that extend horizontally (MMTS 2021). • Seed stockpiles once they are sloped to final grade and at an appropriate time of year for seeding to reduce erosion and establishment of invasive species.	n/a
MAR	• Speed limits will be established based on road design class, with the maximum speed limit of 50 km/h on all Project roads. • Reduce speed limits on the mine access road if weather conditions cause fugitive dust emissions and dust cannot be controlled by watering. • Speed limits are clearly marked through signage and enforced by site security Personnel caught speeding may face disciplinary measures, and if violators are encountered they will be provided with constructive instruction on the importance of adhering to speed limits to limit dust generation. • Manage dust emissions from roadways in accordance with the Fugitive Dust Management SOP[2]. • Water roads in accordance with Section 5.1.1 (Watering) of the Fugitive Dust Management SOP. • Apply dust suppressant reagents after spring melt (e.g., calcium chloride, magnesium chloride or other equivalent) as approved by the Mine Manager. • Grader maintenance with road crush as required. • Regular compaction. • Use coarse aggregate on roads with low silt content to reduce silt loading on roads.	n/a

Emission Source	Best Management Practices and Mitigation Measures	Contingency
TSF and mine haulage and service roads	• Speed limits will be established based on road design class, with the maximum speed limit of 50 km/h on all Project roads. • Reduce speed limits on Project-owned roads if weather conditions cause fugitive dust emissions and dust cannot be controlled by watering. • Speed limits are clearly marked through signage and enforced by site security Personnel caught speeding may face disciplinary measures, and if violators are encountered they will be provided with constructive instruction on the importance of adhering to speed limits to limit dust generation. • Manage dust emissions from roadways in accordance with the Fugitive Dust Management SOP[2]. • Visual inspection for dust emissions from roadways and active stockpiles – mine and Infrastructure supervisors, or designate, as well as the mine dispatch office who have a number of real-time stationary but rotating cameras with multiple angles of the open pit and haul roads will monitor for visible emissions from the trucks equipment, and active stockpiles on the site during moderate weather conditions. A hot, dry day is defined as a day with less than 0.25 mm of rainfall for the preceding 24 hours and a temperature greater than 20 ºC. • Utilize available fleet of water trucks, weather depending (non-freezing conditions). • Apply dust suppressant reagents after spring melt (e.g., calcium chloride, magnesium chloride or other equivalent) as approved by the Mine Manager. • Use coarse aggregate on roads with low silt content to reduce silt loading on roads. • Grader maintenance with road crush as required. • Regular compaction.	• Trial installation of a fog/sprinkler system that releases small droplets of water on roadways to supress airborne dust and not cause water seepage on high traffic haul roads (e.g., primary crusher ramp, stockpile access roads).
Primary and secondary crusher circuits, conveyors and stockpile drop points	• Install spray bar sprinklers at material transfer points to limit dust emissions. • During periods of air temperatures below 0 ºC, reagents can be used to limit the formation of frost balls.	n/a
Loads in transit in open beds.	• Install removable tarps to cover truck loads of fine material if possible. • Use tackifiers, if necessary, to limit fugitive dust from loads of fine material.	n/a
Vehicles	• Maintain equipment in good working condition according to manufacturer's recommendations. • Restrict speeds and reducing idling (no-idling policy will be implemented, except for situations such as extenuating circumstances during the winter where cold starts and stopping could wear on mining equipment or the vehicle is being used as refuge for lunch or breaks on hot summer days). • Use Tier IV engines for mine fleet.	n/a

Notes:

n/a – not applicable.

[1] BW Gold will follow guidance from the BC best practice manual on fugitive dust management, (https://www2.gov.bc.ca/assets/gov/environment/waste-management/industrial-waste/industrial-waste/mining-smelt-

energy/guidance-documents/dust_management_plan_guidance.pdf), which refers to the best management practice manual from the NWT: (https://www.enr.gov.nt.ca/sites/enr/files/guidelines/dustsupression.pdf).

The application rate of dust suppressant will be carefully monitored to provide adequate coverage without pooling or runoff of products. The amount of dust suppressant applied will not exceed the minimum amount required to effectively suppress dust. Dust suppressant will be bladed or incorporated into the road immediately upon application, to limit the potential of product migrating off the roadway. There will be no evidence of excess product on the roadway. The dust suppressant will not migrate or run off the traveled portion of the roadway.

[2] BW Gold will maintain the most current version of the Fugitive Dust Management Plan SOP at the mine site.

8.3 Monitoring

The air quality monitoring program will be initiated prior to the start of construction and remain in place during all phases of the Project. Figure 8.3-1 illustrates the existing and planned monitoring sites, with further details provided in the following sections.

8.3.1 Meteorological Stations

There are two existing, automated meteorological stations (Figure 8.3-1). Table 8.3-1 provides information on the locations, parameters measured, and the available period of data. Prevailing winds have historically been observed to come from the west (see Section 5.2), which can cause fugitive dust events.

The parameters identified in Table 8.3-1 will be monitored over all phases of the Project. Data, continuously collected by the units, will be downloaded following procedures in the Climate Station Operational and Quality Assurance Plan and reviewed by BW Gold employees overseen by the Environmental Manager at a minimum of a monthly basis. Data will be reviewed according to guidance in Water and Air Baseline Guidance Document for Mine Proponents and Operators (BC MOE 2016c).

The meteorological stations will follow the Station Operational and Quality Assurance Plan as required by air discharge permit #110650.

8.3.2 Dustfall Monitoring

According to ENV 2020, dustfall monitoring and the dustfall Pollution Control Objectives have outdated methodology and criteria and are no longer recommended by BC ENV. Instead, it is recommended with the objective to protect human health, monitoring particulates are more appropriate. To protect soil, water and vegetation, sampling specific media such as metal concentrations from particulate matter from air or metals in water from the surface water management and metal concentration sampling from vegetation in vegetation management is more appropriate. Therefore, air quality and fugitive dust monitoring will include both particulate sampling and analysis of particulate matter metal concentrations as detailed in the Country Foods Monitoring Program. In addition. visual monitoring of dust will be undertaken.

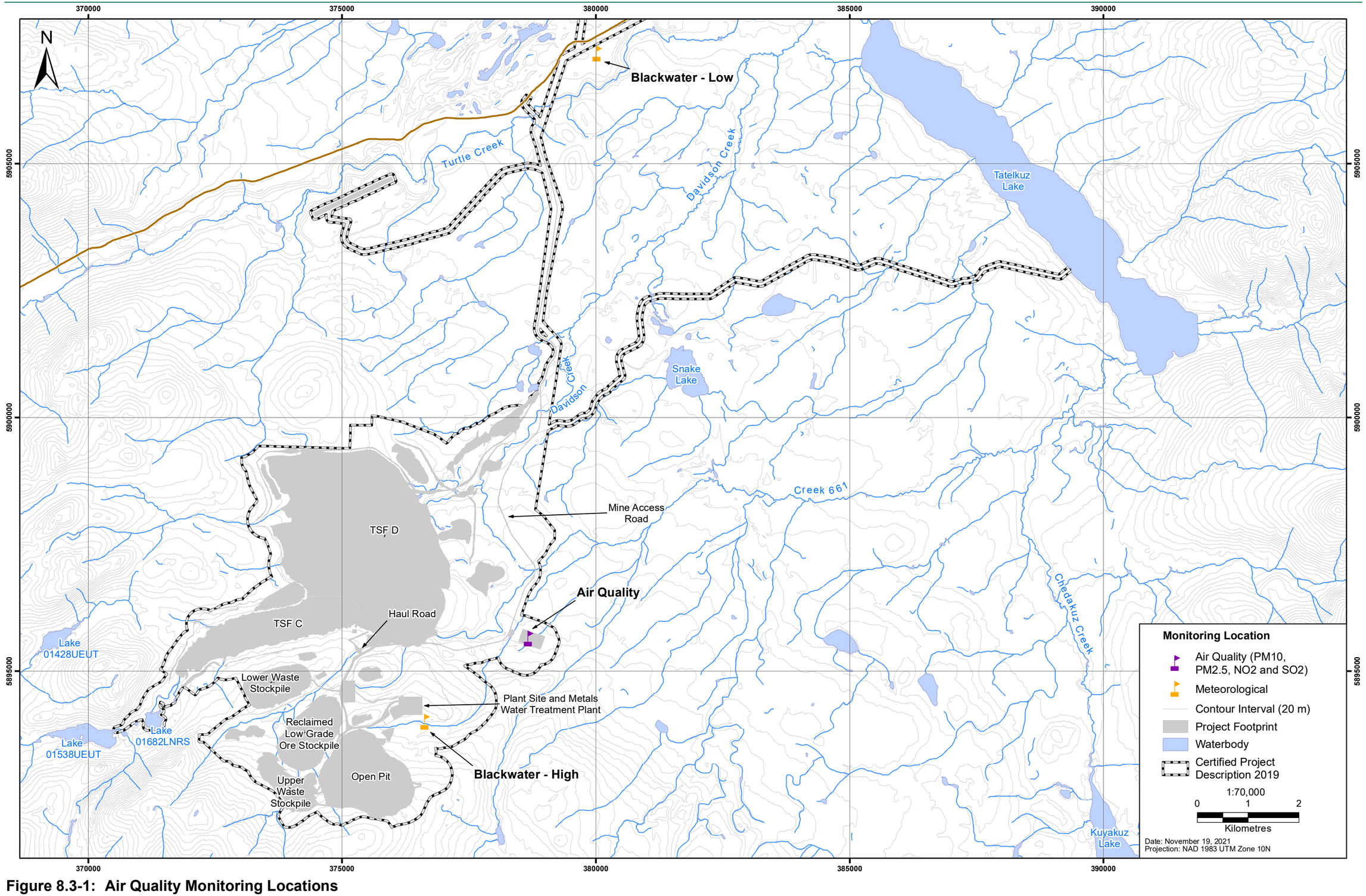


Figure 8.3-1: Air Quality Monitoring Locations

Table 8.3-1: Blackwater Project Meteorological Stations

Station Name (EMS No.)	Station Height	Latitude (deg N)	Longitude (deg W)	Elevation (masl)	Meteorological Parameters Monitored	Data Period Available
Low (E331132)	10 m	53.29979	124.80025	1,050	Air temperature, relative humidity, precipitation, wind speed and direction, barometric pressure, snow depth, net radiation, solar radiation	August 2011 - present
High (E331133)	10 m	53.18113	124.84620	1,470	Air temperature, relative humidity, precipitation, wind speed and direction, barometric pressure, snow depth, net radiation, solar radiation	July 2012 - present

Mine personnel will be trained to be observant for dust related concerns which may arise. These observations, together with meteorological conditions and mitigation efforts taken to deal with an issue, will be recorded and included in annual reports. Dust visual monitoring will focus on areas where there are active surface earthworks, haul roads and overburden, and soil stockpiles.

Visual monitoring will occur at all locations where fugitive dust generation is occurring.

The visual dust monitoring program is intended to contribute to:

- visual identification and recording of fugitive dust events;
- assessment of the effectiveness of mitigation and management measures;
- identification of effects requiring further mitigation efforts; and
- compliance with permit, approvals, and regulatory requirements.

The visual monitoring program will consist of visual observations and documentation of fugitive dust by mine personnel. During periods of wind greater than 5 m/s and when the ground is not covered under snow, Departmental Managers responsible for the areas listed will perform visual monitoring for dust at the following locations:

- locations of active surface earthworks;
- active haul roads; and
- overburden and soil stockpiles.

In addition to these regular inspections mine personnel will be directed to inform Departmental Managers if persistent dust plumes are visible.

Inspections will not be recorded under level “none” described in the Trigger Action Response table (see Table 9.1-1). For Level “Medium” or “High” Alert events in the Trigger Action Response Table, after inspections are complete, a log of the findings will be filled out by the Departmental Manager referenced above. The log will contain information on the location where dust plumes were visible, their approximate size and temporal persistence, activities occurring that may have caused the dust plume, meteorological conditions at the time and any actions taken.

Monitoring will be conducted by competent personnel as designated by the Environment Manager. Data will be reported in compliance with Permit #110650 requirements and are kept and made available to others for review upon request.

8.3.3 Particulate Matter Monitoring

A Thermo Scientific Partisol-FRM Model 2025i-D PM sampler will be installed on the mine site at the exploration camp before the start of major works construction and moved to the operations camp at the start of operations. The camp is the nearest sensitive receptor to mine operations. The station will measure PM < 10 microns (PM_{10}) and PM < 2.5 microns ($PM_{2.5}$) mass concentrations on a 47 mm filter contained in a single-action filter change mechanism.

Samples will be collected over a 24-hour period at a target flow rate of 1 m^3/h. Sample volumes will be recorded and divided into the mass concentration to yield a 24-hour average concentration in units of µg/m^3. The Partisol sampler is suitable for a wide variety of climate conditions and meets the United States Environmental Protection Agency guidelines for manual air samplers.

Fine particulate sampling will occur every third day for $PM_{2.5}$ and PM_{10}, between May and October. During November to April, sampling occur for $PM_{2.5}$ and PM_{10} on a six (6) day basis.

The location of Partisol monitoring is expected to change in 2024 with the development of a permanent operations camp.

8.3.4 Nitrogen Dioxide and Sulfur Dioxide Monitoring

Nitrogen dioxide (NO_2) and SO_2 will be sampled using a passive air sampling system (PASS) whereby gas pollutants are monitored by passive diffusion through a diffusive surface onto an adsorbent membrane or filter. PASS monitors will be installed at the exploration camp prior to the start of major works construction and at the operations camp at the start of operations.

Monitors will be under a protective rain shelter, attached to a supporting pole. Site personnel will collect and replace the PASS units approximately every 15 days and submit the units to an accredited laboratory for analysis.

PASS laboratory results will be reviewed for sample integrity issues and erroneous data. Field notes, chains of custody, comments from the laboratory, and professional judgement will also be considered during the review process. Invalid data will be omitted from final analyzed datasets. Because PASS sampling is passive, hourly NO_2 and SO_2 concentrations cannot be sampled using this method and therefore will not be compared against the hourly CAAQS.

The location of PASS monitoring is expected to change in 2024 with the development of a permanent operations camp.

8.3.5 Carbon Monoxide

Based on the air dispersion modelling results, predicted CO levels are below BC air quality objectives at the human receptor locations (i.e., less than 5% of the objective). The maximum 1-h CO concentration at any human receptor is 317 ug/m^3 while the objective is 14,300 ug/m^3. The maximum 8-h CO concentration is 205 ug/m^3 while the objective is 5,500 ug/m^3.

CO monitoring is normally not recommended for these low levels; however, CO monitoring is a requirement of the DS Condition #6.12. CO will be sampled using an appropriate sampling methodology.

8.3.6 Point Source Discharge Monitoring

The following point source monitoring will be undertaken as per Table 8.3-2, and the results thereof submitted to ENV as part of annual reporting requirements under the air emissions permit. The sampling and analyses must be conducted once in the first six months of operation, and then once every five years, under normal operating conditions. A minimum of five days prior to each event, the EM will notify ENV that sampling is scheduled.

Table 8.3-2: Blackwater Project Point Sources

Source	Parameter	EMS No.
Primary Crusher	Total Particulate Matter	E328676
Secondary Crusher	Total Particulate Matter	E328677
Tertiary Crusher	Total Particulate Matter	E328679
Reclaim Tunnel	Total Particulate Matter	E328680
Fire Assay Lab	Total Particulate Matter	E328687
Fire Assay Sample Prep Area	Total Particulate Matter	E328686
Cyanide Prep Area	Total Particulate Matter	E328683
Copper Sulphate Mix Tank	Total Particulate Matter	E328684
Incinerator	Total Particulate Matter	E328685

The baghouses and dust suppression systems will be operated and maintained in accordance with the manufacturer's specifications.

The operating pressure drop for the baghouses will be maintained within the design conditions specified by the manufacturer's performance warranty. The baghouses will be equipped with a gauge or meter, which indicates the pressure drop across the control device. If the manufacturer's specifications are unavailable then the pressure drop will not be less than 1.0 inches of water column or more than 10.0 inches of water column.

BW Gold will comply with the manufacturers recommended schedule for inspecting and maintaining control equipment. If the inspection frequency is not specified by the manufacturer, recommended inspection and maintenance activities will be conducted at least once per quarter.

8.3.7 Quality Assurance / Quality Control

The quality assurance/quality control (QA/QC) program for air quality will include:

- Use of standard field data sheets and SOPs (e.g., for calibration of the Partisol and PASS sampling equipment) for field sampling and data collection;
- Review of data once transferred to a database to minimize the potential for transcription errors;
- Appropriate training for field personnel responsible for collecting samples;
- Use of chain of custody (COC) forms and CALA-accredited laboratory for analysis of samples; and
- Appropriate laboratory-based QA/QC programs, consistent with the requirements of the British Columbia Environmental Laboratory Manual (BC ENV 2020a).

8.4 Community Feedback Mechanism

Pursuant to DS Condition 6.3, BW Gold will establish a feedback mechanism to manage input and complaints related to exposure to dust from the Project during construction, operation and decommissioning. Complaints may arise from Project-related use of the FSRs between Vanderhoof and the Project site. Monitoring activities will include a review of any complaints received from the public related to fugitive dust and air quality and an initial response within 48 hours. Complaints will be carefully investigated, tracked and logged, contributing factors that may have resulted in the complaint, and any actions that were undertaken and follow-up to address the complaint. Complaints may require a more in-depth root cause analysis and result in modification of the Plan.

In the event that COPC limits and corresponding concentration triggers identified in Section 9 (Adaptive Management Trigger Action Response) of the AQDMP are exceeded, BW Gold will notify the EAO, ENV, EMLI, Northern Health and Aboriginal Groups and Independent Environmental Monitor. As required by EAC Condition 20, the notification will include both a technical report and a plain language summary of the technical report. The report will be public by posting it to the Blackwater Project website.

9.0 Adaptive Management and Follow-up Program

The AQDMP is a living document that will evolve over time in response to the results of the monitoring program, changing conditions or development at the Project, updates to scientific methods, and through consultation and discussions with Indigenous Nations, regulators, or other stakeholders. This process of continuous improvement with changing conditions is referred to as adaptive management.

Condition 6.12 of the DS requires BW Gold to develop an air quality follow-up program (AQFP) as follows:

> *The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental pertains to adverse environmental effects of the Designated Project on the health of Indigenous Peoples as a result of changes to air quality and determine the effectiveness of mitigation measures. As part of the implementation of the follow-up program, the Proponent shall monitor nitrogen dioxide (NO_2), sulfur dioxide (SO_2), fine particulate matter ($PM_{2.5}$), particulate matter (PM_{10}), dust, and carbon monoxide (CO) in air. The Proponent shall implement the follow-up program during all phases of the Designated Project and shall apply conditions 2.9 and 2.10 when implementing the follow-up program.*

The federal DS requirements related to follow-up and adaptive management are:

> *"2.5 The Proponent shall, where a follow-up program is a requirement of a condition set out in this Decision Statement, have a Qualified Professional, where such a qualification exists for the subject matter of the follow-up program, determine, as part of the development of each follow-up program and in consultation with the party or parties being consulted during the development, the following information:*
>
> *2.5.1 the follow-up activities that must be undertaken by a qualified individual;*
>
> *2.5.2 the methodology, location, frequency, timing and duration of monitoring associated with the follow-up program;*
>
> *2.5.3 the scope, content, format and frequency of reporting of the results of the follow-up program;*
>
> *2.5.4 the levels of environmental change relative to baseline conditions that would require the Proponent to implement modified or additional mitigation measure(s), including instances where the Proponent may require Designated Project activities to be stopped; and*
>
> *2.5.5 the technically and economically feasible mitigation measures to be implemented by the Proponent if monitoring conducted as part of the follow-up program shows that the levels of environmental change referred to in condition 2.5.4 have been reached or exceeded.*
>
> *2.6 The Proponent shall update and maintain the follow-up and adaptive management information referred to in condition 2.5 during the implementation of each follow-up program in consultation with the party or parties being consulted during the development of each follow-up program."*

Condition 3 of the EAC requires an adaptive management plan to provide a framework for identifying triggers to determine effectiveness of mitigation and whether additional mitigation is required to address air quality effects. The adaptive management plan, as defined in Condition 3(d) to 3(l) of the EAC, must include at least the following:

> *"3(d) the monitoring program that will be used including methods, location, frequency, timing and duration of the monitoring;*

3(e) the baseline information that will be used, or collected where existing baseline information is insufficient, to support the monitoring program;

3(f) the scope, content and frequency of reporting of the monitoring results;

3(g) the identification of qualitative and quantitative triggers, which, when observed through monitoring required under paragraph d), will require the Holder to alter existing, or develop new, mitigation measures to avoid, reduce, and/or remediate effects;

3(h) methods that will be applied to detect when a numeric trigger, or type or level of change referred to in paragraph g) occurs;

3(i) a description of the process for and timing to alter existing mitigation measures or develop new mitigation measures to reduce or avoid effects;

3(j) identification of the new and/or altered mitigation measures that will be applied when any of the changes identified in paragraphs a) to c) occur, or the process by which those will be established and updated over the relevant timeframe for the specific condition;

3(k) the monitoring program that will be used to determine if the altered or new mitigation measures and/or remediation activities are effectively mitigating or remediating the effects and or avoiding potential effects; and

3(l) The scope, content and frequency of reporting on the implementation of altered or new mitigation measures."

9.1 Air Quality Trigger Response Framework

Triggers are provided for the following action levels of the adaptive management framework: none, and low, medium; and high. The framework is intended to provide an early-warning system such that when defined action levels are triggered there is sufficient time to prevent irreversible adverse environmental effects to health of Indigenous Peoples.

The air quality adaptive management triggers and responses are provided in Table 9.1-1. The actions that will be taken are based on visual inspections of fugitive dust on the MAR and mine site roads, dustfall monitoring, PM, PM_{10}, and $PM_{2.5}$, metals, SO_2 and NO_2 measurements at the operations camp. An appropriate action level will be developed based on guidance in the adaptive management framework: British Columbia Ambient Air Quality Objectives (BC ENV 2020c) for particulate matter and gases such as nitrogen dioxide and sulfur dioxide.

It is important to note that appropriate action responses resulting from dust observations are quite different than appropriate action responses resulting from fine PM measurements. When visible dust is observed, typically the source of the dust will be evident, and the mitigation measures are well-defined as shown in Table 9.1-1.

The PM_{10} and $PM_{2.5}$ concentrations will be measured on 24-hour basis every three days during summer and every six days during winter and there will be a delay between the measurement date and reporting results after weighing the filter for the 24-hour period. Additionally, unlike a visible dust observation, the source of the elevated PM_{10} and $PM_{2.5}$ concentrations may or may not be immediately apparent. Some analysis may be required to determine the cause and specify appropriate corrective action(s). This analysis will involve determining the operational and/or meteorological conditions that were present during the elevated PM event and determining if operational changes should be implemented to limit emissions.

Table 9.1-1: Trigger Action Response

Component	Location	Level	Trigger	Management Response
Fugitive Dust	Unpaved Roads	None	Dust plume less than half the height of a haul truck tire.	No action. Continue work in accordance with site management procedures.
		Low	Dust plume less than half the size of a haul truck for any period of time up to 30 minutes.	Limited watering of high traffic areas. Repeat visual inspection every 2 hours depending on weather.
		Medium	Dust plume same size as a haul truck extending beyond local area for periods longer than half a day.	Continuous watering of high traffic areas until dust plume subsides. Speed limit restrictions in high traffic areas.
		High	Dust plume greater than the size of a haul truck for periods longer than 1 day, or when dust plumes extend beyond the active mine area/infrastructure.	Increase frequency of watering and if not successful examine longer use of alternative dust suppressants (e.g., calcium or magnesium chloride, lignin compounds, environmentally friendly oils or clay additives). Speed limit restrictions may be required if dust cannot be controlled by watering. Closure of certain routes may be required if dust cannot be controlled by watering or speed restrictions.
	Surface Earthworks	None	Minor localized dust (dust plumes that are less than 2 m in height) during construction and normal mine operations.	No action. Continue work in accordance with site management procedures.
		Low	Visible dust plumes rising over 2 m above the active construction area for longer than 30 minutes.	Minimize material movement in areas with active construction or operation and heavy equipment use.
		Medium	Triggers per level 1 but with dust plume extending beyond local area for periods longer than half a day.	Application of water to exposed construction area (if this is a source).
		High	Extensive areas of dust generation with large dust plumes for periods longer than 1 day or when dust plumes extend beyond the active mine area/ infrastructure.	Increase frequency of watering and if not successful apply gravel to exposed construction area (if this is a source). Investigate long term solutions if dust plumes persist.

Component	Location	Level	Trigger	Management Response
Fugitive Dust *(cont'd)*	Stockpiles	None	Minor localized dust (dust plumes that are less than 2 m in height) during construction and normal mine operations.	No action. Continue work in accordance with site management procedures.
		Low	Visible dust plumes rising over 2 m above the ground for longer than 30 minutes.	Turn on spray bar sprinklers[1]. During periods where temperature are below freezing add reagents to control dust.
		Medium	Triggers per level 1 but with dust plume extending beyond local area for periods longer than half a day.	Increase the rate of water application using spray bar sprinklers. During periods where temperature are below freezing, add reagents to control dust.
		High	Extensive areas of dust generation with large dust plumes for periods longer than 1 day or when dust plumes extend beyond the active mine area/infrastructure.	Examine the possibility of re engineering the spray bar sprinklers[1] to provide more effective water coverage of transfer points.
	Material handling transfer locations	None	Minor localized dust (dust plumes that are less than 2 m in height) during construction and normal mine operations.	No action. Continue work in accordance with site management procedures.
		Low	Visible dust plumes rising over 2 m above the ground for longer than 30 minutes.	Turn on spray bar sprinklers[1]. During periods where temperature are below freezing add reagents to control dust.
		Medium	Triggers per level 1 but with dust plume extending beyond local area for periods longer than half a day.	Increase the rate of water application using spray bar sprinklers[1]. During periods where temperature are below freezing, add reagents to control dust.
		High	Extensive areas of dust generation with large dust plumes for periods longer than 1 day or when dust plumes extend beyond the active mine area/ infrastructure.	Examine the possibility of re engineering the spray bar sprinklers[1] to provide more effective water coverage of transfer points.

Component	Location	Level	Trigger	Management Response
PM_{10} and $PM_{2.5}$	Operations Camp	None	The annual average PM_{10} and $PM_{2.5}$ concentration is less than or equal to 50% of the Ambient Air Quality Objective.	No action. Continue monitoring.
		Low	The annual average PM_{10} and $PM_{2.5}$ concentration is greater than 50% but less than or equal to 80% of the Ambient Air Quality Objective.	Continue monitoring. Develop causal analysis and associated mitigations in addition to a schedule for implementation based on the exceedance level.
		Medium	The annual average PM_{10} and $PM_{2.5}$ concentration is greater than 80% but less than or equal to 100% of the Ambient Air Quality Objective.	Develop causal analysis and associated mitigations in addition to a schedule for implementation. Increase sampling frequency to every other day.
		High	The annual average PM10 and $PM_{2.5}$ concentration is greater than the Ambient Air Quality Objective.	Implement mitigations developed at the medium action level. Increase sampling frequency to daily.
SO_2 and NO_2	Operations Camp	None	The annual average SO_2 and/or NO_2 concentration is less than or equal to 50% of the Ambient Air Quality Objective.	No action. Continue monitoring.
		Low	The annual average SO_2 and/or NO_2 concentration is greater than 50% but less than or equal to 80% of the Ambient Air Quality Objective.	Continue monitoring. Develop causal analysis and associated mitigations in addition to a schedule for implementation based on the exceedance level.
		Medium	The annual average SO_2 and/or NO_2 concentration is greater than 80% but less than or equal to 100% of the Ambient Air Quality Objective.	Develop causal analysis and associated mitigations in addition to a schedule for implementation.
		High	The annual average SO_2 and/or NO_2 concentration is greater than the Ambient Air Quality Objective.	Implement mitigations developed at the medium action level.

Note:

[1] Spray bar sprinklers will be installed once trialing is complete.

For these reasons, the action/response associated with each level of alert is expressed in terms of how quickly the analysis and response is to be carried out. It is possible that fugitive dust will contribute to PM_{10}/ $PM_{2.5}$ concentrations, and thus actions taken in response to visual observations may be part of the response for elevated PM_{10}/ $PM_{2.5}$. The actions/responses for PM_{10}/ $PM_{2.5}$ listed in Table 9.1-1 are triggered based on 24-hour measurements since annual averages will only be known on an annual basis. As part of the adaptive management process the frequency of elevated 24-hour PM_{10}/ $PM_{2.5}$ concentrations and the trend analyses of PM_{10}/ $PM_{2.5}$ concentrations will be tracked and evaluated to provide assurance that the standards and objectives are achieved.

The EM or a qualified person will be responsible for calculating the 3-month trend analyses $PM_{2.5}$ concentration and will evaluate the frequency of occurrence of elevated 24-hour PM_{10} and $PM_{2.5}$ concentrations. Based on the findings, the EM may propose modifications to emissions control equipment and/or to dust management and amend the AQDMP. In addition, the EM will compare measurements to predictions from the effects assessment and make recommendations regarding modifications to mitigation measures if warranted.

If there is an air quality advisory issued by ENV that affects the region where the mine is located, the EM will determine if an adjustment to a higher alert level described in Table 9.1-1 is required to further mitigate dust emissions.

Passive sampling for SO_2 and NO_2 and low-flow particulate sampling with Partisols or similar units to monitor fine particulates at Tatelkuz Lake Resort and Tatelkus Lake 28 will be established to monitor air quality impacts offsite in the case that air quality monitoring on-site indicates it is required.

9.2 Follow-up Program

A Follow-up Program (FUP) will be conducted through all phases of the Project as defined by the federal DS Condition 6.12. The FUP has been developed and will continue to be updated in consultation with Indigenous groups (see Sections 8.4, 10.1.2, and 11). The main objective of the FUP will be to compare results of the air quality monitoring program with predictions made in the Environmental Assessment and determine the effectiveness of mitigation measures. Monitoring components will include NO_2, SO_2, $PM_{2.5}$, PM_{10}, dust, and CO.

To determine if modified or additional mitigation measures are required the results of the monitoring program will be compared to the predicted concentrations of criteria air contaminants shown in Tables 7.2-1 and 7.2-2. The predicted concentrations are considered to be baseline concentrations for the purposes of the FUP. None of the baseline concentrations reported in Tables 7.2-1 and 7.2-2 exceeded ambient air quality standards.

If the monitoring program as described in Section 8.3 exceeds the criteria air contaminant standards provided in Table 7.1-1 then additional mitigation measures including contingency measures described in Table 8.2-1 will be considered and implemented where required. The final determination of which additional mitigation will be required will be based on an analysis of the causes of the exceedances. The FUP will, over time, inform the monitoring program and adaptive management to improve mitigations, and result in closer tracking of predicted results with monitored results:

- Low = exceed baseline – continue monitoring
- Medium = exceed baseline and predicted – continue monitoring, develop casual analysis (if observed concentrations are approaching the guidelines)
- High = exceed baseline, predicted, and guideline – implement mitigations plan, increase sampling frequency, etc.

The FUP will be conducted on an annual basis as part of the annual reporting as described in Section 11.

10.0 Reporting and Record Keeping

10.1 Reporting

10.1.1 *Environmental Management Act* Annual Reporting

Environmental Management Act Permit #110650 requires annual reports to be prepared by a qualified professional and be submitted to ENV. Annual reports are public documents and include a summary of environmental incidents and complaints, all monitoring under permits, an assessment of the data, and recommendations as appropriate. The reporting must also conform to the requirements outlined in Developing a Fugitive Dust Management Plan for Industrial Projects (BC EMMPR & ENV, 2018) which require that adaptive management be used to evaluate the effectiveness and direct continual improvement of the AQFDMP.

BW Gold will follow reporting requirements in Technical Guidance 4 (BC MOE 2016b) and any amendments or updates thereto. Permit #110650 annual reporting must be submitted by March 31 of each year.

10.1.2 Decision Statement Annual Reporting

Annual reporting and information sharing requirements in the federal DS applicable to this plan are identified below. Conditions 2.11, 2.12, 2.13 and 2.14 identify annual reporting and information sharing requirements as follows:

- Condition 2.11 requires “The proponent [BW Gold] shall, commencing in the reporting year during which the proponent begins the implementation of the conditions set out in the DS, prepare an annual report that describes the activities undertaken by the proponent [BW Gold] in the reporting year to comply with each condition in the DS” as well as other matters identified in the Condition.
- Condition 2.12 requires “The proponent [BW Gold] shall provide a draft annual report in condition 11 to Indigenous groups, no later than June 30 following the reporting year to which the annual report applies. BW Gold shall consult the Indigenous groups on the content and findings in the draft annual report”.
- Condition 2.13 requires “The proponent [BW Gold] in consideration of any comments received from Indigenous groups pursuant to condition 2.12, shall revise and submit to the Agency [Impact Assessment Agency of Canada] and Indigenous groups a final annual report, including an executive summary in both official languages, no later than September 30 following the reporting year to which the annual report applies”.
- Conditions 2.14 requires:
  - “The Proponent [BW Gold] shall publish on the Internet, or any medium which is publicly available, the annual reports and the executive summaries…”. Names and contact information will be removed from the annual reports to protect confidentiality.
  - “The Proponent [BW Gold] shall keep these documents publicly available for 25 years following the decommissioning of the Designated Project”.
  - “The Proponent [BW Gold] shall notify the Agency and Indigenous groups of the availability of these documents within 48 hours of their publication”.

In addition, the DS Condition 6.15 requires that a plan to communicate the results of the FUP (Section 9.2) in plain language to Indigenous Groups and the relevant authorities as discussed in Section 10. This will be satisfied through the Annual Report.

10.1.3 Environmental Assessment Certificate #M19-01 Annual Reporting

Condition 5 of the EAC sets out reporting requirements. BW Gold will submit a report to the attention of the Environmental Assessment Office and Aboriginal Groups on the status of compliance with EAC #M19--01 at the following times:

a. at least 30 days prior to the start of Construction;

b. on or before March 31 in each year after the start of Construction;

c. at least 30 days prior to the start of Operations;

d. on or before March 31 in each year after the start of Operations;

e. at least 30 days prior to the start of Closure;

f. on or before March 31 in each year after the start of Closure until the end of Closure;

g. at least 30 days prior to the start of Post-Closure; and

h. on or before March 31 in each year after the start of Post-Closure until the end of Post-Closure.

10.2 Emergency Reporting and Process Modification Procedures

In the event of an emergency or other condition which prevents normal operation of the air pollution control systems described in Section 5.3 or leads to an unauthorized discharge, BW Gold will take action to immediately to restore the normal operation and to prevent any unauthorized discharges. The emergency or other condition along with the remedial action that has and will be taken will be reported to the EnvironmentalCompliance@gov.bc.ca email address or as otherwise instructed by ENV.

In the event of a spill or the risk of a spill occurs, BW Gold will report it immediately by calling 1-800-663-3456 in accordance with the Spill Reporting Regulation.

In the case that BW Gold would like to modify a process that may increase the generation of fugitive dust and/or adversely affect the quality and/or quantity of the discharge to the receiving environment, ENV will be notified before implementing changes to any process. The notification must include details of any mitigation measures to be implemented as a result of the process modification. In addition BW Gold will request written approval should there be a need to bypass processes authorized by ENV.

10.3 Record Keeping

The EM will be responsible for ensuring dust events are logged, including details of the on-site activities, meteorological conditions, and the management actions taken. The EM will also be responsible for ensuring that analysis and mitigation for any fine PM event is completed in a timely manner. Records will be maintained for:

- Public complaints;
- Meteorological stations;
- Dust visual observations;
- Particulate matter monitoring; and
- Nitrogen dioxide and SO_2 monitoring.

Monitoring data will be entered into an electronic database and have quality control checks completed upon receipt of results. Data will be entered into a standard format that allows for data reporting and analyses. Data and data comparisons will be stored in a single file format for each type of survey or monitoring activity. Monitoring records will be maintained and retained in accordance with Conditions 12.1 and 12.2 of the federal DS respectively. The records will be made available upon request.

11.0 Plan Revisions

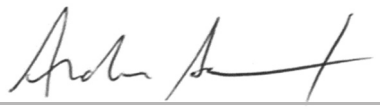
The AQDMP will be reviewed annually by a qualified professional per ELoMC annual schedule to: review the monitoring program; confirm that the measures in the plan are being implemented; and identify any improvements to improve the effectiveness of fugitive dust best management practices. AQDMP revisions will be required:

- If the monitoring program shows that the effects of the Project are not mitigated to the extent contemplated or predicted in the Application/EIS (New Gold 2015) or exceed adaptive management triggers;
- There are new and /or changes to emission sources; and
- There are changes to other relevant management plans and regulatory requirements; and
- There are amendments to the operating permit conditions.

Proposed changes will be documented via the provision a change log document including rationale for changes, which will be provided at the same time (where possible) or following resubmission of the AQFDMP. As required by EAC #M19-01 Condition 20, the plan and any amendments thereto, will be implemented to the satisfaction of a qualified professional throughout construction, operations, and closure and to the satisfaction of the EAO. Revised versions of the AQDMP will be provided to EAO, ELoMC, and Northern Health through the Condition 42 public website. Upon submissions of updated Management plans, reviewers will be invited to share and direct any comments, questions or concerns on the AQFDMP updates through the ELoMC. Regular presentations of implementation of management plans including the AQFDMP will also be provided to reviewers per the ELoMC annual schedule of topics/development of monthly meeting agendas.

12.0 Qualified Professionals

This management plan has been prepared and reviewed by the following qualified professionals:

Reviewer Role	Name	Signature	Date
Prepared by:	Andres Soux, M.Sc. Principal Consultant		August 28, 2023
Reviewed by:	Rolf Schmitt, P.Geo. Technical Director		August 28, 2023

ERM Permit to Practice No.: 1001271

13.0 References

Definitions of the acronyms and abbreviations used in this reference list can be found in the Acronyms and Abbreviations section.

Legislation

Canadian Environmental Protection Act, 1999, SC 1999, c. 33.

Code of Practice for the Concrete and Concrete Products Industry, BC Reg. 329/2007.

Declaration on the Rights of Indigenous Peoples Act, SBC 2019, c. 44.

Environmental Assessment Act, SBC 2018, c. 51.

Environmental Management Act, SBC 2003, c. 53.

Impact Assessment Act, RSC 2019, c. 28.

Mines Act, RSBC 1996, c. 293.

Open Burning Smoke Control Regulation, BC Reg. 145/93.

Sulphur in Diesel Fuel Regulation, SOR/2002-254.

United Nations Declaration on the Rights of Indigenous Peoples Act, SC 2021, c. 14.

Waste Discharge Regulation, BC Reg. 320/2004.

Secondary

BC EAO. 2019a. *Assessment Report for Blackwater Gold Mine Project (Blackwater) With respect to the Application by New Gold Inc. for an Environmental Assessment Certificate pursuant to the* Environmental Assessment Act, S.B.C. 2002, c.43. Prepared by the Environmental Assessment Office. May 17, 2019.

BC EAO. 2019b. *Summary Assessment Report for Blackwater Gold Mine Project (Blackwater) With respect to the application by New Gold Inc. for an Environmental Assessment Certificate pursuant to the* Environmental Assessment Act, S.B.C. 2002, c. 43.

BC EAO. 2019c. *In the matter of the* ENVIRONMENTAL ASSESSMENT ACT *S.B.C. 2002, c. 43 (the Act) and in the matter of an Application for an Environmental Assessment Certificate (Application) by New Gold Inc. (Proponent) for the Blackwater Gold Project Environmental Assessment Certificate #M19-01.*

BC EMLI. 2022. *Health, Safety and Reclamation Code for Mines in British Columbia.* https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/mineral-exploration-mining/documents/health-and-safety/code-review/health_safety_and_reclamation_code_nov2022.pdf

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Appendix A Concordance with Environmental Assessment Certificate #M19-01 (June 21, 2019)

Appendix A Concordance with Environmental Assessment Certificate #M19-01 (June 21, 2019)

Condition #	Description	Action/Location in the Plan
1.	**Document Review and Implementation** Where a condition of this Certificate requires the Holder to provide a plan, program or other document, the Holder must provide the plan, program or other document to the EAO and Aboriginal Groups in the timeframe referenced in such condition, unless otherwise approved by the EAO. The EAO may, within 60 days of receiving a copy of such plan, program or other document, advise that: 1. the Holder may proceed to implement the plan, program or other document with or without revisions; or 2. a revised plan, program, or other document must be provided for approval of the EAO prior to a specified activity or milestone. If the EAO advises pursuant to paragraphs (a) or (b) that changes are required to a plan, program, or other document, then the Holder must follow the instructions of the EAO in that regard. If the EAO does not advise on paragraphs (a) or (b) within 60 days of the EAO receiving a plan, program, or other document, the Holder may proceed to implement the plan, program or other document. The Holder may, or the EAO may require the Holder to, revise any plan, program or other document if the Holder or the EAO determines that the implementation of the plan, program or other document is not: 3. meeting one or more objectives of the plan, program or other document set out in the relevant condition of this Certificate; 4. having the effects contemplated or intended, as set out in the plan, program or other document itself; 5. consistent with the Certificate; or 6. consistent with changes in industry best practices or technology.	Draft AQDMP provided to Aboriginal Groups in August 2021 for review and comment.
2.	**Plan Development** Where a condition of this Certificate requires the Holder to develop a plan, program or other document, any such plan, program or other document must, at a minimum, include the following information:	
	a. purpose and objectives of the plan, program or other document;	Section 1
	b. roles and responsibilities of the Holder and Employees;	Section 3, Table 3-1

Condition #	Description	Action/Location in the Plan
	c. names and, if applicable, professional certifications and professional stamps/seals, of those responsible for the preparation of the plan, program, or other document;	Signed by qualified professional
	d. schedule for implementing the plan, program or other document throughout the relevant Project phases;	Section 1 – the AQDMP will be implemented during construction, operations and closure
	e. means by which the effectiveness of the mitigation measures will be evaluated including the schedule for evaluating effectiveness;	Section 8.3, Section 9.2
	f. schedules and methods for the submission of reporting to specific agencies, Aboriginal Groups and the public and the required form and content of those reports; and	Section 10
	g. process and timing for updating and revising the plan, program or other document, including any consultation with agencies and Aboriginal Groups that would occur in connection with such updates and revisions.	Section 11
3.	**Adaptive Management** Where a condition of this Certificate requires the Holder to develop a plan, program or other document that includes monitoring, including monitoring of mitigation measures or monitoring to determine the effectiveness of the mitigation measures, the Holder must include adaptive management in that plan. The objective of the adaptive management is to address the circumstances that will require the Holder to implement alternate or additional mitigation measures to address effects of the Project if the monitoring shows that those effects: a. are not mitigated to the extent contemplated in the Application; b. are not predicted in the Application; or c. have exceeded the triggers identified in paragraph g) of this condition. The adaptive management in the plan must include at least the following: d. the monitoring program that will be used including methods, location, frequency, timing and duration of the monitoring;	Section 4, Section 8
	e. the baseline information that will be used, or collected where existing baseline information is insufficient, to support the monitoring program;	n/a (the baseline information is sufficient and monitoring data will continue to be collected over the LoM)
	f. the scope, content and frequency of reporting of the monitoring results;	Section 10.1

Condition #	Description	Action/Location in the Plan
	g. the identification of qualitative and quantitative triggers, which, when observed through monitoring required under paragraph d), will require the Holder to alter existing, or develop new, mitigation measures to avoid, reduce, and/or remediate effects;	Section 9.1, Table 9.1-1
	h. the methods that will be applied to detect when a numeric trigger, or type or level of change referred to in paragraph g), has occurred.	Section 9.1, Table 9.1-1
	i. a description of the process for and timing to alter existing mitigation measures or develop new mitigation measures to reduce or avoid effects;	Section 9.2
	j. identification of the new and/or altered mitigation measures that will be applied when any of the changes identified in paragraphs a) to c) occur, or the process by which those will be established and updated over the relevant timeframe for the specific condition;	Identification of new or altered mitigation measures will be determined based on monitoring results.
	k. the monitoring program that will be used to determine if the altered or new mitigation measures and/or remediation activities are effectively mitigating or remediating the effects and or avoiding potential effects; and,	Monitoring results and will be used to determine if mitigation measures are effective or need to be modified. The monitoring program is described in Section 8.3.
	l. the scope, content and frequency of reporting on the implementation of altered or new mitigation measures.	Section 10.1
	If there are any requirements or mitigation measures required in the plan, program or other document for which adaptive management, or elements of adaptive management listed in paragraphs d) to l) are assessed to be not appropriate or applicable, the plan must include identification of those requirements and measures, and the rationale for that assessment.	This will be assessed in future plan updates.
4.	**Consultation** Where a condition of this Certificate requires the Holder consult a particular party or parties regarding the content of a plan, program or other document, the Holder must, to the satisfaction of the EAO: 1. provide written notice to each such party that: i) includes a copy of the plan, program or other document; ii) invites the party to provide its views on the content of such plan, program or other document; and iii) indicates: 1.1 if a timeframe for providing such views to the Holder is specified in the relevant condition of this Certificate, that the party may provide such views to the Holder within such time frame; or	Draft AQDMP provided to Aboriginal Groups in August 2021 for review and comment. While BW Gold sets general timeframes for review and comments via written notice, BW Gold and Aboriginal Groups engage in ongoing communication to establish flexible timeframes agreed to by all parties.

Condition #	Description	Action/Location in the Plan
	1.2 if a timeframe for providing such views to the Holder is not specified in the relevant condition of this Certificate, specifies a reasonable period during which the party may submit such views to the Holder;	
	2. undertake a full and impartial consideration of any views and other information provided by a party in accordance with the timelines specified in a notice given pursuant to paragraph (a);	Comments from Aboriginal Groups and corresponding BW Gold responses are maintained in a tracking table. BW Gold comprehensively and impartially reviews received comments received within agreed upon timeframes on a regular basis.
	3. provide a written explanation to each such party that provided comments in accordance with a notice given pursuant to paragraph (a) as to: 3.1 how the views and information provided by such party to the Holder have been considered and addressed in a revised version of the plan, program or other document; or 3.2 why such views and information have not been addressed in a revised version of the plan, program or other document;	Responses BW Gold provides in the tracking table include explanations on how comments from Aboriginal Groups have been addressed in a revised version of the AQMP. In cases where such comments have not been addressed in the revised version, BW Gold similarly explains its rationale for doing so.
	4. maintain a record of consultation with each such party regarding the plan, program or other document; and	BW Gold is maintaining consultation records
	5. provide a copy of such consultation record to the EAO, the relevant party, or both, promptly upon the written request of the EAO or such party. The copy of such consultation record must be provided to the EAO, relevant party, or both, no later than 15 days after the Holder receives the request for a copy of the consultation record, unless otherwise authorized by the EAO.	Potential future requirement.
20.	The Holder must retain a Qualified Professional to develop an Air Quality and Dust Management Plan. The plan must be developed in consultation with ENV, EMPR, NHA and Aboriginal Groups. The plan must include at least the following: a. the means by which the mitigation measures identified in the Mitigations Table required under Condition 43 for the valued component Air Quality will be implemented;	Section 8.2

Condition #	Description	Action/Location in the Plan
	b. the means by which guidance contained in EMPR's and ENV's guidance: Developing a Fugitive Dust Management Plan for Industrial Projects (May 2018, or as updated or replaced from time to time) is addressed;	Appendix C
	c. the identification and detailed descriptions of dust-emitting sources from the Project;	Section 6
	d. the identification of environmental receptors to be monitored;	Section 8.3
	e. a compliance monitoring program, including the locations of monitoring stations and equipment that will be used to conduct the monitoring;	Section 8.3
	f. the contaminants of potential concern (COPC) and corresponding concentrations (triggers) that would cause the Holder to take corrective action to reduce contaminant concentrations to avoid adverse health effects to receptors identified in paragraph d);	Section 7.1
	g. how this plan will inform the Wildlife Management and Monitoring Plan (Condition 23), and Country Foods Monitoring Plan (Condition 41); and	Section 1.4
	h. how the Holder will notify the EAO, ENV, EMPR, NHA, Aboriginal Groups, IEM, and the public in the event that contaminant concentration triggers identified in paragraph f) are exceeded. The notification must include both a technical report and a plain language summary of the technical report.	Section 8.4
	The Holder must provide the draft plan that was developed in consultation with ENV, EMPR, NHA, and Aboriginal Groups to ENV, EMPR, NHA, Aboriginal Groups and the EAO for review a minimum of 60 days prior to the planned commencement of Construction or as listed in the Document Submission Plan required by Condition 10 of this Certificate.	To be submitted 60 days prior to planned commencement.
	The plan and any amendments thereto, must be implemented to the satisfaction of a Qualified Professional throughout Construction, Operations, and Closure and to the satisfaction of the EAO.	Future requirement.

Appendix B Concordance with Canadian Environmental Assessment Agency Decision Statement (April 2019)

Appendix B Concordance with Canadian Environmental Assessment Agency Decision Statement (April 2019)

Condition #	Description	Location in Plan
2.1 (General Conditions)	The Proponent shall ensure that its actions in meeting the conditions set out in this Decision Statement during all phases of the Designated Project are considered in a careful and precautionary manner, promote sustainable development, are informed by the best information and knowledge available at the time the Proponent takes action (including community and Indigenous traditional knowledge), are based on methods and models that are recognized by standard-setting bodies, are undertaken by qualified individuals, and have applied the best available economically and technically feasible technologies.	Section 5; Section 7; Section 8; Section 12
2.2 (General Conditions)	The Proponent shall, when mitigation is a requirement of a condition set out in this Decision Statement, give preference to avoiding the adverse environmental effect of the Designated Project over minimizing the adverse environmental effect of the Designated Project. If unable to avoid the adverse environmental effect, the Proponent shall give preference to minimizing the adverse environmental effect of the Designated Project over compensating for the adverse environmental effect of the Designated Project. If unable to minimize the adverse environmental effect, the Proponent shall compensate for the adverse environmental effect of the Designated Project.	Section 8.2; Section 8.3
2.3 (General Conditions)	The Proponent shall, where consultation is a requirement of a condition set out in this Decision Statement: 2.3.1 provide a written notice of the opportunity for the party or parties being consulted to present their views and information on the subject of the consultation; 2.3.2 provide all information available and relevant on the scope and the subject matter of the consultation and a period of time agreed upon with the party or parties being consulted, not less than 15 days, to prepare their views and information; 2.3.3 undertake a full and impartial consideration of all views and information presented by the party or parties being consulted on the subject matter of the consultation; 2.3.4 strive to reach consensus with Indigenous groups; and 2.3.5 advise the party or parties being consulted on how the views and information received have been considered by the Proponent including a rationale for why the views have, or have not, been integrated. The Proponent shall advise the party or parties in a time period that does not exceed the period of time taken in 2.3.2.	In Progress; Section 11

Condition #	Description	Location in Plan
2.4 (Consultation)	The Proponent shall, where consultation with Indigenous groups is a requirement of a condition set out in this Decision Statement, determine and strive to reach consensus with each Indigenous group regarding the manner by which to satisfy the consultation requirements referred to in condition 2.3, including: 2.4.1 the methods of notification; 2.4.2 the type of information and the period of time to be provided when seeking input; 2.4.3 the process to be used by the Proponent to undertake impartial consideration of all views and information presented on the subject of the consultation; and 2.4.4 the period of time and the means by which to advise Indigenous groups of how their views and information were considered by the Proponent.	In Progress
2.11 (Annual Reporting)	The Proponent shall, commencing in the reporting year during which the Proponent begins the implementation of the conditions set out in this Decision Statement, prepare an annual report that sets out: 2.11.1 the activities undertaken by the Proponent in the reporting year to comply with each of the conditions set out in this Decision Statement; 2.11.2 how the Proponent complied with condition 2.1; 2.11.3 for conditions set out in this Decision Statement for which consultation is a requirement, how the Proponent considered any views and information that the Proponent received during or as a result of the consultation, including a rationale for how the views have, or have not, been integrated; 2.11.4 the information referred to in conditions 2.5 and 2.6 for each follow-up program; 2.11.5 the results of the follow-up program requirements identified in conditions 3.14, 3.15, 3.16, 4.5, 5.5, 6.11, 6.12, 6.13, 6.14, 8.18.6, 8.20.5, 8.21, and 8.22 if required; 2.11.4 any update made to any follow-up program in the reporting year; 2.11.7 any modified or additional mitigation measures implemented or proposed to be implemented by the Proponent, as determined under condition 2.9 and rationale for why mitigation measures were selected pursuant to condition 2.5.4; and 2.11.8 any change(s) to the Designated Project in the reporting year.	Section 10.1.2
2.12 (Annual Reporting)	The Proponent shall provide a draft annual report referred to in condition 2.11 to Indigenous groups, no later than June 30 following the reporting year to which the annual report applies. The Proponent shall consult Indigenous groups on the content and findings in the draft annual report.	Section 10.1.2
2.13 (Annual Reporting)	The Proponent, in consideration of any comments received from Indigenous groups pursuant to condition, 2.12 shall revise and submit to the Agency and Indigenous groups a final annual report, including an executive summary in both official languages, no later than September 30 following the reporting year to which the annual report applies.	Section 10.1.2

Condition #	Description	Location in Plan
2.15 (Information Sharing)	When the development of any plan is a requirement of a condition set out in this Decision Statement, the Proponent shall submit the plan to the Agency and to Indigenous groups prior to construction, unless otherwise required through the condition.	In Progress
6.1	The Proponent shall mitigate, during all phases of the Designated Project, emissions of fugitive dust from the Designated Project, including dust associated with vehicles on project roads.	Section 8.2, Table 8.2-1
6.3	The Proponent shall develop, prior to construction and in consultation with Indigenous groups, a protocol for receiving complaints related to the exposure to noise and dust from the Designated Project. The Proponent shall respond to any noise or dust complaint(s) within 48 hours of the complaint being received and shall implement corrective actions to reduce exposure to noise or dust in a timely manner. The Proponent shall implement the protocol during construction, operation and decommissioning.	Section 8.4
6.12	The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment as it pertains to adverse environmental effects of the Designated Project on the health of Indigenous Peoples as a result of changes to air quality and determine the effectiveness of mitigation measures. As part of the implementation of the follow-up program, the Proponent shall monitor nitrogen dioxide (NO_2), sulfur dioxide (SO_2), fine particulate matter ($PM_{2.5}$), particulate matter (PM_{10}), dust, and carbon monoxide (CO) in air. The Proponent shall implement the follow-up program during all phases of the Designated Project and shall apply conditions 2.9 and 2.10 when implementing the follow-up program.	Section 9
6.15	The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, and implement, during all phases of the Designated Project, a plan to communicate the results of the follow-up program referred to in conditions 6.11, 6.12, 6.13 and 6.14 in plain language to Indigenous groups and relevant authorities. The communication plan shall include the procedures to communicate, including the frequency of communication.	Section 10.1.2

Appendix C Concordance Table with Developing a Fugitive Dust Management Plan for Industrial Projects (EMPR & ENV 2018)

Appendix C Concordance Table with Developing a Fugitive Dust Management Plan for Industrial Projects (EMPR & ENV 2018)

Section	Description	Location in the Plan
1. Introduction	This section provides contextual background information on the project, project overview, and regulatory framework.	Section 1 Section 2
1.1 Company Information	Provide an overview including the name, organization and structure of the operating company.	Section 1.1
1.2 Permitting	Identify the permit for which this document is being developed and other relevant licences, authorizations and regulations which impact on this document.	Section 1
1.3 Purpose/Objectives and Scope	Describe the purpose and/or objectives that this plan will address.	Section 1
1.4 Authorship	A record of the development of the FDMP should be included.	Section 12
1.5 Submitted to	A record of the development and submission of the FDMP should be included.	n/a – The plan is being submitted with a Joint *Mines Act/ Environmental Management Act* permit application. This application seeks authorizations for air discharges.
2. Roles and Responsibilities	Describe the roles and responsibilities for implementation of, and compliance with, the plan.	Section 3 (AQDMP)
3. Facility Description and Setting		
3.1 Site Ownership and Physical Location	Provide information on the site ownership, all relevant tenures/ permit boundaries, and the project location in relation to local communities and other sensitive receptors.	Section 5.1 and 5.2
3.2 Descriptive Overview of the Facility	Provide a brief overview of the site and activities that could result in fugitive dust.	Section 5.3
3.3 Process Flow Diagram or Description of the Facility	Provide a process flow diagram and/or use descriptions to indicate the process, operations and equipment that have the potential to emit fugitive dust.	Figure 5.3-3
3.4 Facility Site Map (Including Dust Sources)	The site map will clearly identify the locations of all fugitive dust emission sources and site features discussed in the facility description.	Figure 5.2-3

Section	Description	Location in the Plan
4. Identification of Potential Sources or Activities which Generate Fugitive Dust	The FDMP must contain a list of potential sources and/or activities which may generate fugitive dust.	Section 6
4.1 Source List Review	The FDMP must include a procedure to ensure the source list is reviewed on a regular schedule to reflect current conditions.	Section 11
4.2 Source List Update Procedure	Outline the procedure to take when updating or removing existing sources or adding new sources to the list established in Section 4.1	Section 11
4.3 Fugitive Dust Source List	The fugitive dust source list must include the following: • unique identification number or designation for each source; • location of the source within the facility (or reference id on the included site map); • potential source of fugitive dust; • factors influencing generation of dust (e.g., wind, operational activities); and • identification of the dust-generating material (e.g., aggregate, clean coal, road dust).	Table 6-2
5. Identification of Potential Effects of Fugitive Dust	The potential effects of dust both on and off the site should be identified.	Section 7
6. Fugitive Dust Management	The FDMP must contain a description of how fugitive dust will be managed onsite.	Section 8.2
6.1 Best Management Practices (BMP)	BMPs represent the current ‘state of practice’ approach to manage dust impacts and effects, and aim to produce outcomes consistent with social, economic and environmental expectations.	Table 8.2-1
6.2 Site Specific Mitigation Measures	The FDMP is most effective when it is developed to be a site-specific, operational plan.	Section 8.2
7. Plan Implementation		
7.1 Training	The plan should identify training and frequency of training of site personnel identified in the ‘Roles and Responsibilities’ section to ensure that they are aware of their responsibilities under the plan.	Section 8.1
7.2 Monitoring and Maintenance	Monitoring activities may include tracking of public complaints, visual inspection of facilities by site personnel, and quantitative monitoring of the environment, such as passive particulate deposition (dustfall) or active suspended particulate (TSP, PM10 or PM2.5) sampling on and off site, to evaluate the effectiveness of dust control practices and to quantify levels of fugitive dust and its composition leaving the site.	Section 8.3

Section	Description	Location in the Plan
7.3 Trigger Action Response Plan (TARP)	The Response Plan should include specific triggers, actions to be taken, and reporting protocols.	Section 9
7.4 Record Keeping	The FDMP must include information on record keeping, including a complaint tracking tool and a record of dust events and responses.	Section 10.2
8. Adaptive Management	Adaptive management may be used to evaluate the effectiveness and direct continual improvement of the FDMP.	Section 9
9. Reporting	Outline the structure and timing of reporting, taking into account the annual reporting requirements of regulatory agencies, updates to First Nations and the public, and reporting related to the TARP (i.e., reporting out on dust events).	Section 10.1
10. References	References	Section 13.0

Appendix D Transmission Line Air Quality and Fugitive Dust Management Plan

ARTEMIS GOLD INC

Blackwater Mine

Transmission Line Air Quality and Fugitive Dust Management Plan

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Work Instructions

Name of SOP

Version	G.1
Replaces	F.1
Creation Date	01/22/2024
Scheduled Review Date	
Review Date	
Document Team Members	
Document Owner:	
Document Approver:	
Related Documents:	
Key Contacts:	
Change Requests:	

Context Statement

The Blackwater Gold Project (Project) received an Environmental Assessment Certificate #M19-01 (EAC) on June 21, 2019, under the 2002 *Environmental Assessment Act,* and received a Decision Statement (DS) on April 15, 2019, under the *Canadian Environmental Assessment Act, 2012*, approving the Project with conditions. Blackwater is an open pit gold and silver mine with associated ore processing facilities located 110 km southwest of Vanderhoof in central British Columbia. The EAC and DS includes activities associated with the construction and operation of an electrical transmission line (TL) that is required to provide the energy requirements for the Project. A number of provincial permits and authorizations will be required to construct and operate the TL. The primary permits include the following: Statutory Right-of-Way (StROW) and interim Licence of Occupation (LOO) for Crown Land, an Occupant Licence to Cut (OLTC), Road and Special Use Permits (for Roads), and Junction Permits for critical road intersections.

This Transmission Line Air Quality and Fugitive Dust Management Plan (TL AQDMP) supports applications for Crown land tenure (i.e., ROW, LOO) under the Land Act and is also required under the *Forest and Range Practices Act* (FRPA), and the Occupational Health and Safety (OHS) Regulation.

Acronyms and Abbreviations

Artemis	Artemis Gold Inc.
BC	British Columbia
Blackwater	Blackwater Gold Project
BMP	Best Management Practices
BW Gold	BW Gold Ltd.
CEO	Chief Executive Officer
CCME	Canadian Council of Ministers of the Environment
CCN	Cheslatta Carrier Nation
Code	Health, Safety and Reclamation Code for Mines in British Columbia
COO	Chief Operating Officer
CSFN	Carrier Sekani First Nations
CO	Carbon Monoxide
COPC	Contaminants of Potential Concern
DFO	Fisheries and Oceans Canada
DS	Decision Statement
EAC	Environmental Assessment Certificate
EAO	Environmental Assessment Office
ECCC	Environment and Climate Change Canada
EC	Environmental Certificate
ELoMC	Environmental Life of Mine Committee
EM	Environmental Manager
EMBC	Emergency Management British Columbia
EMLI	Ministry of Energy, Mines and Low Carbon Innovation
EMP	Environmental Management Plan
EMPR	Ministry of Energy Mines and Petroleum Resources
EMS	Environmental Management System
ENV	Ministry of Environment and Climate Change Strategy

EPC	Engineering, Procurement, and Construction
FSR	Forest Service Road
GM	General Manager
JAIR or Joint MA/EMA Application	Joint Application Information Requirements for *Mines Act and Environmental Management Act* Permits
ha	hectares
Indigenous nations	Lhoosk'uz Dené Nation, Ulkatcho First Nation, Nadleh Whut'en First Nation, Stellat'en First Nation, Saik'uz First Nation, and Nazko First Nation as defined by EAC M#19-01
km	Kilometre
L	Litre
LDN	Lhoosk'uz Dené Nation
m	Metre
MOE	Ministry of Environment
MT	Mitigation Table
NFN	Nazko First Nation
NHA	Northern Health Authority
NO_X	Nitrogen Oxides
NWFN	Nadleh Whut'en First Nation
OBSCR	Open Burning Smoke Control Regulation
PAHs	Polyaromatic hydrocarbons
Plan	Transmission Line Air Quality and Fugitive Dust Management Plan
PM	Particulate Matter
PM_{10}	Particulate Matter <10 µm
$PM_{2.5}$	Particulate Matter <2.5 µm
Project	Blackwater Gold Project
QA/QC	Quality assurance/quality control
QP	Qualified Professional
ROW	Right of Way
SAO	Safe Act Observations

SFN	Saik’uz First Nation
SOW	Standard Operating Procedure
StFN	Stellat’en First Nation
SO_2	Sulphur Dioxide
t	tonnes
TARP	Trigger Action Response Plan
TK	Traditional Knowledge
TL	Transmission Line
TL AQDMP	Transmission Line Air Quality and Dust Management Plan
TL CEMP	Transmission Line Construction Environmental Management Plan
TL IPMP	Transmission Line Integrated Vegetation Management Plan
TL IVMP	Transmission Line Integrated Vegetation Management Plan
TL RCP	Transmission Line Reclamation and Closure Plan
TL SEPSCP	Transmission Line Surface Erosion Prevention and Sediment Control Plan
TL WMP	Transmission Line Wildfire Management Plan
WMMP	Wildlife Mitigation and Management Plan
TN	Tŝilhqot'in Nation
UFN	Ulkatcho First Nation
TSP	Total Suspended Particulates
UFN	Ulkatcho First Nation
US EPA	United States Environmental Protection Agency
VC	Valued Component
VOCs	Volatile Organic Compounds
VP	Vice President
WHMIS	Workplace Hazardous Materials Information System

1.0 Project Overview

The Blackwater Gold Project (the Project) is a gold and silver open pit mine located in central British Columbia (BC), approximately 112 kilometres (km) southwest of Vanderhoof, 160 km southwest of Prince George, and 446 km northeast of Vancouver. The Project site is presently accessed via the Kluskus Forest Service Road (FSR), the Kluskus-Ootsa FSR and an exploration access road, which connects to the Kluskus-Ootsa FSR at km 142. Electrical power for the Project will be supplied by a new approximately 135 km, 230 kilovolt overland transmission line (TL) that will connect to the BC Hydro grid at the Glenannan substation located near the Endako mine, 65 km west of Vanderhoof. A brief description of the proposed TL is as follows:

- From the Glenannan substation to the mine site permit area, the transmission line will be permitted by way of Licence of Occupation (statutory right-of-way; ROW);
- The TL will be constructed within a cleared right of way (ROW) of 40 metre (m) width for standard spans, but up to 50 m width for longer spans in select areas. The TL ROW area is approximately 515 ha;
- Existing permitted and non-status roads will be used for the purpose of accessing the ROW. New access trails and stream crossings will be located only within the TL cleared ROW;
- Equipment and material laydown areas will also lie within the cleared ROW; and
- The construction workforce will be housed at the Project camp or other independent commercial accommodations in the area.

Overall Project construction is anticipated to take two years. The TL is anticipated to take approximately 14 months to construct.

Post-construction, most of the temporary access trails used for construction on the TL ROW will be deactivated and/or decommissioned within 3 years with the exception of those required for maintenance. During operation of the TL there will be periodic inspections and maintenance as well as occasional unscheduled power supply interruptions that will require inspection and maintenance/repair activities.

Once commissioned, the TL will be required to support mine development throughout the Project's 23-year mine life. There may be some ongoing requirements for the TL following mine closure and into post-closure, pending post-closure electrical load evaluation. The TL will be decommissioned 46 years (or more) after construction, during the Project's post-closure phase.

The Blackwater mine site is located within the traditional territories of Lhoosk'uz Dené Nation (LDN), Ulkatcho First Nation (UFN), Skin Tyee Nation and Tsilhqot'in Nation. The Kluskus and Kluskus-Ootsa Forest Service Roads (FSR) and Project TL cross the traditional territories of Nadleh Whut'en First Nation (NWFN), Saik'uz First Nation (SFN), and Stellat'en First Nation (StFN; collectively, the Carrier Sekani First Nations) as well as the traditional territories of the Nazko First Nation (NFN), Nee Tahi Buhn Band, Cheslatta Carrier Nation and Yekooche First Nation (EAO 2019a and 2019b).

Additional details on transmission line components and activities are presented in Section 3.2 of the Transmission Line Initial Project Description (TL IPD; BW Gold 2022).

1.1 Permitting

A number of provincial permits and authorizations will be required to construct and operate the TL. The primary permits include the following: Statutory Right-of-Way (ROW) and interim Licence of Occupation (LOO) for Crown Land, an Occupancy Licence to Cut (OLTC), Road and Special Use Permits (for Roads) Road Use Permits, and Junction Permits for critical road intersections. This management plan is provided in support of the LOO permit application.

Parameters selected for the TL AQDMP includes some of the same parameters included in the mining assessment:

- Fugitive dust including Total Suspended Particulates (TSP), particulate matter $(PM)_{10}$, fine particulate matter ($PM_{2.5}$); and
- Criteria air contaminants including sulphur dioxide (SO_2) nitrogen dioxide (NO_X) and carbon monoxide (CO).

Federal and provincial legislation that may be relevant to air quality and dust control include:

- *Canadian Environmental Protection Act, 1999*;
- *Forest & Range Practices Act;*
- Environmental Emergency Regulations;
- *Transportation of Dangerous Goods Act;*
- Transportation of Dangerous Goods Regulations;
- *Environmental Management Act 2003;*
- Environmental Code of Practice for Metal Mines 2009;
- *Hazardous Products Act* and Hazardous Products Regulations;
- *Hazardous Materials Information Review Act*;
- *Mines Act;*
- Health, Safety and Reclamation Code for Mines in British Columbia (2021);
- Chief Inspector's Directive – Hydrocarbon Spills, May 15, 2015;
- Workplace Hazardous Materials Information System (WHMIS) Regulation (Mines); and
- Environmental Code of Practice for Aboveground Storage Tank Systems Containing Petroleum Products.

The TL AQDMP and any amendments thereto, must be implemented to the satisfaction of a QP throughout Construction, Operations, and Closure and to the satisfaction of the EAO. Guidance documents related to air quality and fugitive dust management include:

- The Guideline for the Selection of Valued Components and Assessment of Potential Effects (BC EAO, 2013);
- British Columbia Ambient Air Quality Objectives (2021);
- Canadian Ambient Air Quality Standards (2020);
- *Developing a Fugitive Dust Management Plan for Industrial Projects* (May 2018);
- Implementation Guidelines for the Environmental Emergency Regulations (2011);

- On-Road Vehicle and Engine Emission Regulations (SOR/2003-2), Canada Gazette Part II, Vol. 137, No. 1;
- Off-Road Compression-Ignition Engine Emission Regulations (SOR/2005-32);
- US EPA; 40 CFR Part 9, 86 and 89 Control of Emissions of Air Pollution from Non-road Diesel Engines; Final Rule;
- Heavy-duty Vehicle and Engine Greenhouse Gas Emission Regulations (SOR/2013-24);
- British Columbia Field Sampling Manual: 2020 – Part B Air and Air Emissions Testing; and
- BC MOE 2016. Water and Air Baseline Monitoring Guidance Document for Mine Proponents and Operators.

Consistent with the Guidance (EMPR & ENV, 2018), the TL AQDMP does not address occupational health and safety requirements pertaining to workplace exposures to dust. Worker health and safety at Project sites is regulated by the Health, Safety and Reclamation Code for Mines in BC (EMLI, 2021).

1.2 Purpose and Objectives

The purpose of the TL AQDMP is to minimize the effects of the TL project's air emissions on human health and the natural environment. The TL AQDMP has adopted an air quality and emissions management system that recognizes and responds to the issue of gaseous and particulate emissions at all stages of the TL project, from planning, construction, operations, and to closure. The TL AQDMP outlines mitigation measures and best management practices (BMPs), monitoring, adaptive management, and a follow-up monitoring program. The Plan identifies dust-emitting sources, dust mitigation measures, and contingency measures in the event that primary control measures are not effectively controlling dust emissions.

The objectives of the TL AQDMP are to:

- Identify TL project activities which may impact emissions;
- Establish measurable goals and targets to air quality and emissions management;
- Protect the air quality through the development of environmental mitigation measures associated with construction and operations activities;
- Address air quality related environmental aspects in the planning, design, and execution phases of the TL project;
- Implement BMPs for air emissions;
- Describe the management practices expected for all employees, contractors, and subcontractors related to the air quality and emissions management; and
- Identify the process for recording, reporting, and correcting non-compliance related to the TL AQDMP.

The TL AQDMP is linked to the Transmission Line Integrated Vegetation Management Plan (TLIVMP); Transmission Line Reclamation and Closure Plan (TLRCP); Transmission Line Surface Erosion Prevention and Sediment Control Plan (TLSEPSCP); Transmission Line Construction Environmental Management Plan (TL CEMP); Transmission Line Wildfire Management Plan (TL WMP); and the Wildlife Mitigation and Management Plan (WMMP).

1.3 Scope

The scope of this TL AQDMP includes all TL construction activities and is a standalone document. The scope of the TL AQDMP is to enhance existing policies and procedures for all relevant stakeholders. The TL AQDMP is supplementary to, and does not replace or override, any existing Government legislation, and associated Regulations.

2.0 Roles and Responsibilities

BW Gold has the obligation of ensuring that all commitments are met and that all relevant obligations are made known to mine personnel and site contractors during all phases of the mine life. A clear understanding of the roles, responsibilities, and level of authority that employees and contractors have when working at the mine site is essential to meet Environmental Management System (EMS) objectives. The BW Gold Construction Manager (CM) and Environmental Manager (EM) is responsible for communicating with EMBC, and for notifying the Ministry of Environment and Climate Change Strategy (ENV) depending on the environmental impact.

Table 2-1 provides an overview of general environmental management responsibilities during all phases of the mine life for key positions that will be involved in environmental management. This table also includes roles and responsibilities for the TL AQDMP. Other positions not specifically listed in Table 2-1 but who will provide supporting roles include independent environmental monitors, Independent Tailings Review Board, TSF qualified person, and other qualified persons and qualified professionals.

Table 2-1: Blackwater Roles and Responsibilities

Position	Responsibility
Chief Executive Officer (CEO)	The CEO is responsible for overall Project governance. Reports to the Board.
Chief Operating Officer (COO)	The COO is responsible for engineering and Project development and coordinates with the Mine Manager to ensure overall Project objectives are being managed. Reports to CEO.
Vice President (VP) Environment & Social Responsibility	The VP is responsible for championing the Environmental Policy Statement and EMS, establishing environmental performance targets, and overseeing permitting. Reports to COO.
General Manager (GM) – Development	The GM is responsible for managing project permitting, the Project's administration services and external entities, and delivering systems and programs that ensure Artemis's values are embraced and supported: Putting People First, Outstanding Corporate Citizenship, High Performance Culture, Rigorous Project Management and Financial Discipline. Reports to COO.
Mine Manager	The Mine Manager, as defined in the Mines Act, has overall responsibility for mine operations, including the health and safety of workers and the public, Environmental Management System (EMS) implementation, overall environmental performance and protection, and permit compliance. The Mine Manager may delegate their responsibilities to qualified personnel. Reports to GM.
Construction Manager (CM)	The CM is accountable for ensuring environmental and regulatory commitments and obligations are being met during the construction phase, including TL AQDMP implementation and compliance. Reports to GM.

Position	Responsibility
Environmental Manager (EM)	The EM is responsible for the day-to-day management of the Project's environmental programs, compliance with environmental permits, and updating EMS and MPs. The EM or designate will be responsible for reporting non-compliance to the CM, and Engineering, Procurement, and Construction contractor (EPC), other contractors, the Company, and regulatory agencies, where required. If TARP triggers are observed, the EM is responsible for notifying the EAO, EMPR, NHA, Indigenous Groups, and the public. The notification will include both a technical report and a plain language summary of the technical report. Supports the CM with TL AQDMP implementation and compliance, and reports to Mine Manager.
Departmental Managers	Departmental Managers are responsible for implementation of the EMS relevant to their areas. Reports to Mine Manager.
Indigenous Relations Manager	Indigenous Relations Manager is responsible for Indigenous engagement throughout the life of mine. Also responsible for day-to-day management and communications with Indigenous groups. Reports to EM.
Community Relations Advisor	Community Relations Advisor is responsible for managing the Community Liaison Committee and Community Feedback Mechanism. Reports to Mine Manager.
Environmental Monitors	Environmental Monitors (includes Environmental Specialists and Technicians) are responsible for tracking and reporting on environmental permit obligations through field-based monitoring programs. Report to EM.
Aboriginal Monitors	Aboriginal Monitors are required by EAC #M19-01 Condition 17 and will be responsible for monitoring the Project's potential effects on Aboriginal interests. Aboriginal Monitors will be involved in adaptive management and follow-up monitoring programs.
Employees and Contractors	Employees and Contractors are trained and responsible for being aware of permit requirements specific to their roles and responsibilities, including the TL AQDMP. If fugitive dust concerns are raised in concern with the TL AQDMP, they shall report to their site supervisor who will relay to the EM and/or CM. Report to departmental managers.
Qualified Professionals and Qualified Persons	Qualified professionals and qualified persons will be retained to review objectives and conduct various aspects of environmental and social monitoring as specified in EMPs and social MPs.

BW Gold will employ a qualified person as an Environmental Manager (EM) who will ensure that throughout the Construction phase (including the construction of the TL), the EMS requirements are established, implemented, maintained, and that environmental performance is reported to management for review and action. The EM is responsible for retaining the services of qualified persons or qualified professionals with specific scientific or engineering expertise to provide direction and management advice in their areas of specialization. The EM will be supported by a staff of Environmental Monitors that will include Environmental Specialists and Technicians and a consulting team of subject matter experts in the fields of environmental science and engineering.

During the Construction phase, the Engineering, Procurement, and Construction (EPC) contractor and subcontractors, will report to the Construction Manager (CM). The EPC contractor will be responsible for ensuring that impacts are minimized, and environmental obligations are met during the Construction phase. For non- EPC contractors, who will perform some of the minor works on site, the same reporting structure, requirements, and responsibilities will be established as outlined above. BW Gold will maintain overall responsibility for management of the construction and operation of the mine site and will therefore be responsible for establishing employment and contract agreements, communicating environmental requirements, and conducting periodic reviews of performance against stated requirements.

The CM is accountable for ensuring that environmental and regulatory commitments/obligations are being met during the construction phase on site, including the TL AQDMP. The EM will be responsible for ensuring that construction activities are proceeding in accordance with the objectives of the EMS, associated MPs, and TL AQDMP. The EM or designate will be responsible for reporting non-compliance to the CM, EPC contractor, other contractors, the Company, and regulatory agencies, where required. The EM or designate will have the authority to stop any construction activity that is deemed to pose a risk to the environment; work will only proceed when the identified risk has been addressed and concerns rectified.

Environmental management during operation of the TL project will be integrated under the direction of the EM, who will liaise closely with Departmental Managers and will report directly to the Mine Manager. The EM will be supported by the VP of Environment and Social Responsibility in order to provide an effective and integrated approach to environmental management and ensure adherence to corporate environmental standards. The EM will be accountable for implementing the approved MPs (including TL AQDMP) and reviewing them periodically for effectiveness. Departmental Managers will be directly responsible for implementation of the EMS and MPs/standard operating procedures) relevant to their areas. It is expected that during operations of the TL project that the operations, inspection, and maintenance/repair of the TL will fall under the Mine Site Services Department, with some of the services being assigned to qualified consultants and contractors. All employees and contractors are responsible for daily implementation of the practices and policies contained in the EMS and TL AQDMP.

During closure and post-closure staffing levels will be reduced to align with the level of activity associated with these phases. Prior to initiating closure activities, BW Gold will revisit environmental and health and safety roles and responsibilities to ensure the site is adequately resourced to meet permit monitoring and reporting requirements. The Mine Manager will have overall responsibility for Closure and Post-closure activities.

Pursuant to Condition 19 of the EAC, BW Gold has established an Environmental Life of Mine Committee (ELoMC) to facilitate information sharing and provide advice on the development and operation of the Project, and the implementation of EAC conditions, in a coordinated and collaborative manner. Committee members include representatives of the EAO, Ulkatcho First Nation (UFN), Lhoosk'uz Dene Nation (LDN), Nadleh Whut'en First Nation (NWFN), Stellat'en First Nation (StFN), Saik'uz First Nation (SFN), Nazko First Nation (NFN), Ministry of Energy, Mines and Low Carbon Innovation (EMLI), ENV, and Ministry of Forests, Lands, Natural Resource Operations and Rural Development.

Pursuant to Condition 17 of the EAC, Aboriginal Group Monitor and Monitoring Plan, BW Gold will retain or provide funding to retain a monitor for each Aboriginal Group prior to commencing construction and through all phases of the mine life. The general scope of the monitor's activities will be related to monitoring for potential effects from the Project on the Aboriginal Group's Aboriginal interests.

The TL Engineering Procurement and Construction Management or Engineering, Procurement, and Construction contractor roles and responsibilities relating to environmental management, industrial and domestic waste management, and environmental protection are identified below in Table 2-2.

Table 2-2: Transmission Line Construction Contractor Roles and Responsibilities

Role	Responsibility
Contractor Construction Manager (CCM)	The Contractor Construction Manager (CCM) has ultimate responsibility for construction proceedings, including worker and public health and safety and environmental protection. The CCM will ensure the implementation of training programs as well as support the Blackwater Gold Environmental Policy. The CCM will ensure that adequate support and resources are made available for the implementation and maintenance of the Environmental Management System (EMS), including the TL AQDMP implementation and review. The CCM may, as needed, delegate their duties to Qualified Professional (QPs). Report to the BW Gold Construction Manager.
Contractor Construction Superintendents	The Contractor Construction Superintendents have an administrative responsibility and requirement to act upon the directions, guidance, and support of the Construction Manager. They are resources to the CCM, and have the following responsibilities: • Learning and following the TL AQDMP in relation to their work; • Support the implementation of the Blackwater Gold Environmental Policy; • Ensure that environmental matters are given consideration in pre-planning of construction activities, budgets, training, and operations; and • Ensure that workers under their supervision are made aware of known, or reasonably foreseeable, environmental aspects where they work.
Construction Employees, Contractors, and Subcontractors	• Employees have general responsibilities for environmental protection, which include: – Learning and following the TL AQDMP in relation to their work; – Supporting the Blackwater Gold Environmental Policy; – Supporting implementation of EMPs; – Cooperating with the Blackwater Environment Committee representative(s); – Learning and following environmental best practices and procedures relevant to their work; – Following instructions and directives given by supervisors; – Operating equipment in an environmentally responsible manner to avoid environmental impacts; – If training another worker, ensuring that they are properly completing all required tasks and responsibilities in accordance with environmental best practices procedures; – Reporting all environmental incidents immediately to their supervisor, who will expedite a response to address the incident; – Participating in mitigating or minimizing harm to the environment should an environmental incident occur; and – Asking for help or information when unsure how to perform a task without compromising social, cultural, archaeological, or environmental values.

3.0 Project Setting

3.1 Emissions and Physical Location Overview

The TL AQDMP addresses the new approximately 135 km overland transmission line (TL) that will connect the mine to the BC Hydro grid, as described in the Project Overview. There is an absence of heavy industrial air emission sources within the local and regional project areas that could add to the TL emissions aside from the mine itself. The TL activities determined to contribute to cumulative air quality effects are those associated with combustion emissions, unpaved roads, and material handling as these activities may generate air emission such as TPM, PM_{10}, $PM_{2.5}$, NO_X, and CO.

Of the listed general land uses below, mining exploration and forestry resource use are the activities that may have the largest non-TL cumulative effects contribution to air quality during TL construction. The other activities listed are not expected to create measurable changes in the air quality. Known general land uses within the region include:

- Protected areas and parks;
- Recreation/tourism use (e.g., all-terrain vehicle use);
- Forestry and timber resource use;
- Hunting/trapping/guide outfitting;
- Fishing and aquaculture;
- Agriculture and grazing;
- Range use;
- Mining, exploration, and mineral tenures;
- Land ownership and tenures;
- Recreational and commercial use of waterways;
- Groundwater resource use; and
- Surface water resource use.

Local residents and Indigenous groups and their members have expressed interest in the potential effects on air quality during TL construction and operations. These groups' comments during the engagement and consultation process have provided insights into traditional, ecological, and community knowledge, which is defined as a body of knowledge built up by a group of people through generations of living in close contact with nature. This includes unique knowledge about the local environment, how it functions, and its characteristic ecological relationships. No specific sensitive environmental receptors specific to the TL are identified at this time to be monitored. Mine sensitive receptors include the Project operations camp, and Tatelkus Lake Indian Reserve 28 (tatelkus Lake 28), as indicated in the Project Air Quality and Fugitive Dust Management Plan (AQDMP)

During a meeting with the Nazko First Nation (NFN), members emphasized that clean air, including being free of dust, is important to ensure medicinal plants and waters are clean to eat and drink. Lhoosk'uz Dene Nation (LDN) and Saikuz First Nation (SFN) elders also noted their concerns about the potential effects of the Project, such as the impact of dust and emissions on air quality.

4.0 Identification of Potential Sources or Activities which Generate Fugitive Dust

4.1 Source List Review

Fugitive dust will be generated from construction activities including material handling and resuspended road dust. Other particulate sources include diesel emissions and industrial burning.

TL project construction is anticipated to start in late 2022. Air quality and fugitive dust management is critical for safety, and for preventing potential effects to local and regional wildlife populations and habitats. The Project has adopted an air quality and emissions management system that recognizes and responds to the issue of gaseous and particulate emissions at all stages of the Project, from planning, construction, operation, closure, and post closure. This includes systematically identifying sources, predicting contaminants levels, evaluating potential effects on human health and the environment, and incorporating prediction and control measures.

During construction and operations phases of the TL, many of the emissions will result from diesel fuelled internal combustion engines, industrial burning, and fugitive dust. Emitted substances will be dispersed into the surrounding air and concentration levels will depend on emission rates, release characteristics, meteorological parameters, and topography. Due to the physical length of the TL, meteorological parameters and topography are expected to vary. Diesel emission levels depend on engine design parameters, emissions controls, equipment maintenance, and the power rating, and do not depend on TL project phase or activity. Industrial burning of debris piles is addressed in the TL WMP, along with inspections and maintenance of fire equipment. Timing of burning activities depends on local burning bans. Fugitive dust is the primary source of TL project air emissions. Potential dust sources include material handling/rehandling, construction and use of unpaved roads, blasting, compaction, drilling, grading, material loading and unloading.

Air quality and emissions management defines the programs and procedures that have been, or will be, developed for ensuring that all air quality risks are adequately addressed, prevented, and controlled for all phases of the TL project including design, construction, operations, and decommissioning/closure. This includes the following activities:

- Timber harvesting;
- Road construction, including bridges;
- Material handling;
- Equipment selection (vehicles, drilling and process equipment, etc.);
- Site clearing;
- Vehicle traffic and use of heavy equipment (paved and unpaved roads); and
- Blasting.

In order to quantify cumulative air quality effects, it is necessary to obtain spatially and temporally specific activity information so that emissions can be estimated and assigned to a specific geographic area. By their nature, forestry resource use and mining exploration are activities that move continuously and have a relatively low level of activity in any specific location over a significant period of time. This would be the same case for TL construction. Therefore, the TL project air quality effects are expected to be lower than an activity that remains in one location for a longer period of time.

4.2 Source List Update Procedure

The TL AQDMP's source list shall be reviewed as needed to reflect current site conditions. If fugitive dust sources are removed or new sources are added/observed on site by employees, contractors, EM, or CM, the TL AQDMP will be updated by the EM. At minimum, the source list will be reviewed annually by the EM.

4.3 Fugitive Dust Source List

Table 4-1 below will be updated to list and identify fugitive dust sources during all phases of TL construction.

Table 4-2 provides an overview of the TL project activities anticipated to emit fugitive dust by TL project phase.

Table 4-1: TL Fugitive Dust Source List

Unique ID	Location	Potential Source	Dust Generating Material	Generation Conditions	Additional Comments
Stockpile Area 1 (SP-001)	Designated stockpile area	Wind erosion, material handling	Fine aggregate 0.05mm – 1mm, 1mm – 2 mm	Windy, dry, or hot days, material handling operations	Location will change as TL construction moves along 135 km stretch.
Unpaved Road 1 (UR-001)	Main activity area for transport vehicles	Vehicle traffic	Road dust, aggregate, diesel emissions	Windy, dry, or hot days, material handling operations, vehicle equipment condition, number of vehicle passes, vehicle weight	Location will change as TL construction moves along 135 km stretch.
Blasting Zone 1 (BZ-001)	Blasting zones (if required)	Blasting	Soil/rock composition of blast site	Windy, dry, or hot days, blast size, material handling operations	Location will change as TL construction moves along 135 km stretch.
Staging Area 1 (ST-001)	Staging area	Vehicle traffic	Road dust, aggregate, diesel emissions	Windy, dry, or hot days, vehicle traffic, vehicle equipment condition, number of vehicle passes, vehicle weight	Location will change as TL construction moves along 135 km stretch.
Drilling Area 1 (DR-001)	Drilling area	Drilling	Soil/rock composition of drilling site	Windy, dry, or hot days, drilling duration, material handling operations	Location will change as TL construction moves along 135 km stretch.

Unique ID	Location	Potential Source	Dust Generating Material	Generation Conditions	Additional Comments
Road Construction 1 (RC-001)	Incomplete road construction area	Road construction operations, material handling	Road dust, aggregate, diesel emissions	Windy, dry, or hot days, material handling operations, vehicle equipment condition, number of vehicle passes, vehicle weight	Location will change as TL construction moves along 135 km stretch.
Borrow Pit 1 (BP-001)	Designated borrow pit area	Material handling	Aggregates, soil	Windy, dry, or hot days, vehicle equipment condition, material handling operations	Location will change as TL construction moves along 135 km stretch.
Screening Area 1 (SC-001)	Designated screening area	Screening, material handling	Aggregate	Windy, dry, or hot days, material handling operations	Location will change as TL construction moves along 135 km stretch.
Clearing Area 1 (CL-001)	Clearing area	Clearing Equipment, material handling	Sawdust, upturned soil	Windy, dry, or hot days, clearing duration, vehicle equipment condition, material handling operations	Location will change as TL construction moves along 135 km stretch.
Transmission Line Construction 1 (TL001)	Incomplete transmission line construction area	Material Handling	Aggregate, soil	Windy, dry, or hot days, vehicle equipment condition, material handling operations	Location will change as TL construction moves along 135 km stretch.
Industrial Burning Area (IB-001)	Designated pile burning area	Material candling, burn piles	Wood combustion	Refer to TL WMP. Schedule varies on conditions.	Location will change as TL construction moves along 135 km stretch.

Table 4-2: TL Activities Resulting in Fugitive Dust by Phase

Construction	Operations	Closure	Post-closure
• Land clearing and earthworks for all on-site components • Construction and use of unpaved access roads • Surface blasting and drilling • Construction of TL project roads • Construction of the transmission line • stockpiles, borrow areas, and laydown areas • Aggregate extraction from borrow pits • Borrow and aggregate screening areas • Industrial burning	• Use of unpaved surfaces including roads • Road maintenance • Progressive reclamation, restoration activities	• Use of unpaved roads • Road maintenance • Progressive reclamation, restoration activities	• Use of unpaved roads • Road maintenance

5.0 Identification of Potential Effects of Fugitive Dust

The greatest fugitive dust generation will occur during the TL project construction phase. Fugitive dust emitted from construction operations may have potential adverse effects on human health and pose environmental risks both on and off site.

The United States Environmental Protection Agency (US EPA, 2021) states that “the size of particles is directly linked to their potential for causing health problems. Small particles less than 10 micrometers in diameter pose the greatest problems, because they can get deep into your lungs, and some may even get into your bloodstream.” Potential environmental effects include visibility impairment, environmental damage, and materials damage (US EPA, 2021). Potential effects listed by the US EPA are summarized in the Table 5-1. The impact depends on fugitive dust concentration, particulate sizes, and location of operations and receptors.

Table 5-1: Potential Health and Environmental Effects of Particulate Matter

Potential Health Effects	Potential Environmental Effects
• premature death in people with heart or lung disease • nonfatal heart attacks • irregular heartbeat • aggravated asthma • decreased lung function • increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing.	• reduced visibility (haze) from fine particulates • making lakes and streams acidic • changing the nutrient balance in coastal waters and large river basins • depleting the nutrients in soil • damaging sensitive forests and farm crops • affecting the diversity of ecosystems • contributing to acid rain effects • staining and damaging stone and other materials, including culturally important objects such as statues and monuments

(US EPA, 2021)

6.0 Air Quality and Fugitive Dust Management

Particulate and gaseous contaminant emissions management will be applied throughout all phases of the TL project lifecycle, including construction, operations, and decommissioning/closure. Most fugitive dust emissions occur from vehicle travel on unpaved roadways (e.g., access roads) resuspending particulate matter (PM) into the air, and from materials handling equipment (e.g., bulldozers, graders, trucking). Other mitigation measures for $PM_{2.5}$, SO_2, NO_2, and CO from diesel fuelled equipment relate to engine emission controls, as those substances are generated as combustion by-products.

6.1 Best Management Practices (BMP)

The following procedures for dust management will apply to all phases of the TL project. These mitigation and preventative measures will be monitored and reviewed for continuous improvement opportunities as the TL project progresses. These procedures may include, but are not limited to, the following:

- Minimize clearing of vegetation for construction areas to limit surface disturbance;
- Minimize drop heights for material handling, loading, and unloading;
- Progressive reclamation of disturbed areas will occur as soon as feasible;
- Maintenance of unpaved roads which will be regularly compacted and kept in good repair;
- Use of coarse aggregate for road surfaces with low silt content;
- Vehicles will be driven at designated speeds on project roads;
- Roadways and stockpiles will be wetted as needed to minimize dust from grading, vehicle traffic, and wind erosion when ambient air temperatures permit;
- Water or spray quantities used will be documented;
- Reporting incidents involving excessive dust on site;
- Weather preparedness; and
- Employee training.

6.2 Site Specific Mitigation Measures

To minimize gaseous emissions from diesel combustion on site, the EM will ensure that all equipment and vehicles will be maintained to ensure that they are operating as per manufacturers specifications. This may include equipment and vehicles with Canadian Tier emissions standards. All off-road vehicles will use ultra-low sulphur diesel (15 parts per million [ppm] maximum), as required under Canadian emissions regulations. Smoke emissions from industrial burning are also expected to occur. The EM will ensure that the TL WMP is followed and that burning times and emissions follow OBSCR requirements to minimize impacts.

Most TL project fugitive dust emissions are expected to occur from vehicle travel on unpaved roads (e.g., access roads) and from material handling (bulldozers, graders, trucking). This will be mitigated using a combination of preventative strategies and mitigation controls shown in Table 6-1. The EM and CM will be responsible to ensure that strategies and controls are implemented and followed as required. Contractors and employees will require training to identify when additional mitigation measures are required.

Table 6-1: Fugitive Dust Mitigation Measures

Unique ID	Mitigation Measures
Stockpile Area 1 (SP-001)	• Minimize stockpile area as much as possible. • Locate stockpile areas where wind speed is minimal or blocked. • When practicable in an active work zone, water stockpiles on dry windy (average wind speed above 10 m/s) days above freezing temperatures. • Minimize material drop heights where possible when adding material to stockpiles. • Cover stockpiles if abandoned for a long period of time. • When unloading material, piles should form low piles that extend horizontally, where practical. • Employees involved in material handling or management will receive training by a qualified person on the importance of minimizing material drop height (from excavator to truck, conveyor to stockpile, etc.) to reduce fugitive dust. • Ensure a supply of water and available transportation vehicles, weather depending.
Unpaved Road 1 (UR-001)	• Limit vehicle speed on site to a maximum of 50 km/hr. • Minimize unpaved road distances for vehicle travel where possible. • Road surfaces will be constructed of coarse aggregate with low silt content where additional road surfacing material is required. • Water or apply calcium chloride a to suppress resuspension of particulates on dry and/or high activity days. • Further reduce speed limits on Project-owned roads if weather conditions cause fugitive dust emissions and dust cannot be controlled by watering. • Ensure a supply of water and available transportation vehicles, weather depending (non-freezing conditions).
Blasting Zone 1 (BZ-001)	• Schedule blasting for favourable moist conditions where possible • Use blasting mats, when possible, where high particulate suspension is expected • Use weather forecasts to inform blasting plan (e.g., wind forecast, lightning and thunder warnings). • Immediately prior to blasting, the “Blast Engineer / Blast Coordinator” must check weather conditions to determine if the blast is likely to cause any dust or fume impacts on the surrounding environment. • Where dust or fume impacts on employees and environment cannot be avoided, blasting must be postponed until weather conditions improve. The CM will decide when to postpone blasting.
Staging Area 1 (ST-001)	• Minimize staging area as much as possible • Locating staging areas where wind speed is minimal or blocked
Drilling Area 1 (DR-001)	• Schedule drilling for favourable moist conditions where possible • Use wet drilling during very dry conditions (less than 0.25 mm/day of precipitation in the previous week)

Unique ID	Mitigation Measures
Road Construction 1 (RC-001)	• Limit vehicle speed on site to a maximum of 50 km/hr. • Minimize unpaved road distances for vehicle travel where possible. • Watering or application of calcium chloride a to suppress resuspension of particulates on dry and/or high activity days. • Minimize material drop heights where possible. • Road surfaces will be constructed of coarse aggregate with low silt content where additional road surfacing material is required.
Borrow Pit 1 (BP-001)	• Minimize pit area as much as possible. • Apply water when temperatures are above freezing and there are very dry conditions (less than 0.25 mm/day of precipitation in the previous week). • Employees involved in material handling or management will receive training by a qualified person on the importance of minimizing material drop height (from excavator to truck, conveyor to stockpile, etc.) to reduce fugitive dust. • Develop new borrow areas only when and as required (to be determined by the Construction Manager). • Once suitable materials have been salvaged, place topsoil on disturbed areas and seed using a native seed mix to re-establish vegetative cover as soon as reasonably possible. • When unloading material, piles should form low piles that extend horizontally. • Minimize drop height from loaders and excavators (shovels) to the truck.
Screening Area 1 (SC-001)	• Minimize material drop heights where possible. • Equip the screener circuits with onboard water dosing during times of the year above freezing temperatures or other dust suppression measures (e.g., reagents) systems. • Apply water when temperatures are above freezing and there are very dry conditions (less than 0.25 mm/day of precipitation in the previous week). • Check cover for tears, holes, and cracks on a monthly basis. Repair as soon as possible.
Clearing Area 1 (CL-001)	• Minimize clearing area as much as possible. • Limit vehicle speed on site to a maximum of 50 km/hr. • Minimize material drop heights where possible.
Transmission Line Construction 1 (TL001)	• Minimize material drop heights where possible.
Industrial Burning Area (IB-001)	• Refer to TL WMP for combustion schedule and mitigation requirements.

7.0 Plan Implementation

The TL AQDMP is a living document that will evolve over time in response to monitoring results and regulatory changes. The plan incorporates adaptive management as follows:

- **Plan**
  - Source identification and characterization;
  - Qualitative visual assessment of particulate emissions;
  - Identification of contributing factors that favour dust generation; and
  - Description of fugitive dust control for each source.
- **Do**
  - Schedule for implementation and operation of control measures;
  - Description of maintenance and record keeping procedures for control and monitoring equipment; and
  - Training procedures.
- **Monitor**
  - Inspection and maintenance procedures; and
  - Record keeping to verify ongoing implementation of plan.
- **Adjust**
  - Review of effectiveness of control measures; and
  - Update the plan as required.

7.1 Training

Employees and contractors will receive training in fugitive dust management and air quality awareness on their arrival on site through an environmental on-boarding training session and prior to the start of work as part of the Site Orientation. The purpose of this training is to provide all site personnel with a basic level of environmental awareness and an understanding of their obligations regarding compliance with regulatory requirements, commitments, and best practices.

All those responsible for the management, implementation, and operation of any aspect of this plan will be competent for their role. All staff will attend site orientation where the contents, requirements and commitments made in this plan will be communicated. Staff will be adequately trained for their roles to implement this plan and will be aware of BW Gold's commitments to uphold this plan. Training will cover safety and measures to mitigate effects on ecosystems, soils, and vegetation and to emphasize the importance of following and implementing the TL AQDMP. Targeted training related to dust management will be provided to individuals and/or groups of workers assuming a specific authority or responsibility related to air quality. BW Gold will regularly review and update the training and awareness plan based on changes in training needs and regulatory requirements.

Employee education and outreach on access management will be supported by:

- Development and delivery of educational material to site personnel; and
- Maintaining updated information related to access management at Blackwater in a location available to employees.

Prior to the commencement of work on the TL project, all personnel will:

- Review and be aware of the requirements of the TL AQDMP;
- Be aware of their legislative requirements, specifically including but not limited to:
  - WHMIS, Safety Data Sheets, Transportation of Dangerous Goods, Occupational Health and Safety, and relevant British Columbia Air Quality Objectives;
- Be trained in and be aware of:
  - Safety and emergency response procedures; and
  - Evacuation procedures.

Contractors and subcontractors are required to hold regular documented safety meetings at a frequency agreed to by Proponent project management. Safety meetings must focus discussion on hazards and risks specific to the work being performed and recent incidents within the workplace. Additionally, as a minimum, discussions will include past meeting concerns, findings from workplace inspections, and reported near misses. These meetings must also include air quality and fugitive dust risks and incidents. If a potential dust concern is observed, it shall be reported to the EM.

Proponent management will attend Contractor's safety meeting to reinforce their commitment to safety, provide opportunities for direct contact with site personnel, and monitor that the quality of meetings is adequate.

These meetings include but are not limited to:

- Daily Crew Talks;
- Daily Safe Act Observations (SAOs) by Supervisors;
- Daily Risk Assessment Inspection of Work Area;
- Weekly Management Meetings; and
- Monthly Management Meetings.

7.2 Monitoring and Maintenance

The purpose of this monitoring component is to document the efficacy of the mitigation measures implemented and to meet regulatory requirements at the TL project site. The Plan will ensure that project activities are conducted according to applicable legislation and the conditions of all project approvals. Monitoring will be carried out in order to meet permit and reporting requirements. It will also be used as a tool to determine the efficacy of the mitigation measures implemented.

The TL AQDMP monitoring program largely relies on qualitative visible observations on site, while paying attention to weather conditions as shown in the Trigger Action Response Plan (TARP). Depending on observed conditions, TARP may trigger reporting of on-site emissions for mitigative actions and/or review of the TL AQDMP. TL personnel will be trained to be observant for dust related concerns which may arise. These observations, together with meteorological conditions and mitigation efforts taken to deal with a problem, will be recorded and included in monthly and annual reports. Visual monitoring will focus on areas where there are active surface earthworks, unpaved roads and overburden and soil stockpiles. Visual monitoring will occur on a daily basis at all locations where fugitive dust generation is occurring. At minimum, monitoring report summaries will be reviewed annually to determine any emissions trends and to revise operating practices or monitoring protocols as required.

The Proponent will collaborate as required with other government-sponsored monitoring programs as required to measure the effects of air quality occurring in the TL project area during the construction and operations phases of the TL project. The monitoring program will be submitted by the EM for review to the appropriate regulatory authorities for comment before construction/operations begins.

7.3 Trigger Action Response Plan (TARP)

The Trigger Action Response Plan (TARP) is intended to provide an early-warning system such that when defined action levels are triggered there is sufficient time to prevent irreversible adverse environmental and health effects. Workers on site shall assess daily weather conditions and make continuous visual observations on-site to determine which TARP triggers and actions/responses are required (Table 7-1). Site conditions and TARP level of alert shall be recorded by site supervisors in an observation logbook daily. The CM will summarize the recorded observations and report monthly to BW Gold. The EM and CM are responsible for ensuring that TARP is implemented, followed, and up to date. If there is an air quality advisory issued by ENV that affects the region where the mine is located, the EM will determine if an adjustment to a higher alert level described in Table 7-1 is required to further mitigate dust emissions.

Table 7-1: On-site Trigger Action Response Plan (TARP)

Component	Location	Level	Trigger	Management Response
Fugitive Dust	Unpaved Roads	None	• Dust plume less than half the height of a truck tire.	• No action. Continue work in accordance with site management procedures.
		Low	• Dust plume less than half the size of a truck for any period of time up to 30 minutes.	• Limited watering of high traffic areas. • Repeat visual inspection every 2 hours depending on weather.
		Medium	• Dust plume same size as a truck extending beyond local areas for periods longer than half a day.	• Continuous watering of high traffic areas until dust plume subsides. • Speed limit restrictions in high traffic areas.
		High	• Dust plume greater than the size of a truck for periods longer than 1 day, or when dust plumes extend beyond the active construction area.	• Increase frequency of watering and if not successful examine longer use of alternative dust suppressants (e.g., calcium or magnesium chloride, lignin compounds, environmentally friendly oils, or clay additives). • Speed limit restrictions may be required if dust cannot be controlled by watering. • Closure of certain routes may be required if dust cannot be controlled by watering or speed restrictions. • Reassessment TL AQDMP may be required.
	Surface earthworks, staging, clearing, blasting, drilling	None	• Minor localized dust during construction and normal operations.	• No action. Continue work in accordance with site management procedures.
		Low	• Visible dust plumes rising over 2 m above the active construction area for longer than 30 minutes.	• Minimize material movement in areas with active construction or operation and heavy equipment use. • Limit timing of blasting/drilling so not concurrent with other high dust generating activities. • Minimize drop heights for material handling.

Component	Location	Level	Trigger	Management Response
		Medium	• Triggers per level 1 but with dust plume extending beyond local area for periods longer than half a day.	• Application of water to exposed construction area (if this is a source). • Limit timing of blasting/drilling for more favourable weather conditions.
		High	• Extensive areas of dust generation with large dust plumes for periods longer than 1 day or when dust plumes extend beyond the active construction area.	• Increase frequency of watering and if not successful apply gravel to exposed construction area (if this is a source). • Investigate long term solutions if dust plumes persist. • Reassessment TL AQDMP may be required.
	Stockpiles	None	• Minor localized dust during construction and normal operations.	• No action. Continue work in accordance with site management procedures.
		Low	• Visible dust plumes rising over 2 m above the ground for longer than 30 minutes.	• Turn on spray bar sprinklers or apply other water application where applicable. • During periods where temperatures are below freezing add reagents to control dust.
		Medium	• Triggers per level 1 but with dust plume extending beyond local area for periods longer than half a day.	• Increase the rate of water application using spray bar sprinklers. • During periods where temperatures are below freezing, add reagents to control dust.
		High	• Extensive areas of dust generation with large dust plumes for periods longer than 1 day or when dust plumes extend beyond the active construction area.	• Examine the possibility of re-engineering the spray bar sprinklers, or reassessment of water application to provide more effective water coverage. • Reassessment TL AQDMP may be required.
	Material handling,	None	• Minor localized dust during construction and normal operations.	• No action. Continue work in accordance with site management procedures.

Component	Location	Level	Trigger	Management Response
	transfer locations, screening	Low	• Visible dust plumes rising over 2 m above the ground for longer than 30 minutes.	• Turn on spray bar sprinklers or apply other water application where applicable. • During periods where temperatures are below freezing add reagents to control dust.
		Medium	• Triggers per level 1 but with dust plume extending beyond local area for periods longer than half a day.	• Increase the rate of water application. • During periods where temperatures are below freezing, add reagents to control dust.
		High	• Extensive areas of dust generation with large dust plumes for periods longer than 1 day or when dust plumes extend beyond the active construction area.	• Examine the possibility of re-engineering the spray bar sprinklers, or reassessment of water application to provide more effective water coverage. • Reassessment TL AQDMP may be required.

7.4 Record Keeping

A copy of the following documents will be kept on hand and available on site:

- Transmission Line Air Quality and Fugitive Dust Management Plan;
- Transmission Line Industrial and Domestic Waste Management Plan;
- Transmission Line Fuel Management and Spill Control Management Plan; and
- Transmission Line Emergency Response Plan.

Records of all updates to these plans and audits performed to determine the adequacy of the plan must be stored with the plan for the entirety of the Transmission Line construction. If a Level 3 Alert is triggered by TARP, a record of the incident submitted to the CM and EM must include:

- Date, time, and location of dust event;
- Managers or people involved/reported to;
- Triggers observed and potential activity/activities contributing to the event; and
- Record of any immediate actions taken.

For a Level 3 Alert the CM and EM shall keep a record of:

- Dates and times of received and distributed documents;
- Responses and actions taken to address submitted incidents; and
- Records of the EM or CM follow ups with individuals involved to find out where improvements to the plan or training are required.

The EM will be responsible for ensuring dust events are logged, including details of the on-site activities, meteorological conditions, and the management actions taken. Records will be maintained for public complaints and dust visual observations.

8.0 Adaptive Management

The TL AQDMP is a “living” document and any plan revisions will be made in accordance with the plan this is appended to (Condition 20 – Air Quality and Fugitive Dust Management Plan) . The review will evaluate the effectiveness of the TL air quality and fugitive dust management. Performance metrics that will result in adaptive management are:

- Non-compliance with this plan;
- Measure of mitigation success;
- Response time;
- Number of un-reported events;
- Number of reported events;
- Timely completion of maintenance and inspections;
- Completion of required training; and
- Regulatory non-compliance orders associated with plan.

9.0 Reporting

Observations related to air quality and fugitive dust management will be:

- Reported by construction staff to their supervisors;
- Documented in an Observation Logbook; and
- Reported monthly by the Construction Manger to BW Gold on the content of the Observation Logbook.

All incidents of concern with air quality, fugitive dust emissions, along with spills, accidents, or observed instances of odour and/or petroleum product sheen in a watercourse will immediately be reported to the Construction Manager and the BW Gold EM regardless of quantity or location. The BW Gold EM is responsible for any required reporting to outside agencies. If TARP triggers are observed, the EM is responsible for notifying the EAO, EMPR, NHA, Indigenous Groups, and the public. The notifications to the EAO, EMPR, NHA, Indigenous Groups, and the public will include both a technical report and a plain language summary of the technical report.

Incidents related to air quality will be reported. Incidents reported on will also include any air quality complaints. Significant events will trigger an incident investigation (including a root cause analysis). Investigations will be done by senior staff from relevant Managers. Remedial action may involve:

- Additional training for personnel;
- Enhanced equipment maintenance or inspection program;
- Additional preventative infrastructure (containment berms, oil/water separators), etc.; and
- Review and/or revision of the TL AQDMP.

Annual reports generated for submission to regulatory agencies, First Nations, the public, and TARP reporting will include:

- Confirmation that the TL AQDMP is being implemented as written;
- The monitoring results;
- The effectiveness of mitigation measures;
- The number of dusting events that occurred;
- Any complaints received and the actions taken to address complaints; and,
- Any deficiencies identified in the TL AQDMP and corrective actions taken.

10.0 Qualified Professionals

This management plan has been prepared and reviewed by the following qualified professionals:

Prepared by:

Craig Vatcher, CET, B. Tech., EP
Triton Environmental Consultants

Nadine de Bruyn, M.A.Sc., EPt
Triton Environmental Consultants

Reviewed by:

David Watt, R.P.F.
Project Development Manager
Allnorth

11.0 References

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APPENDIX B 2023 Meteorological Monitoring Program Review

Knight Piésold CONSULTING

Management System Certified By: bsi ISO 9001 Quality Management Systems CERTIFIED FS 64925 | ISO 14001 Environmental Management CERTIFIED EMS 550121 | ISO 45001 Occupational Health and Safety Management CERTIFIED OHS 550122

March 14, 2024

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Mr. Alexandra Gresiuk
Regulatory and Permitting Specialist
BW Gold Ltd.
595 Burrard Street, Suite 3083
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Canada

Dear Alexandra,

RE: 2023 Meteorological Monitoring Program Review

BW Gold Ltd. (BW Gold), a wholly owned subsidiary of Artemis Gold Inc. (Artemis), is developing the Blackwater Mine (the Blackwater Gold Mine; the Mine), which is located approximately 112 km southwest of Vanderhoof in central British Columbia (BC). BW Gold submitted a Joint Mines Act and Environmental Management Act Permits Application (the Joint Application) in November 2021, seeking approval to construct the Mine. To date, two permits have been issued under the provisions of the Environmental Management Act that require the continuous monitoring of meteorological parameters: Permit 110650 (the Air Discharge Permit) and Permit 110652 (the Effluent Discharge Permit); both permits were issued in May 2023. Knight Piésold Ltd. (KP) has provided technical support for the climate monitoring network for the Mine since early 2011.

Avison Management Services (Avison) has and continues to perform field visits related to these programs, with guidance provided by KP. To date, two climate monitoring stations have been commissioned at the Mine site: Blackwater Low and Blackwater High (the Stations). The maintenance procedures for the two stations follow the CSA R101:22 standards for Class 2 stations (CSA, 2022), as required by the Permits. Three snow course survey sites have also been established: SS1, SS2, and SS3. The snow sampling procedures follow the BC Snow Survey Sampling Guide (BC MOE, 1981).

1.0 MONITORING PROGRAM OVERVIEW

1.1 REGULATORY CONTEXT

This letter is intended to certify compliance with Section 5.2 and to satisfy the climatological portions of Section 6.1 h) and j) of the Air Discharge Permit (PE 110650). This letter is also intended to certify compliance with Section 4.5 and to satisfy Section 5.3.3 j) of the Effluent Discharge Permit (PE 110652). These permit conditions and the letter sections in which they are addressed are outlined in Table 1.1.

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TABLE 1.1

BW GOLD LTD.
BLACKWATER GOLD PROJECT

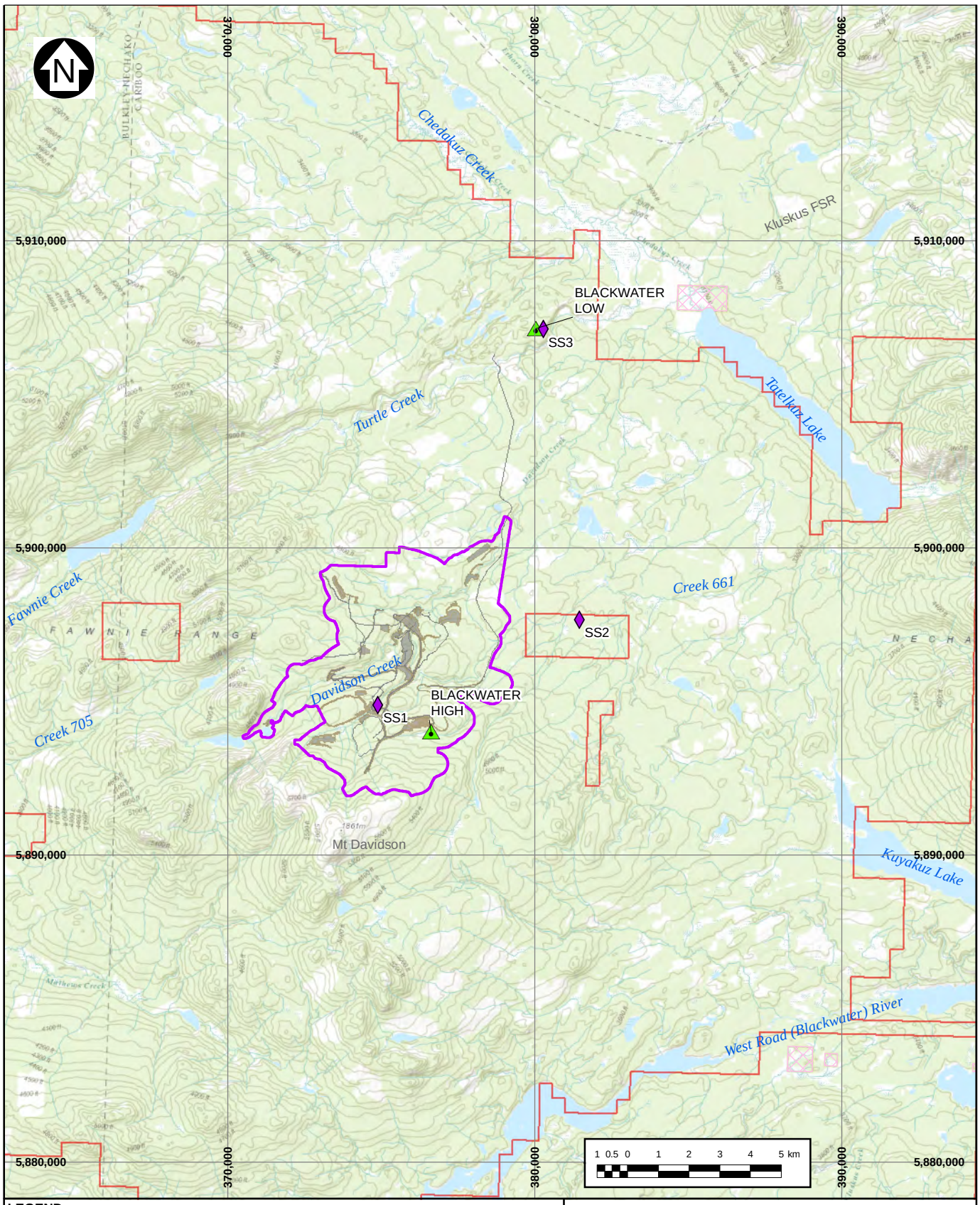
2023 METEOROLOGICAL MONITORING PROGRAM REVIEW
PERMIT CONCORDANCE SUMMARY

Print Mar-05-24 8:02:46

Permit	Permit Section	Reporting Requirement	Section Where Requirement is Addressed
PE-110650	6.1 h)	Data capture results including the following as per Section 5.1.4 and 5.2.3	
	i.	The percentage of days the each of the monitors were available for the calendar year	Table 2.1
	ii.	The percentage of days the each of the monitors were available per quarter	Table 2.1
	iii.	Confirmation that the each of the monitors were serviced in accordance with the BCFSM (for meteorological stantions)	Section 3.0
	iv.	Confirmation that the results have not been invalidated by a quality assurance failure of as the result of the **Province's data validation procedures** (for meteorological stations)	Section 2.1
	6.1 j)	Results of the audit conducted on the monitors referenced in Table 2, as required by Section 5.2.4, including any remedial action implemented in response to audit findings	Section 1.3
PE-110652	4.5.1	The permittee must establish and maintain hourly meteorological monitoring at Blackwater Low and Blackwater High Meteorological Stations for wind speed, wind direction, std deviation of wind direction, air temperature, precipitation, solar radiation, net radiation, and relative humidity	Table 2.1
	4.5.2	For each parameter listed in section 4.5.1, valid data is required to be measured and reported for a minimum of 90% of the hours available in each calendar quarter. Hourly data for a parameter is considered valid if: (a) The instrument is serviced according to the requirements of the most recent version of the "British Columbia Field Sampling Manual" and the manufacturer's instructions, and (b) The data have not been invalidated as the result of the Ministry's Data Validation procedures as described in the "British Columbia Field Sampling Manual" dated 2013, or most recent version	Table 2.1
	4.5.3	The permittee must establish and maintain two snow course monitoring stations at suitable locations, a high elevation site near the TSF and a low elevation site within or downstream of the mine footprint. Snow course surveys must be collected monthly from January to June (inclusive) each year. Snow course surveys must be conducted in accordance with the procedures described in the "Snow Survey Sampling Guide" dated 2016 or most recent version	Section 2.4
	5.3.3 j)	A review of the meteorological monitoring program required in section 4.5, including:	
	i.	Description of measurement methods, field procedures and data calculation methods with interpretation	Section 2.0
	ii.	Summary table of the validation measurements recorded during the year	Section 1.3
	iii.	Visual representation of parameters recorded during the year as well as comparisons to historic data, where available	Figures A.1 - A.12
	iv.	Summary highlighting extreme conditions observed during the year (e.g., heavy rainfall, extreme air temperatures), such as the 1 in 10-year 24-hour return period event and greater	Section 2.3.1
	v.	Summary of monthly measured snow depths and snow water equivalent based on snow course survey data	Section 2.4
	vi.	Final climate data records must be provided in Excel Format	Attachment

1.2 MINE FACILITIES

The locations of the two climate stations and three snow survey stations operated at the Blackwater Mine site are shown on Figure 1.1. The climate stations were installed by KP engineers and scientists with the support of Avison field technicians. The first station (Blackwater Low) was installed in July 2011 at an elevation of 1,050 meters above sea level (masl) (Figure 1.2), and the second station (Blackwater High) was installed in July 2012 at an elevation of 1,470 masl (Figure 1.3). The three snow survey sites (SS1, SS2, and SS3) were established in February 2012 and have been used to collect snow depth and snow water equivalent (SWE) data two to three times a year. Details of the climate and snow survey stations are provided in Table 1.2. Ongoing field visits to operate and maintain these stations are conducted by Avison, with quality assurance checks and guidance provided by KP.



LEGEND:

- PERMITTED MINE AREA
- ACTIVE CLIMATE STATION
- SNOW COURSE STATION
- FIRST NATIONS RESERVE
- PROPERTY BOUNDARY
- PROPOSED MINE FACILITIES

NOTES:

1. BASE MAP: ESRI ARCGIS ONLINE MAPS.
2. COORDINATE GRID IS IN METRES. COORDINATE SYSTEM: NAD 1983 UTM ZONE 10N.
3. THIS FIGURE IS PRODUCED AT A NOMINAL SCALE OF 1:175,000 FOR 8.5x11 (LETTER) PAPER. ACTUAL SCALE MAY DIFFER ACCORDING TO CHANGES IN PRINTER SETTINGS OR PRINTED PAPER SIZE.
4. MINE INFRASTRUCTURE FOOTPRINT IS BASED ON 2020 PRE FEASIBILITY STUDY DESIGN.

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
0	26FEB'24	ISSUED WITH LETTER	BTN	LEN	JGC

BW GOLD LTD.

BLACKWATER GOLD MINE

MINE CLIMATE AND SNOW COURSE SURVEY STATIONS

Knight Piésold CONSULTING

P/A NO. VA101-457/40

REF NO. VA24-00009

FIGURE 1.1

REV 0

SAVED: M:\1\01\00457\40\A\GIS\Figs\VA24-00009\Figure1-1_MineMonitoringStations_r0.mxd; Feb 26, 2024 1:46 PM; lnorenberg

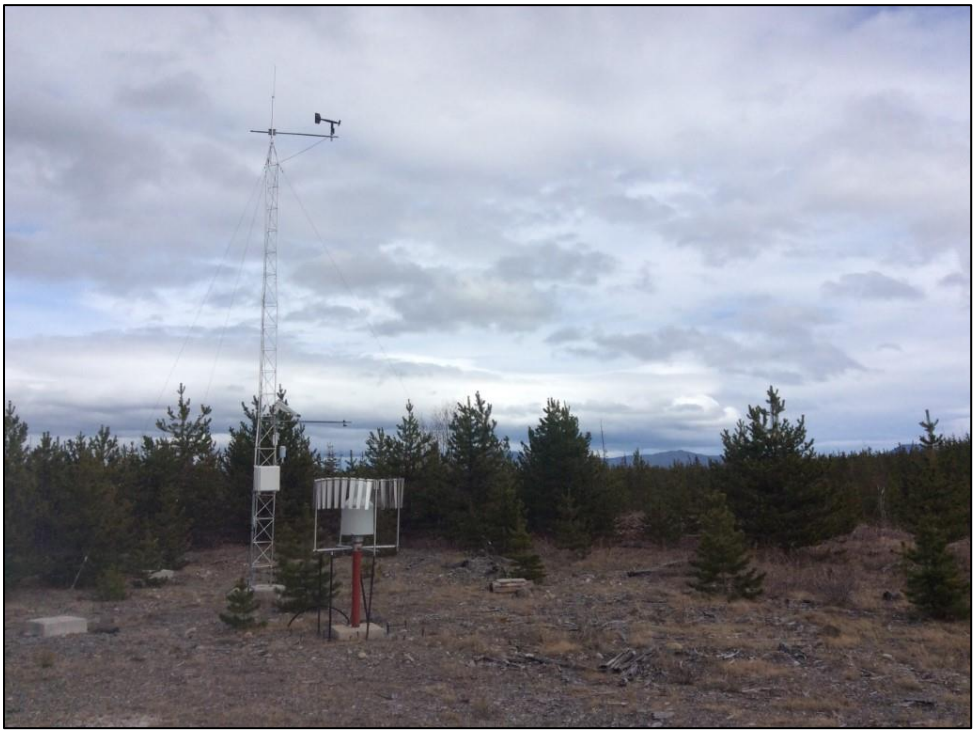


Figure 1.2 Blackwater Low Climate Station

Figure 1.3 Blackwater High Climate Station

Table 1.2 Summary of Site Climate and Snow Survey Stations

Station Name	Elevation (masl)	Easting (m)	Northing (m)	Status	Date Established
Blackwater High	1,470	376,626	5,894,012	Active	July 10, 2012
Blackwater Low	1,050	380,029	5,907,132	Active	July 22, 2011
SS1	1,412	374,638	5,894,891	Inactive as of April 2023	February 1, 2012
SS2	1,168	381,207	5,897,678	Active	February 1, 2012
SS3	1,051	380,029	5,907,132	Active	February 1, 2012

Blackwater High is the Mine's primary climate monitoring location, while Blackwater Low provides backup data, and the differences between the data from the two climate stations provides information pertaining to changes in conditions with changes in elevation (lapse rates and orographic effects). A Campbell Scientific CR1000 data logger is installed at each station, and data are collected at hourly intervals. Both data loggers are set to Pacific Standard Time (PST) to avoid data gaps and overlaps, and to be consistent with standard monitoring practices. Parameters and monitoring methods at each of the two stations are summarized in Table 1.3.

Table 1.3 Climate Station Monitored Parameters

Parameter	Measurement Method	Data Calculation Method
Wind (speed, direction, hourly standard deviation of direction)	Vane anemometer mounted 10 m above ground	Hourly mean for wind speed and direction
Air temperature and relative humidity	Temperature and humidity probe mounted 4 m above ground with a multi-plate passive solar radiation shield	Hourly mean
Precipitation	Weighing rain gauge outfitted with a single Alter windshield	Hourly sum
Net radiation	Radiometer	Hourly mean
Solar radiation	Pyranometer	Hourly mean

1.3 VALIDATION MEASUREMENTS

Sensors on the two climate stations are periodically calibrated by the manufacturers, as described in the Operational and Quality Assurance Plan (KP, 2023). No sensors required calibration in 2023; they were all calibrated in summer 2022. Validation measurements are taken during field visits, as needed. A summary of validation measurements taken in 2023 is provided in Table 1.4. The substantial difference between the temperature validation field measurement and the logger measurement at Blackwater Low is not believed to be indicative of a logger error since Blackwater Low's air temperature and humidity time series did not indicate a systematic sensor error. It is speculated that the noted temperature difference is likely due to sun exposure to the handheld measurement device, whereas the temperature probe on the climate station has a radiation shield.

Table 1.4 2023 Validation Measurements

Station	Parameter	Timestamp	Field Measurement	Logger Measurement
Blackwater Low	Air Temperature	Aug 1, 2023 10:38	16.5° C	14.0° C
Blackwater High		Aug 1, 2023 12:25	13.0° C	12.9° C

2.0 METEOROLOGICAL CHARACTERIZATION

This section describes the meteorological conditions measured at the Mine in 2023. In July of 2023, there were wildfires in the vicinity of the Mine. As discussed later in this section, the higher than normal temperatures and lower than normal precipitation conditions at the Mine site likely contributed to the fire risk. The hourly time series for all measured meteorological parameters are presented as figures in Appendix A and the corresponding hourly datasets are attached as an Excel file.

2.1 DATA AVAILABILITY

Hourly data are considered valid by the Permits if:

a) The instrument is serviced according to the requirements of the most recent version of the *British Columbia Field Sampling Manual* and the manufacturer's instructions, and
b) The data have been validated according to the BC ENV's Data Validation procedures described in the most recent version of the *British Columbia Field Sampling Manual*.

The Effluent Discharge Permit requires valid data for 90% of the hours in each calendar quarter, for continuously monitored parameters. Similarly, the Air Discharge Permit requires valid data for 90% of the hours in each calendar year. As the requirement of the Effluent Discharge Permit is more stringent, it will be used as the compliance standard.

To achieve the 90% per quarter compliance level, data gaps must not exceed approximately nine days cumulatively in a quarter. With Blackwater High as the primary climate station, the Blackwater Low station can be used as a redundant station to provide readings when the Blackwater High station is undergoing maintenance or upgrade. Sufficient concurrent data have been collected at the two stations to facilitate correlations of the two datasets, such that values at one station can be used to calculate expected values at the other. Accordingly, the permit is interpreted to require valid data (measured plus calculated for missing periods) for at least one station, for at least 90% of the hours in a calendar quarter. A summary of data availability, grouped by quarter, is presented in Table 2.1.

Table 2.1 Annual and Quarterly Total Data Availability

Parameter	BW High and Low Combined Daily Data Availability				
	Annual	Q1	Q2	Q3	Q4
Wind Speed	99.8%	99.7%	100%	100%	99.6%
Wind Direction	99.8%	99.7%	100%	100%	99.6%
Wind Direction Standard Deviation	99.8%	99.7%	100%	100%	99.6%
Air Temperature	99.9%	100%	100%	100%	99.6%
Precipitation	99.9%	100%	100%	100%	99.6%
Solar Radiation	99.9%	100%	100%	100%	99.6%
Rel. Humidity	99.9%	100%	100%	100%	99.6%

The permit requirement of data collected for more than 90% of the time in each quarter was met for all parameters.

2.2 AIR TEMPERATURE SUMMARY

The air temperatures recorded at the Mine in 2023 were compared to the long-term temperature series (41 years, 1980-2020) presented in the Hydrometeorology Report (KP, 2021). The long-term temperature series was synthesized based on correlations between data for the Mine stations and concurrent values for nearby ECCC long-term monitoring stations. Monthly and annual average temperatures for 2023 are shown in Table 2.2, along with the long-term historical range of values. At Blackwater High (primary station), the 2023 mean annual temperature (MAT) of 3.3°C was 1.3°C warmer than the long-term MAT of 2.0°C. At Blackwater Low, the 2023 MAT of 5.0°C was 1.8°C warmer than the long-term MAT of 3.2°C. The mean temperature for 2023 was higher than for any year in the 1980 to 2020 period.

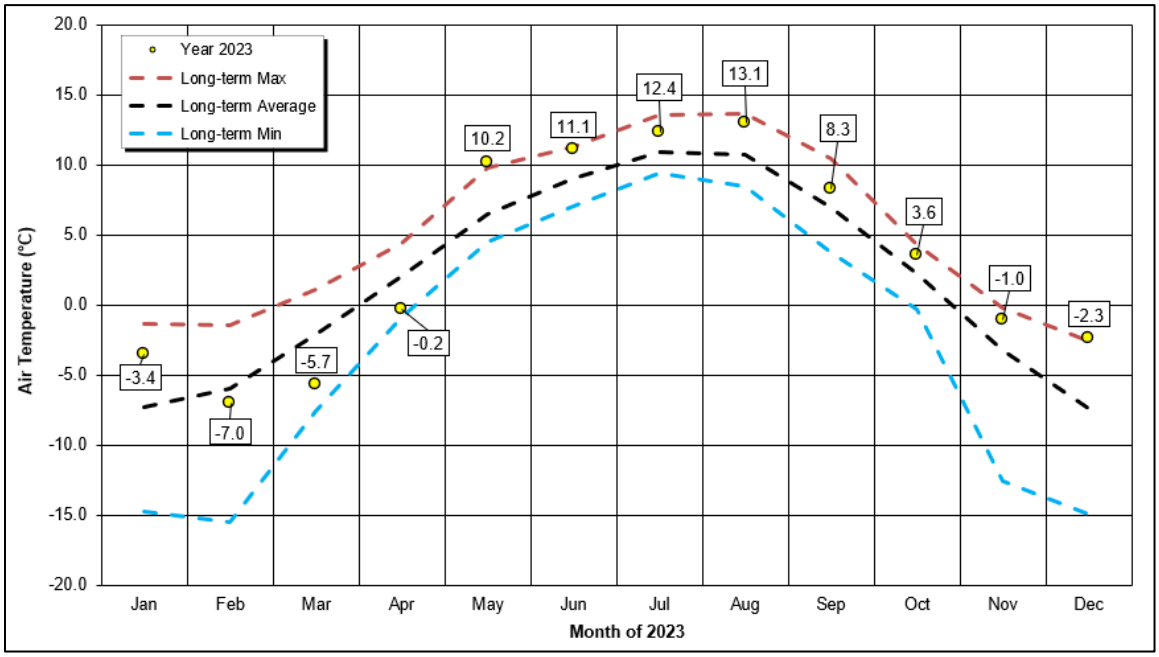
Table 2.2 Mine Air Temperature in 2023 with Comparison to Long-term Estimates

Station / Parameter	Value	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Blackwater Low Air Temperature (°C)	Long-term Max	-2.7	-0.4	2.3	6.8	12.3	14.1	16.1	15.7	11.8	6.0	0.2	-2.0	4.8
	Long-term Min	-16.0	-14.9	-6.7	0.8	6.2	9.3	12.0	10.8	6.2	0.8	-13.5	-16.2	0.8
	Long-term Average	-7.7	-5.6	-1.1	3.7	8.6	11.6	13.7	13.3	9.1	3.6	-2.8	-7.5	3.2
	Year 2023	**-3.3**	**-4.8**	**-3.7**	**2.5**	**12.5**	**13.8**	**14.4**	**15.1**	**10.2**	**4.4**	**-0.1**	**-1.9**	**5.0**
	Year 2023 Deviation from LT-Average	+4.5	+0.8	-2.6	-1.2	+3.9	+2.2	+0.8	+1.8	+1.1	+0.7	+2.7	+5.6	+1.8
Blackwater High (Primary) Air Temperature (°C)	Long-term Max	-1.3	-1.4	1.1	4.4	9.8	11.4	13.6	13.7	10.5	4.3	-0.2	-2.6	3.2
	Long-term Min	-14.7	-15.4	-7.6	-0.8	4.5	7.1	9.5	8.6	3.8	-0.3	-12.5	-14.9	-0.2
	Long-term Average	-7.3	-5.9	-2.1	2.1	6.5	9.1	11.0	10.7	7.0	2.3	-3.2	-7.3	2.0
	Year 2023	**-3.4**	**-7.0**	**-5.7**	**-0.2**	**10.2**	**11.1**	**12.4**	**13.1**	**8.3**	**3.6**	**-1.0**	**-2.3**	**3.3**
	Year 2023 Deviation from LT-Average	+3.8	-1.1	-3.6	-2.3	+3.8	+2.0	+1.4	+2.3	+1.2	+1.3	+2.2	+5.0	+1.3

Note(s):

1. Grey shaded values indicate months with more than 5 missing observations that required infilling based on correlations with values from the other station.
2. The Mine's primary monitoring station is BW High, with BW Low serving as a redundancy station.
3. Underlined 2023 values indicate a new maximum compared to the long-term record (1980-2020).

The 2023 monthly average air temperatures are visually compared with long-term average, maximum, and minimum average monthly temperature patterns on Figure 2.1.



Note(s):

1. Monthly Average Air Temperature measurements at Blackwater High station (elevation 1,470 m) are shown as yellow dots.
2. Long-term statistics are based on a 41-year synthetic record (1980-2020) for the Blackwater High station.

Figure 2.1 Monthly Average Air Temperatures at Blackwater High

During 2023, the climate transitioned from La Niña to El Niño conditions. During El Niño periods in the Pacific Northwest region where the Mine is located, conditions are usually warmer and dryer than during La Niña periods. In terms of natural hazards, La Niña conditions are usually associated with cold spells and flood events, while El Niño conditions are usually associated with heat waves and increased wildfire activity. The World Meteorological Organization (WMO) declared the onset of El Niño in early July, but the transition at site occurred a little earlier around spring 2023, with temperatures mostly below long-term averages in the first quarter of the year, and then rising to and staying above long-term averages for the remainder of the year.

2.3 PRECIPITATION SUMMARY

The precipitation records at the Mine in 2023 were compared to the long-term precipitation series (41 year, 1980-2020) presented in the Hydrometeorology Report (KP, 2021). The long-term precipitation series was synthesized by correlating Mine station data with nearby ECCC station data. Periods of missing 2023 data at Blackwater Low were estimated by adjusting concurrent Blackwater High data according to an orographic factor. Monthly and annual average precipitation for 2023 are shown in Table 2.3, along with the long-term historical ranges of values.

Table 2.3 Monthly and Annual Precipitation - 2023 and Long-term Estimates

Station / Parameter	Source	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Blackwater Low Total Precipitation (mm)	Long-term Max	128	98	62	70	83	155	156	134	90	146	122	79	657
	Long-term Min	11	5	1	4	7	15	11	2	7	6	12	7	345
	Long-term Average	41	28	24	28	38	59	56	46	44	54	42	37	495
	Year 2023	**34**	**34**	**24**	**28**	**14**	**27**	**72**	**39**	**13**	**20**	**24**	**32**	**361**
	Year 2023 as Percentage of LT-Average	83%	121%	100%	99%	36%	46%	129%	83%	30%	37%	58%	86%	73%
	% Precipitation as Snow	81%	74%	74%	52%	0%	0%	0%	0%	0%	27%	65%	87%	38%
Blackwater High (Primary) Total Precipitation (mm)	Long-term Max	164	106	65	79	100	177	178	153	103	175	120	101	779
	Long-term Min	14	6	2	4	8	17	12	9	10	18	15	10	408
	Long-term Average	51	35	30	33	44	68	64	52	51	65	56	47	595
	Year 2023	**46**	**73**	**29**	**33**	**19**	**45**	**91**	**32**	**23**	**31**	**51**	**38**	**512**
	Year 2023 as Percentage of LT-Average	90%	209%	97%	100%	44%	67%	143%	61%	46%	48%	91%	81%	86%
	% Precipitation as Snow	93%	100%	89%	70%	2%	6%	0%	0%	10%	23%	81%	89%	47%

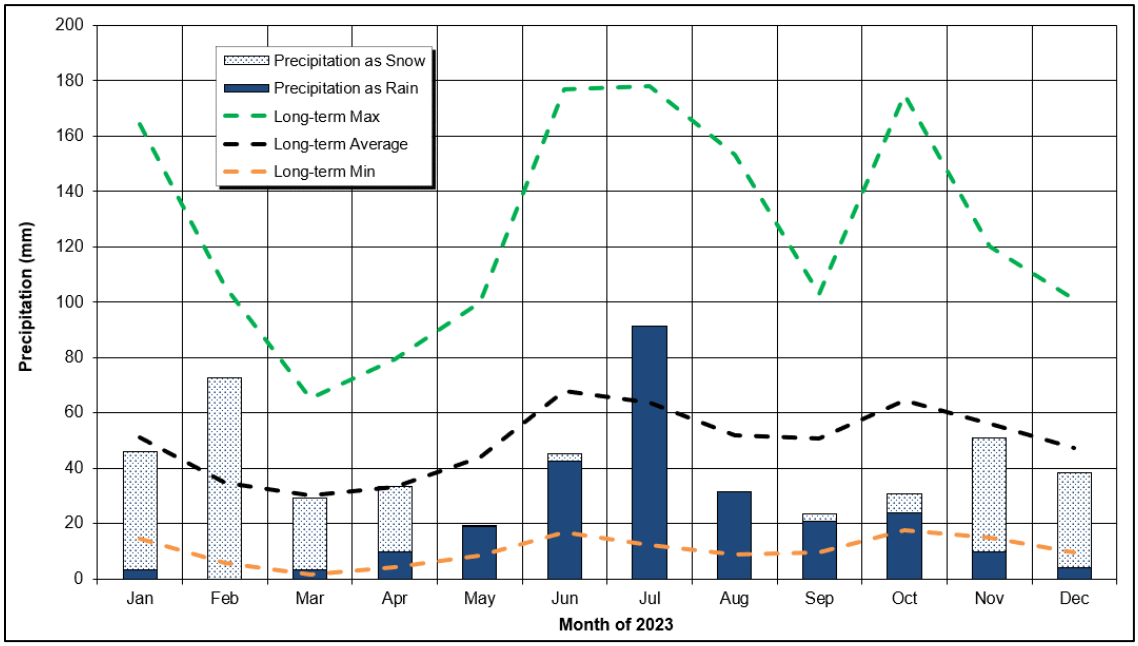
Note(s):

1. Grey shaded values indicate months with more than 5 missing observations. These values were estimated by orographically adjusting the concurrent values from the Blackwater High station.
2. The Mine's primary monitoring station is Blackwater High, with the Blackwater Low station serving as a back-up station.
3. % precipitation as snow is for 2023.

At Blackwater High, the 2023 annual precipitation of 512 mm was 86% of the long-term mean annual precipitation (MAP) of 595 mm. At Blackwater Low, the 2023 annual precipitation of 361 mm was 73% of the long-term MAP of 495 mm, though the relatively lower precipitation at this site may have been at least partially due to the estimation of missing data. About 47% of the annual precipitation 2023 fell as snow at Blackwater High and 38% of the annual precipitation 2023 fell as snow at Blackwater Low. Blackwater Low had a lower percentage occurring as snow due to its lower elevation and correspondingly warmer temperatures.

The 2023 annual precipitation was lower than average at both stations, ranking between the mean and 10-year dry values at Blackwater High and between the 20-year and 50-year dry values at Blackwater Low (Table 2.12 of KP 2021).

A comparison of the 2023 monthly precipitation at Blackwater High with the long-term monthly mean, maximum, and minimum values is shown on Figure 2.2. As discussed previously, regional climate conditions in 2023 transitioned from cold and wet La Niña conditions to hot and dry El Niño conditions. Consistent with this pattern, precipitation at the site was mostly at or above normal levels in January to April, and then, except for July, precipitation was below normal the rest of the year.



Note(s):

1. Precipitation measurements at Blackwater High station (elevation 1,470 m).
2. Long-term statistics are based on a 41-year synthetic record (1980-2020) for the Blackwater High station.

Figure 2.2 Mine Precipitation in 2023

2.3.1 EXTREME PRECIPITATION

The five highest 24-hour precipitation depths values recorded in 2023 at the Blackwater High station are presented in Table 2.4.

Table 2.4 Five Highest Precipitation Events in 2023

Date of High Precipitation Event	24-hour Precipitation (mm), Blackwater High
2023-07-16	23.02
2023-06-18	19.14
2023-07-24	16.74
2023-06-19	16.69
2023-03-24	16.36

These values are raw data values before the application of an under-catch factor. Precipitation gauges are subject to under-catch in windy conditions. The average wind speed recorded at Blackwater High on July 16, 2023 was 1.6 m/s, and the precipitation gauge at Blackwater High is equipped with an Alter-type windshield; as such, a catch efficiency of 95% is applicable, which translates to an under-catch factor of 1.05. Application of this factor to the maximum 24-hour precipitation recorded in 2023 at Blackwater High results in a value of 24.2 mm, which is less than the 2-year storm (32 mm/24-hour) estimated in the latest Project Hydrometeorological Report (KP, 2021).

2.4 SNOW SURVEY SUMMARY

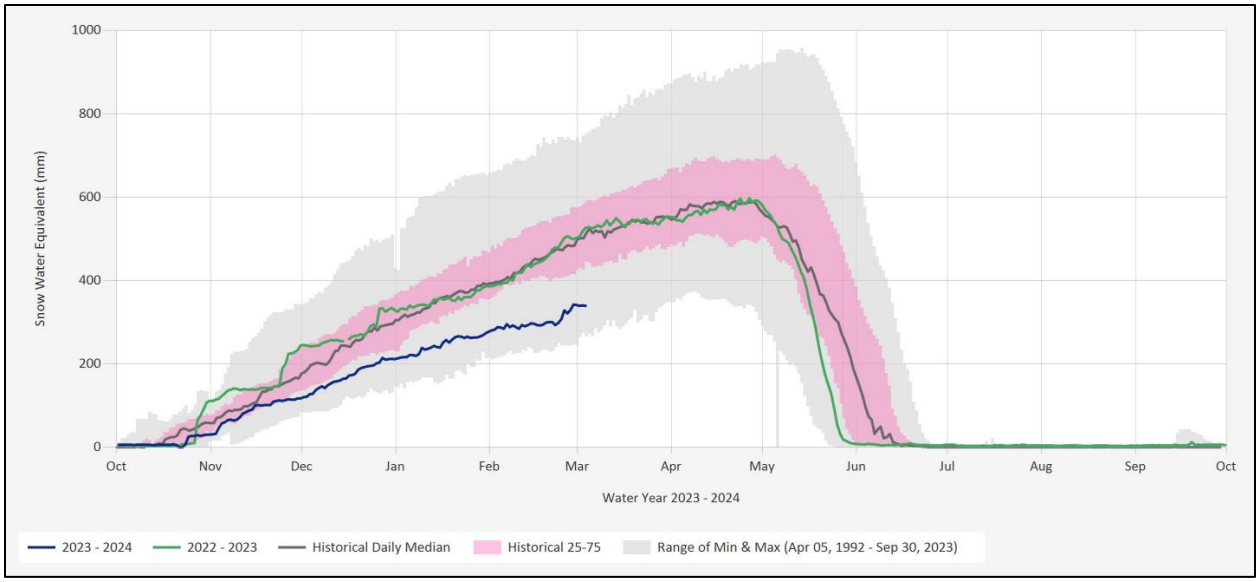
The manual snow surveys at the Mine followed the sampling schedule of the regional snow survey conducted by the BC government. Snow surveys were completed in early 2023, prior to the issuance of the EMA permit in May 2023 (PE 110652). In March and April, the transition to the major mine permits and associated regulatory changes led to uncertainties in scope approval and the temporary interruption of site visits. Field work resumed in May 2023 after the issuance of the EMA permit. By this time, the snowpack had melted at the survey stations. Consequently, no snow survey data are available for April 1, May 1 and June 1 of 2023.

The results of the 2023 manual snow surveys at the Mine are summarized in Table 2.5.

Table 2.5 2023 Snow Course Survey Measurements

Snow Course	Date	Avg. Snow Depth (cm)	Avg. Snow Water Equivalent (cm)	Avg. Snow Density (%)
SS1	2023-01-04	59	11.6	20
	2023-02-23	97	20.0	21
SS2	2023-01-04	31	5.6	18
	2023-03-01	50	9.2	18
SS3	2023-01-05	39	6.2	16
	2023-03-01	46	10.4	23

Snow water equivalent (SWE) data from the nearby Mount Wells snow pillow station (1B01P) are presented on Figure 2.3 (BC RFC, 2023).



Note(s):

1. Data Source: Mount Wells Automatic Snow Pillow Station 1B01P (BC RFC, 2024).
2. Water year (WY) starts in October of the previous year and ends in September. Snowpack conditions in WY 2023 (Oct 2022 – Sep 2023) were normal, while conditions during the first 4 months of WY2024 (Oct-Dec 2023) were below average.

Figure 2.3 Mount Wells Snow Water Equivalent Results

The regional observations show that snowpack conditions during the winter of 2022/2023 (October 2022 to May 2023) were normal, while during the current winter of 2023/2024 (October 2023 to March 2024) snowpack levels have been lower than normal.

It should be noted that the area around the high-elevation snow survey station SS1 was fully logged for mining operations by April 13, 2023, resulting in the need to relocate this station. A new high-elevation snow survey station will be established in Q1 2024 at a suitable location approved by a Qualified Professional (QP).

3.0 CONTINUATION AND IMPROVEMENT

Avison and KP will continue to service the Blackwater High and Blackwater Low climate stations in accordance with the *Climatology Station Operational and Quality Assurance Plan* (KP, 2023).

In August 2023, the two climate stations were each upgraded with a telemetry modem, which added real-time weather monitoring capabilities for the Mine. This upgrade has significantly improved response times to sensor malfunction and repair. Additionally, accessing real-time weather data via an interactive dashboard facilitates operation and management planning for the Mine.

Yours truly,
Knight Piésold Ltd.

Prepared:

Brian Nei, EIT
Junior Engineer

Prepared:

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2024-03-14

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Specialist Hydrotechnical Engineer
Associate

KNIGHT PIÉSOLD LTD.
PERMIT NUMBER
1001011
EGBC PERMIT TO PRACTICE

Approval that this document adheres to the Knight Piésold Quality System:

Attachments:

Figure A.1 Rev 0 Blackwater High Meteorology Station - Measured Wind Speed and Direction
Figure A.2 Rev 0 Blackwater High Meteorology Station - Measured Temperature
Figure A.3 Rev 0 Blackwater High Meteorology Station - Measured Precipitation
Figure A.4 Rev 0 Blackwater High Meteorology Station - Measured Radiation
Figure A.5 Rev 0 Blackwater High Meteorology Station - Measured Relative Humidity
Figure A.6 Rev 0 Blackwater High Meteorology Station - Measured Snow Depth
Figure A.7 Rev 0 Blackwater Low Meteorology Station - Measured Wind Speed and Direction
Figure A.8 Rev 0 Blackwater Low Meteorology Station - Measured Air Temperature
Figure A.9 Rev 0 Blackwater Low Meteorology Station - Measured Precipitation
Figure A.10 Rev 0 Blackwater Low Meteorology Station - Measured Radiation
Figure A.11 Rev 0 Blackwater Low Meteorology Station - Measured Relative Humidity
Figure A.12 Rev 0 Blackwater Low Meteorology Station - Measured Snow Depth
Climate Data 2023 - Blackwater High and Low Climate Stations.xlsx *(issued electronically)*

References:

BC Ministry of Environment (BC MOE). 1981. Snow Survey Sampling Guide. Victoria, BC.

BC River Forecast Centre (BC RFC), 2024. Snow Survey Data. Accessed from: https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-science-data/water-data-tools/snow-survey-data

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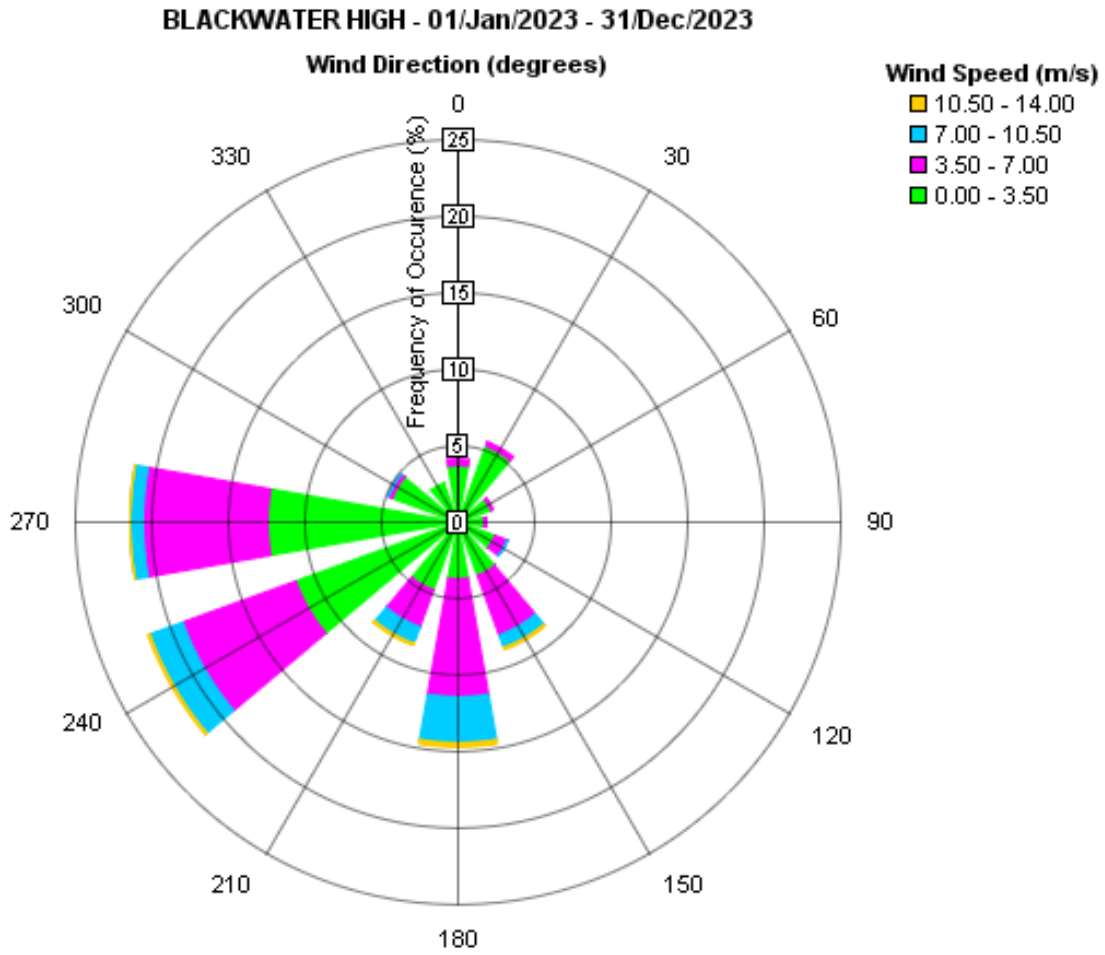
Dingman, S.L., 2015. Physical Hydrology. Third edition. Waveland Press, Long Grove, Illinois.

Knight Piésold Ltd. (KP), 2021. Blackwater Gold Project – 2020 Hydrometeorology Report. May 17. Vancouver, BC. Ref. No. VA101-457/33-8, Rev 1.

Knight Piésold Ltd. (KP), 2023. Letter to Travis Desormeaux (BW Gold), Re: Climatology Station Operational and Quality Assurance Plan. June 23. Vancouver, BC. Ref. No. VA23-00947, Rev 0.



REV	DATE	DESCRIPTION	PREP'D	RVW'D
0	14MAR'2024	ISSUED WITH LETTER	BTN	NWR

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BLACKWATER GOLD PROJECT

BLACKWATER HIGH METEOROLOGY STATION MEASURED WIND SPEED AND DIRECTION

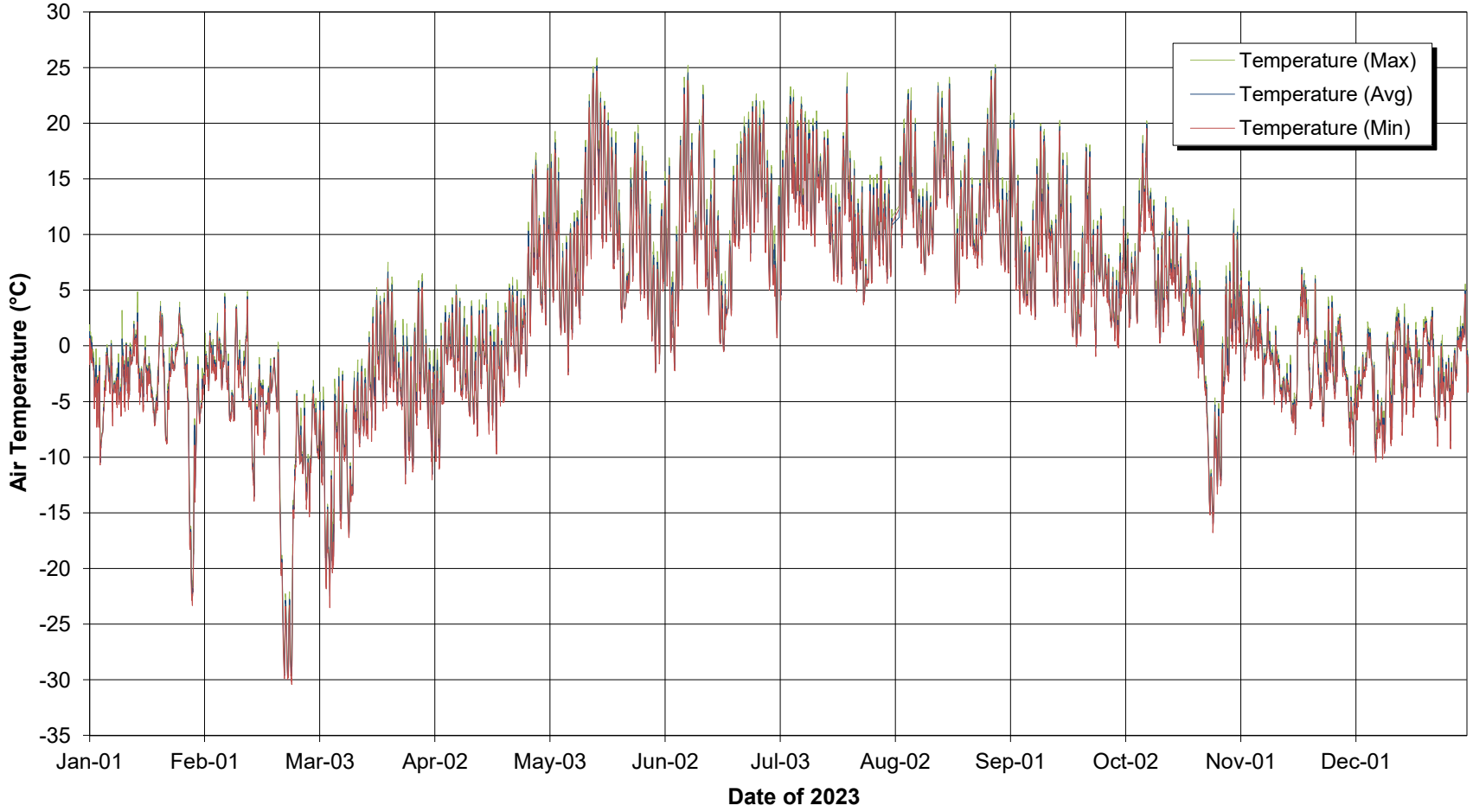
Knight Piésold CONSULTING

P/A NO. VA101-457/40

REF. NO. VA24-00009

FIGURE A.1

REV 0



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0	14MAR'2024	ISSUED WITH LETTER	BTN	NWR

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BLACKWATER HIGH METEOROLOGY STATION MEASURED TEMPERATURE

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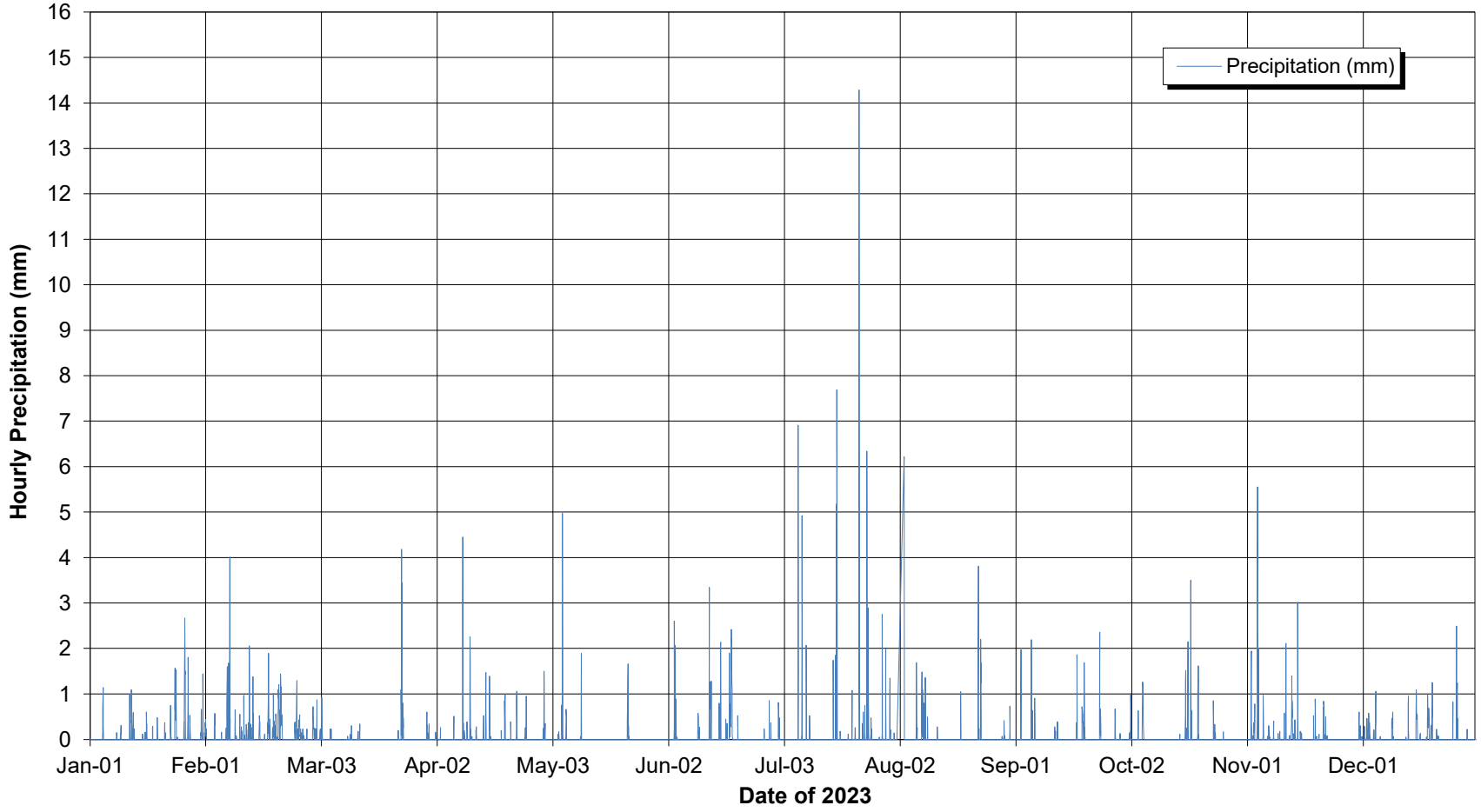
P/A NO. VA101-457/40

REF. NO. VA24-00009

FIGURE A.2

REV 0



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BLACKWATER HIGH METEOROLOGY STATION MEASURED PRECIPITATION

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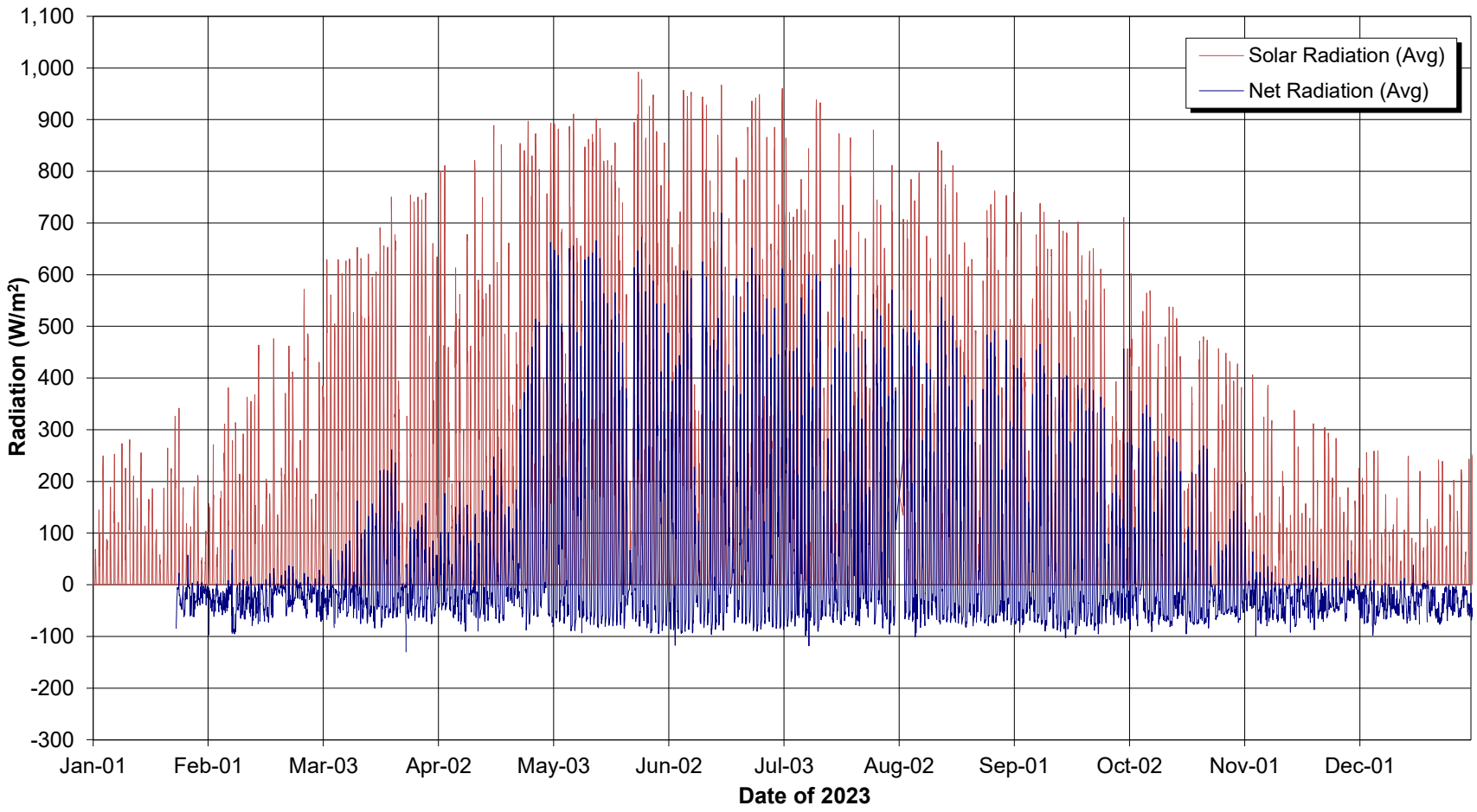
REF. NO. VA24-00009

FIGURE A.3

REV 0



NOTES:
1. NET RADIATION DATA ARE UNAVAILABLE BETWEEN JANUARY 1 AND JANUARY 23 DUE TO SENSOR MALFUNCTION.

REV	DATE	DESCRIPTION	PREP'D	RVW'D
0	14MAR'2024	ISSUED WITH LETTER	BTN	NWR

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BLACKWATER HIGH METEOROLOGY STATION MEASURED RADIATION

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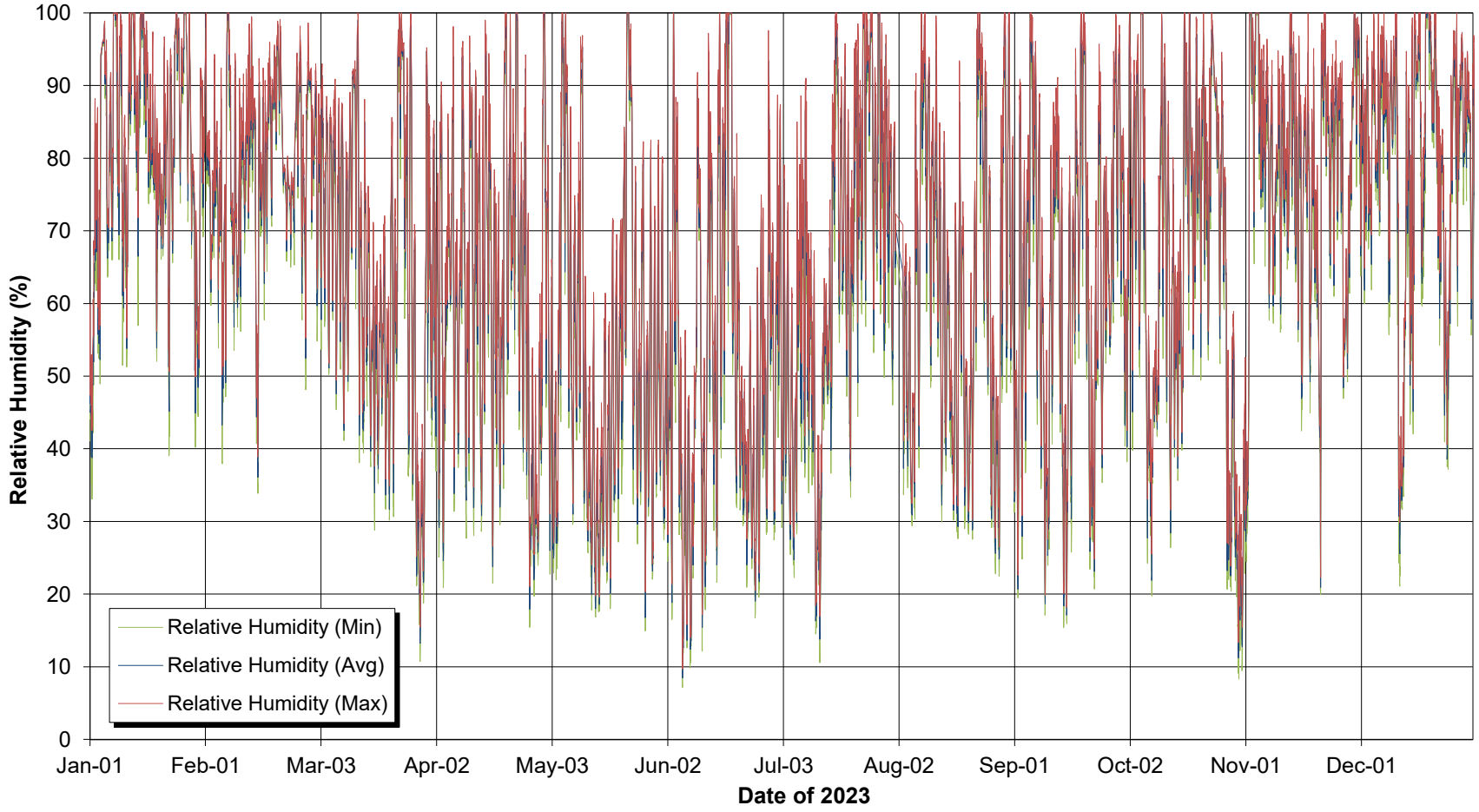
P/A NO. VA101-457/40

REF. NO. VA24-00009

FIGURE A.4

REV 0



REV	DATE	DESCRIPTION	PREP'D	RVW'D
0	14MAR'2024	ISSUED WITH LETTER	BTN	NWR

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BLACKWATER HIGH METEOROLOGY STATION MEASURED RELATIVE HUMIDITY

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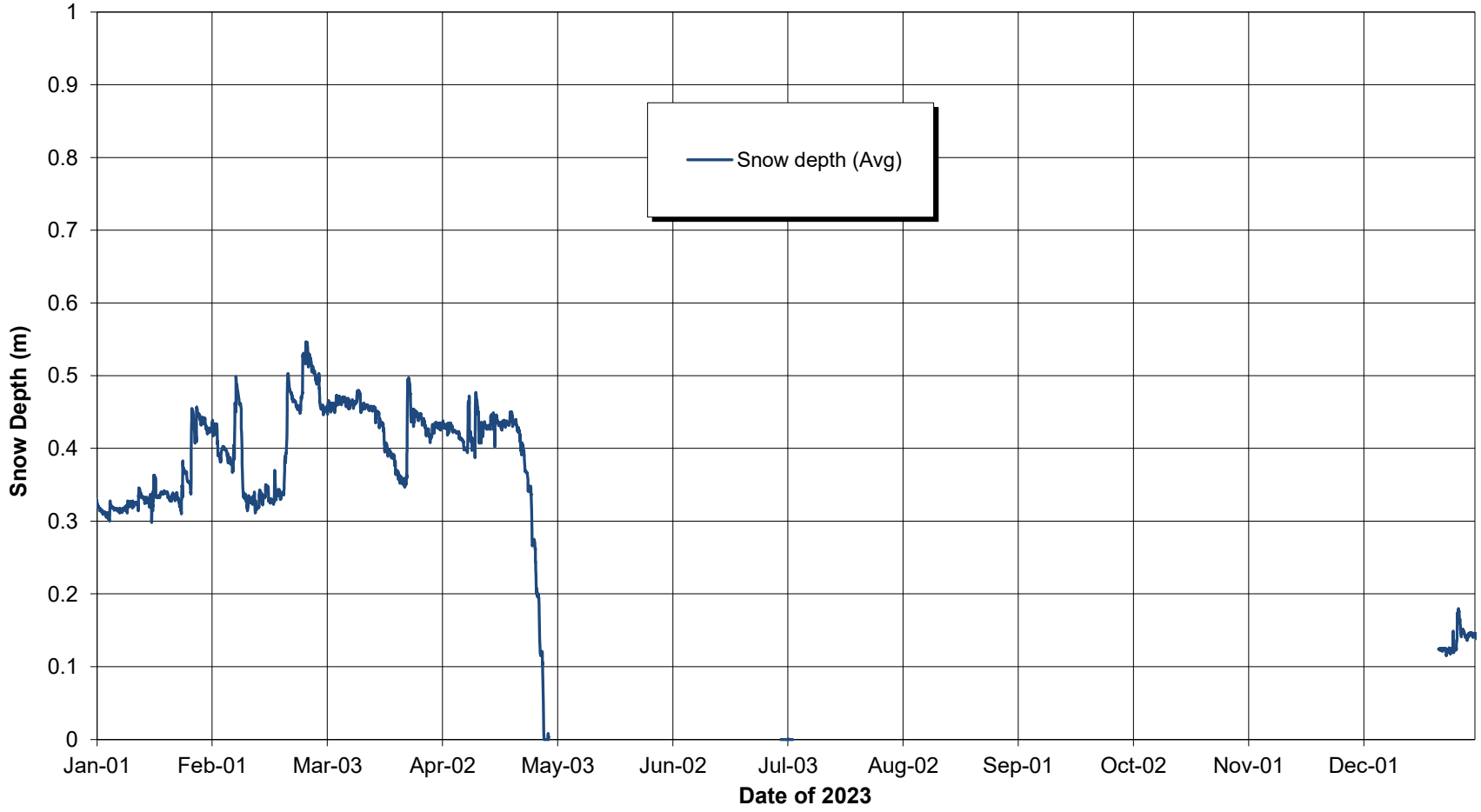
P/A NO. VA101-457/40

REF. NO. VA24-00009

FIGURE A.5

REV 0



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BLACKWATER HIGH METEOROLOGY STATION MEASURED SNOW DEPTH

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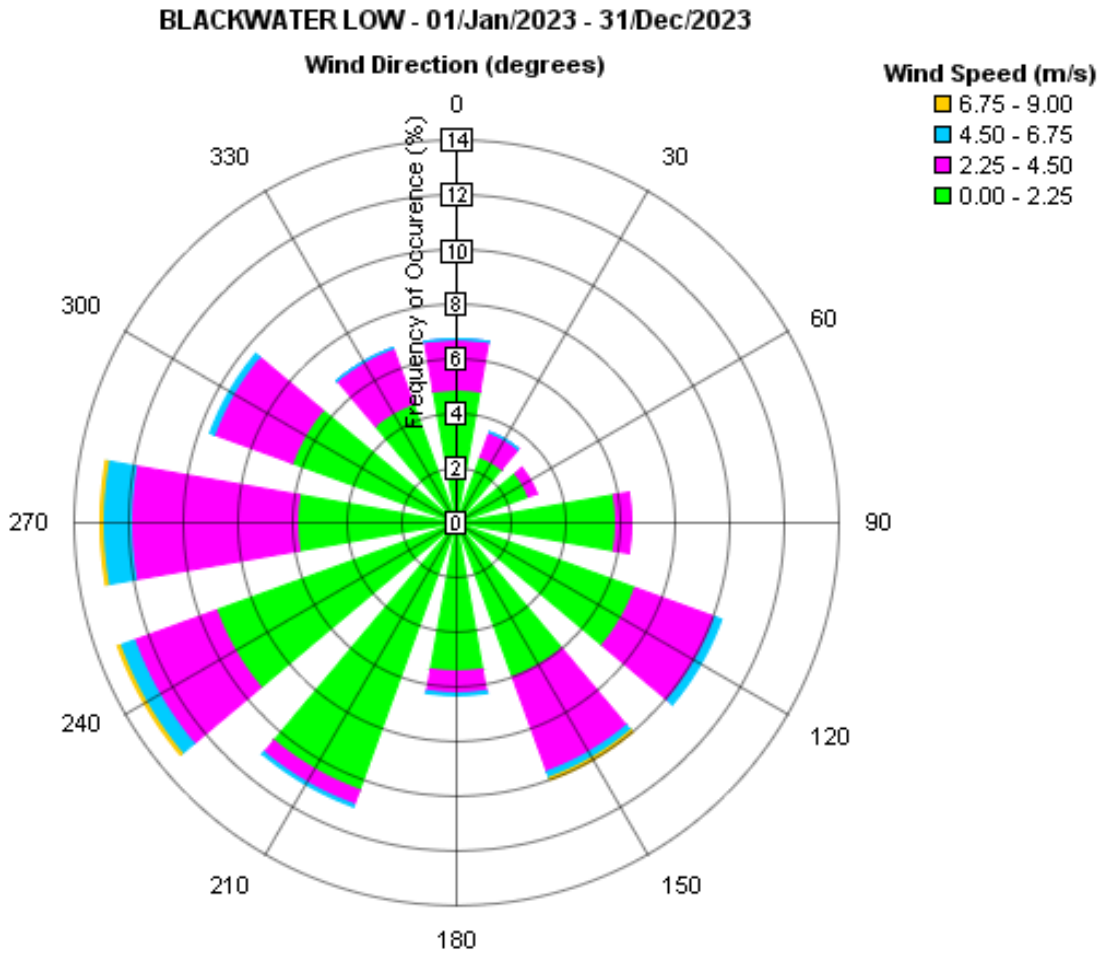
P/A NO. VA101-457/40

REF. NO. VA24-00009

FIGURE A.6

REV 0



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0	14MAR'2024	ISSUED WITH LETTER	BTN	NWR

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BLACKWATER LOW METEOROLOGY STATION MEASURED WIND SPEED AND DIRECTION

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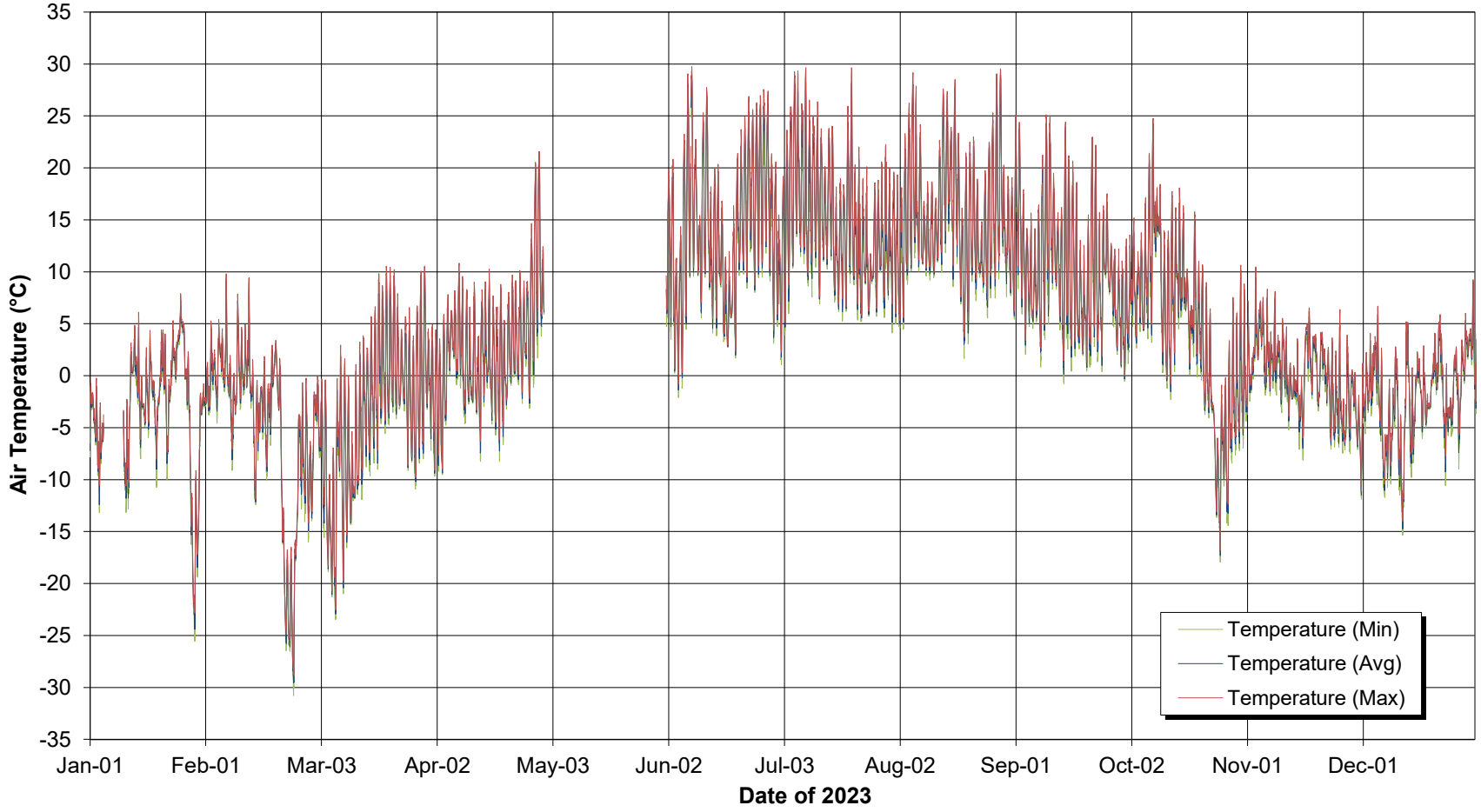
P/A NO. VA101-457/40

REF. NO. VA24-00009

FIGURE A.7

REV 0



NOTES:
1. DATA ARE UNAVAILABLE BETWEEN APRIL 30 AND JUNE 2 DUE TO CABLE DAMAGE.

REV	DATE	DESCRIPTION	PREP'D	RVW'D
0	14MAR'2024	ISSUED WITH LETTER	BTN	NWR

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BLACKWATER GOLD PROJECT

BLACKWATER LOW METEOROLOGY STATION MEASURED AIR TEMPERATURE

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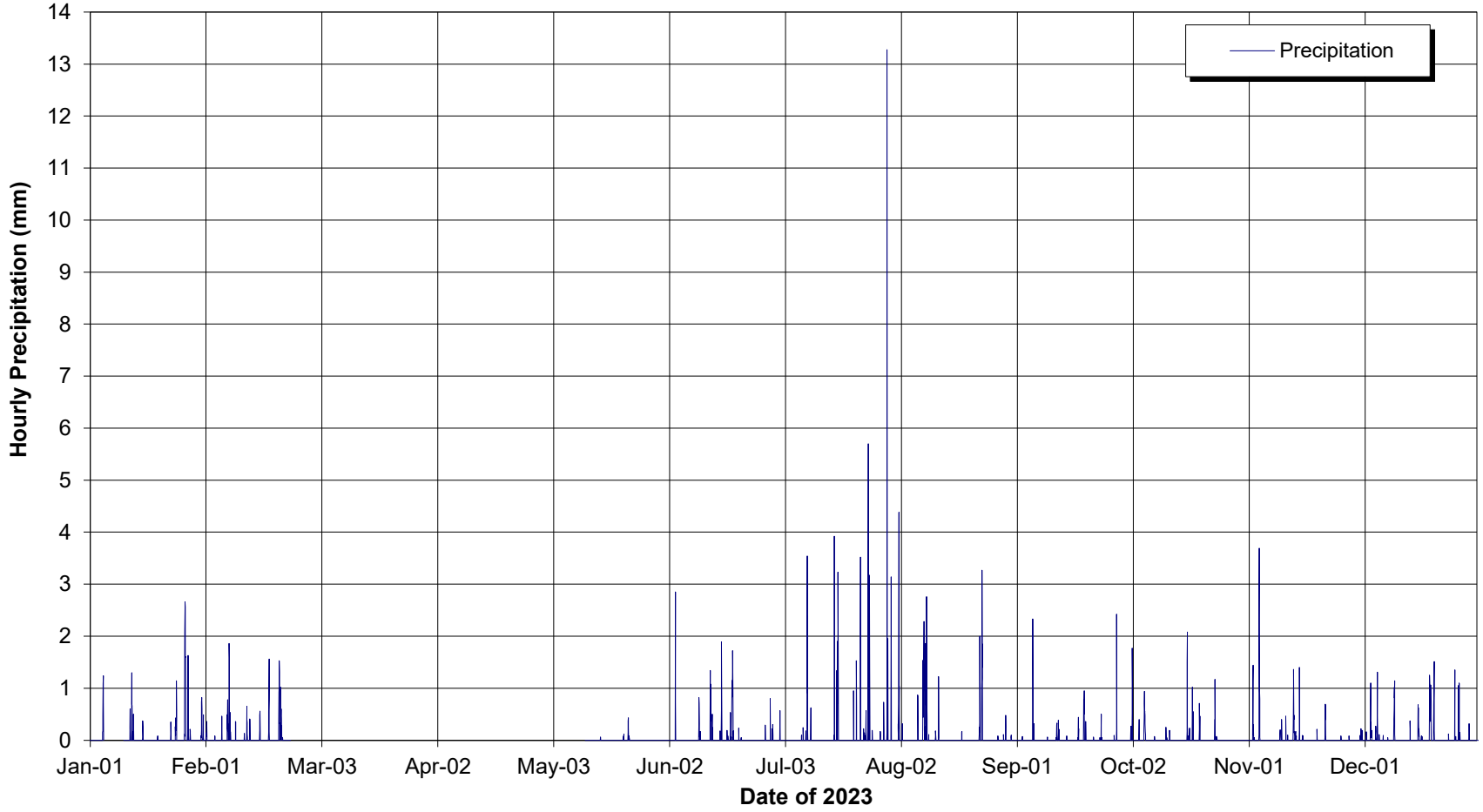
P/A NO. VA101-457/40

REF. NO. VA24-00009

FIGURE A.8

REV 0



NOTES:
1. DATA ARE UNAVAILABLE BETWEEN FEBRUARY 23 AND MAY 11 DUE TO SENSOR MALFUNCTION.

REV	DATE	DESCRIPTION	PREP'D	RVW'D
0	14MAR'2024	ISSUED WITH LETTER	BTN	NWR

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BLACKWATER GOLD PROJECT

BLACKWATER LOW METEOROLOGY STATION MEASURED PRECIPITATION

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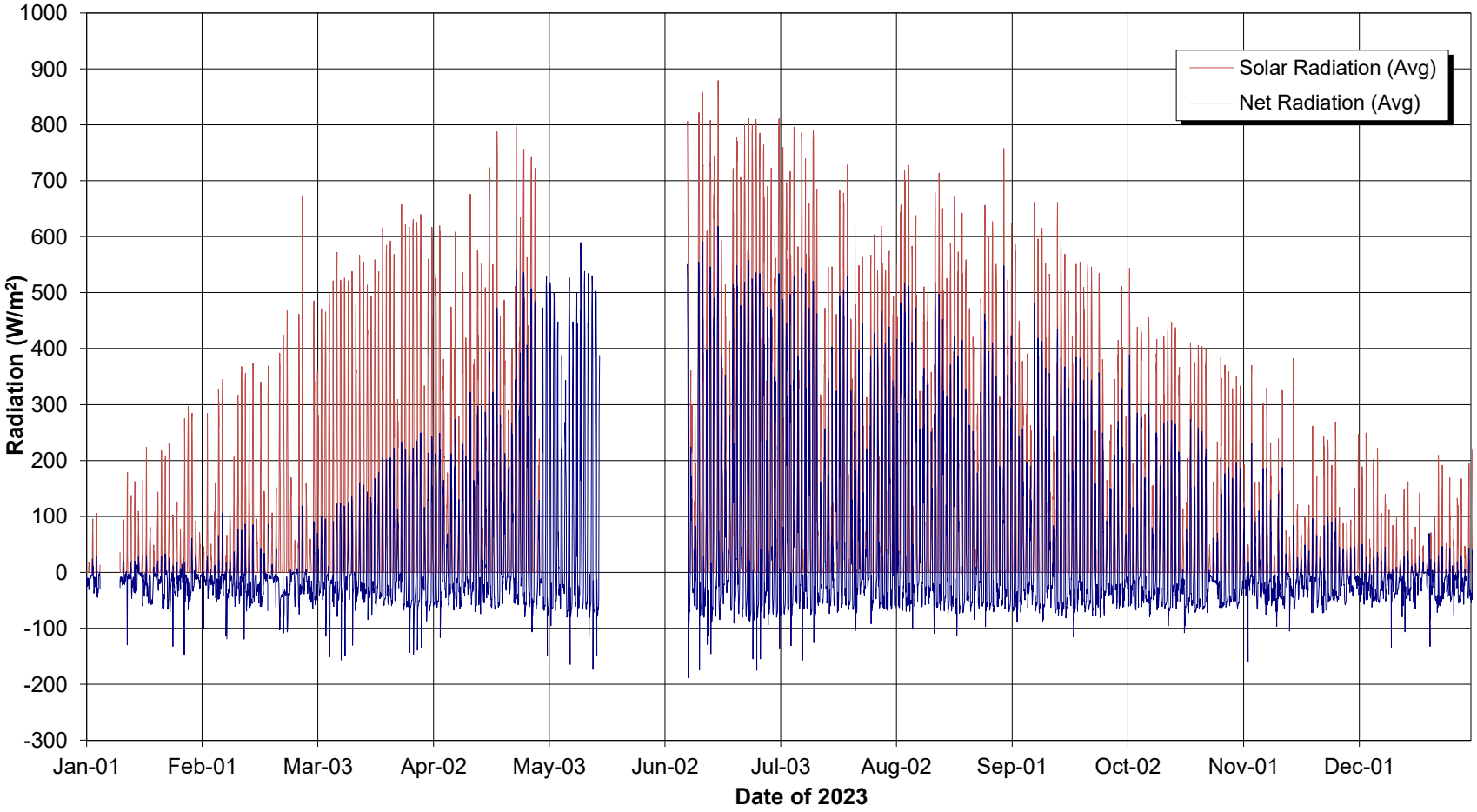
REF. NO. VA24-00009

FIGURE A.9

REV 0



NOTES:
1. DATA ARE UNAVAILABLE BETWEEN MAY 1 AND JUNE 8 DUE TO CABLE DAMAGE.

REV	DATE	DESCRIPTION	PREP'D	RVW'D
0	14MAR'2024	ISSUED WITH LETTER	BTN	NWR

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BLACKWATER GOLD PROJECT

BLACKWATER LOW METEOROLOGY STATION MEASURED RADIATION

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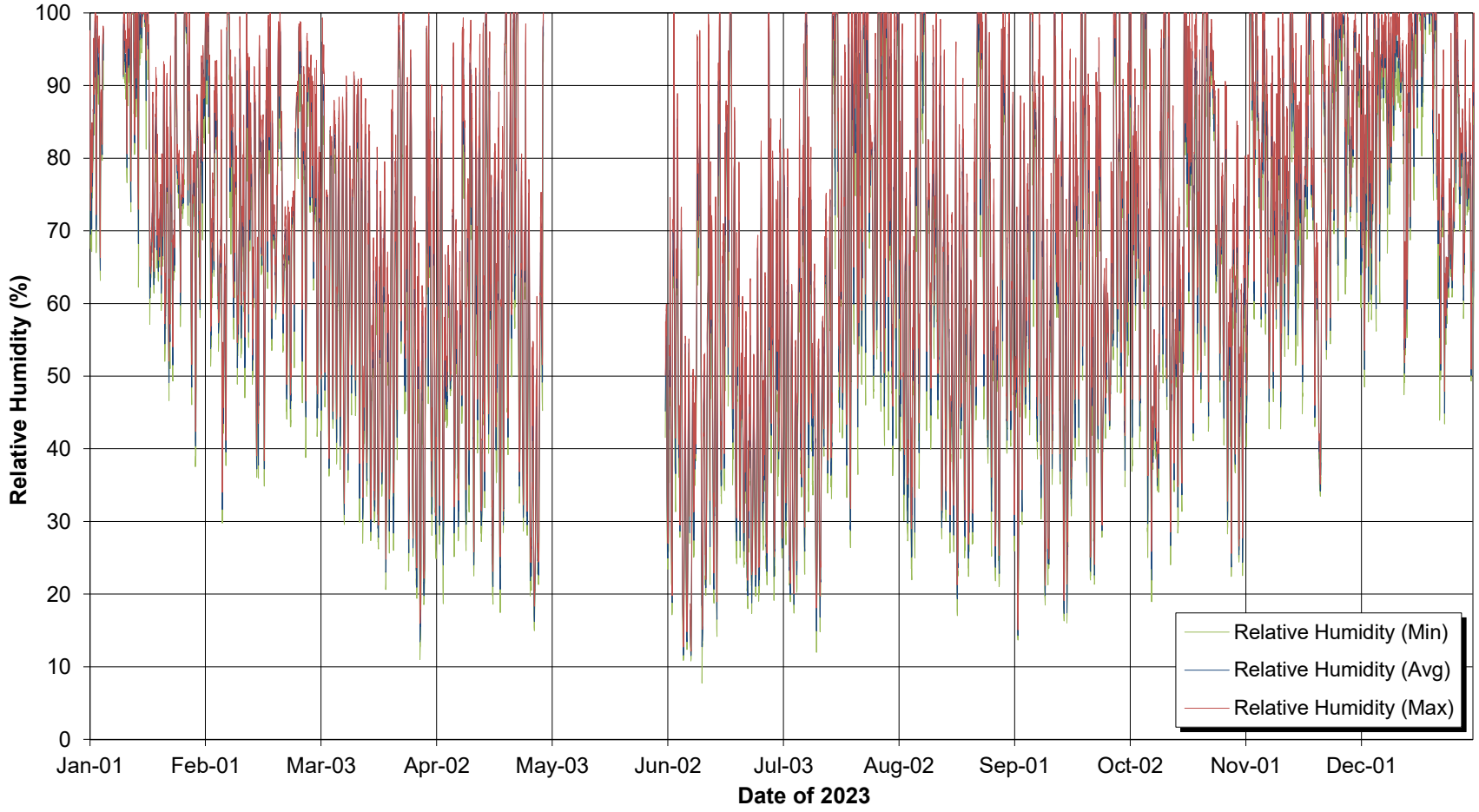
P/A NO. VA101-457/40

REF. NO. VA24-00009

FIGURE A.10

REV 0



NOTES:
1. DATA ARE UNAVAILABLE BETWEEN MAY 1 AND JUNE 1 DUE TO CABLE DAMAGE.

REV	DATE	DESCRIPTION	PREP'D	RVW'D
0	14MAR'2024	ISSUED WITH LETTER	BTN	NWR

BW GOLD LTD.

BLACKWATER GOLD PROJECT

BLACKWATER LOW METEOROLOGY STATION MEASURED RELATIVE HUMIDITY

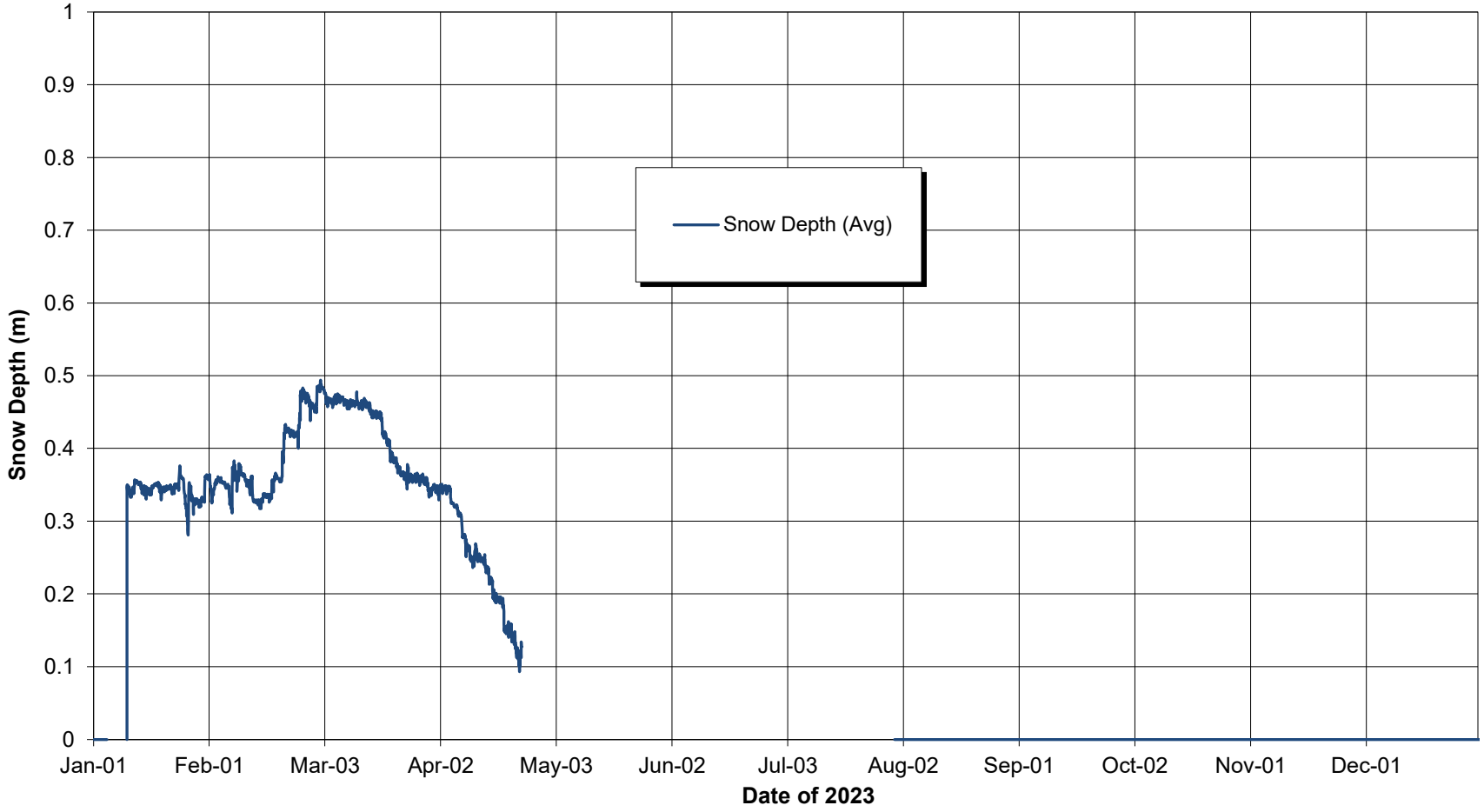
Knight Piésold CONSULTING

P/A NO. VA101-457/40

REF. NO. VA24-00009

FIGURE A.11

REV 0



REV	DATE	DESCRIPTION	PREP'D	RVW'D
0	14MAR'2024	ISSUED WITH LETTER	BTN	NWR

BW GOLD LTD.

BLACKWATER GOLD PROJECT

BLACKWATER LOW METEOROLOGY STATION MEASURED SNOW DEPTH

Knight Piésold CONSULTING

P/A NO. VA101-457/40

REF. NO. VA24-00009

FIGURE A.12

REV 0

APPENDIX C CFMP Annual Report, 2023

Blackwater Gold Project

Country Foods Monitoring Plan: Environmental Assessment Certificate Condition 41 Annual Report 2023

PREPARED FOR

BW Gold LTD.

DATE
March 2024

REFERENCE
0722163-03

SIGNATURE PAGE

Blackwater Gold Project

Country Foods Monitoring Plan: Environmental Assessment Certificate Condition 41 Annual Report 2023

As required by the Blackwater Gold Mine Environmental Assessment Certificate Condition 41, the CFMP was prepared and implemented by qualified environmental professionals (QEPs), including those shown below. A QEP is a person who has training, experience, and expertise in a discipline relevant to the field of practice set out in the condition, is registered with a professional organization enabled under an Act who must follow a code of ethics issued by the professional organization, perform her or his duties in the public interest, and can be subject to disciplinary action by the organization.

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ACKNOWLEDGEMENTS

This report was prepared by Entia Environmental Consultants Ltd (Entia), under a sub-contract with ERM Consultants Canada Ltd. (ERM), on behalf of BW Gold Ltd. (BW Gold). This report was authored by Dr. Annette Muttray with senior technical review by Dr. Lesley Shelley. Statistical analyses were conducted by Dr. Arianne Albert, Sawyer McFadden, Alexandre Baud, and Joanna Zhao of ERM. Carrie Strangway of ERM provided statistical summaries of water quality data. Review was provided by Patty Vadnais and Stuart Van Bibber of ERM. ERM also provided GIS, Graphics, and Publishing support services.

EXECUTIVE SUMMARY

Section 41(i)(v) of the Environmental Assessment Certificate (EAC) requires a plain-language executive summary that summarizes the data, results, and conclusions of the Country Foods Monitoring Plan (CFMP) be provided. Rather than providing a fully separate report, this Executive Summary section provides the required plain language summary of the 2023 CFMP sampling program, results, and conclusions.

CONTEXT AND SITE ACTIVITIES IN 2023

Section 41 of the EAC for the Blackwater Mine (the Mine) requires a CFMP, including the sampling of air, surface water, fish tissue, soil, plant and berry tissue, and small mammals. The purpose of the CFMP is to:

- determine the effects of the Mine on the aquatic and terrestrial environments with respect to metal concentrations in country foods; and
- to confirm the predictions made in the human health risk assessment (HHRA) for the optimized Project.

If unexpected effects of the Project are found, the CFMP includes an adaptive management framework to identify the need for additional mitigation measures to reduce or eliminate mine-related effects.

The Mine initiated limited Early Works and other construction activities at the mine site in October 2022, which continued into 2023. Construction activities included clearing, grubbing ditching, site levelling at the Plant Site location, installation of sediment and erosion controls, and construction of ditches, diversions, and a sediment control pond. Six clear span bridges within the mine site were also replaced in 2023 with suitable construction equipment rated structures.

BW Gold received an amended *Environmental Management Act* (EMA) Permit PE-110652 and PE-110650 in May 2023, authorizing discharge of effluent to surface water and groundwater from the Blackwater mine site and discharge of air contaminants to the atmosphere from the mine, respectively. In 2023, there were no effluent discharges from the Mine to surface water, however, a permitted discharge to ground occurred to the Rapid Infiltration Basin (RIB) during the 2023 monitoring period.

BW Gold has a permitted diesel-fired putrescible waste incinerator (PE-106530), which is located near the exploration camp. The incinerator had a trial run in 2023 to ensure that it is in good working condition. However, in 2023 the incinerator was not used as a part of the Waste Management Plan at the Mine. No point source emissions to air occurred in 2023 as construction of the mine site progressed.

Activities in 2023 that could have resulted in emissions of fugitive dust (non-point source emissions) to air were the following:

- Land clearing and earthworks for the construction camp and plant site;
- Construction and use of unpaved access and mine roads;
- Material handling/re-handling at aggregate and topsoil stockpiles;

- Parking lot and road grading;
- Construction of water management structures (e.g., diversion channels);
- Aggregate extraction from borrow pits;
- Borrow and aggregate crushing and screening; and
- Concrete Batch Plants.

In July 2023, a lightning-caused wildfire (Davidson Creek wildfire) started in areas adjacent to the mine site, which affected all field sampling programs including the CFMP. Although access to the mine site was allowed again in late July, the wildfire affected field sampling programs under the CFMP by preventing safe access to some sites (e.g., due to presence of danger trees) or burning of plants and berries that would normally be sampled at a given site. Due to access limitations, field sampling programs were carried out later in the field season (e.g., late August into September) in 2023 compared to previous years.

SAMPLING UNDER THE CFMP IN 2023

Sampling for metal concentrations in 2023 under the CFMP included the following:

- Air quality: dustfall samples (as a surrogate for metals associated with inhalable particulate matter in air) were collected at four sites close to the mine site (near-field sites) and four control sites away from the mine site. These sites are also sampling sites for soil, plants, and berries.
- Soil: soil samples were collected at a total of 42 sites (36 regular sampling sites and 6 new sampling sites). Three sites that are normally part of the CFMP sampling program could not be sampled in 2023 due to the fire that occurred in July 2023.
- Plants and berries: a total of 40 willow samples, 26 sedge samples, and 14 Labrador tea samples were collected, while only 2 berry samples were collected (berries were not available for sampling due to a hot, dry summer). Three sites that are normally part of the CFMP sampling program could not be sampled in 2023 due to the fire that occurred in July 2023. Plant and berry samples were collected at the same sites and at the same time as the soil samples.
- Small mammals: a total of 32 deer mice and 25 red-backed voles were sampled at the same sites where dustfall samples were collected (4 sites near the mine site, 4 control sites), with liver and carcass (rest of the body minus the liver) sent to the lab for tissue metal analysis.
- Surface water: a total of 160 water samples were collected at control sites (locations either upstream of the mine site or located in an adjacent watershed, outside of the influence of the mine site) and 378 water samples were collected at impact site (locations downstream or downgradient of the mine site).
- Fish tissue: a total of 116 fish tissue samples were collected, with 59 sampled from potential impact sites and 57 sampled from control sites.

RESULTS OF CFMP SAMPLING IN 2023

Results of sampling in 2023 are summarized for metals in air (dustfall), soil, plants, berries, surface water, and fish tissue in the following paragraphs, in the context of the adaptive management framework for the CFMP.

The adaptive management framework in the CFMP identifies triggers (called numeric performance metrics, NPMs) to define no, low, medium, and high action levels based on comparison of the sampling results with the triggers defined for metal in air, soil, plants and berries, surface water, and fish tissue. Each action level has different "management responses" that identify actions that are needed to identify and address causes of unexpected Mine-related changes. If the trigger levels are not exceeded, the action level is defined as "none" and no changes to mitigation are needed as mitigation measures are working in the way they were expected to perform. There are three types of triggers (NPMs):

- Guideline NPMs: guidelines defined by regulatory agencies (such as Health Canada or BC Ministry of Environment and Climate Change Strategy) that are protective of human health for air, soil, plants, berries, surface water, and fish.
- Baseline NPMs: concentrations defined based on baseline datasets for air, soil, plants, berries, surface water, and fish.
- Predicted NPMs: concentrations defined based on predictive modelling for the Mine for air, soil, plants, berries, surface water, and fish.

For metals in air (based on dustfall metal results), average concentrations of all parameters in 2023 were lower than the air quality Guideline NPMs. However, manganese and lead concentrations were found to be higher than the Baseline and Predicted NPMs. Statistical analysis found that changes in manganese concentrations were significantly higher at control sites (away from the mine site) than at impact sites near the mine site and changes in lead concentrations were not significantly different. Based on results of 2023 monitoring, the trigger level in the adaptive management framework for air quality is "Low". However, no specific action is recommended based on 2023 dustfall monitoring results because concentrations higher than the Predicted NPMs are likely an artefact of the methods used to estimate metal concentrations in predictive modelling for air and because changes in concentration of manganese was higher at control sites, not impact sites, which is not a Mine effect.

For soil, average concentrations of metals were lower than Baseline, Predicted, and Guideline NPMs for soil. Similarly for plants, average concentrations of metals were lower than Baseline, Predicted, and Guideline NPMs for plants.

For berries, interpretation of the results is difficult as only two samples were obtained in 2023 because there were not many berries available for sampling (hot, dry summer). Other than arsenic in one berry sample, all metals were below the Baseline, Predicted, and Guideline NPMs for berries. The arsenic concentration in one huckleberry sample that was higher than the NPMs appears to be an outlier (an unusual result), as it is substantially higher than any arsenic concentration measured previously and significant changes in arsenic concentrations were not found in air (dustfall), soil, or plants. Thus, based on 2023 monitoring results, the trigger level in the adaptive management framework for soil, plants, and berries is "None".

There were no Mine discharges to surface water in 2023. Average concentrations of metals in surface water were below Guideline NPMs for water quality. Except for iron, average concentrations of metals were below the Baseline and Predicted NPMs. Based on statistical analysis, the change in iron concentrations was not significant and changes in the mean concentration were likely driven by a few samples with high concentrations and are not indicative of Mine-related changes to water quality. Assignment to a trigger level for water quality in the adaptive management was not completed because it is based on monitoring results from two consecutive years of sampling that indicate an exceedance of the Baseline or Predicted NPMs. No immediate action is recommended based on results of 2023 monitoring in surface water because:

- There were no Mine discharges to surface water in 2023, so changes in concentrations of metals are not likely to be an effect of the Mine;
- Iron concentrations were below all NPMs in 2022;
- Iron was the only parameter in surface water with average concentrations higher than Baseline and Predicted NPMs in 2023;
- The change in iron concentration was not significant in 2023; and
- Average iron concentrations measured in surface water in 2023 are 25 times lower than the drinking water quality guideline.

For fish tissue, average concentrations were lower than Baseline, Predicted, and CF Guideline NPMs for fish tissue. Thus, based on 2023 monitoring results, the trigger level in the adaptive management framework for fish tissue is “None”.

Sampling of small mammals in 2023 was completed to provide baseline or pre-Operations phase data on tissue concentrations of COPCs, as a foundation for future monitoring. There are no human health-based NPMs based on rodent tissue sampling.

CONCLUSION

Based on the results of the 2023 monitoring programs under the CFMP, no adjustments to current mitigation measures are required at this time to protect human health. The results of the 2023 monitoring program are in line with what would be expected, given the Early Works and other construction activities in 2023, as there were no Mine discharges of effluent to surface water.

Sampling under the CFMP or linked monitoring programs is proposed for 2024, including the following:

- Air quality for criteria air contaminants, as described in the Air Quality and Fugitive Dust Management Plan;
- Fish tissue sampling, as described in the Aquatic Effects Monitoring Plan; and
- Surface water quality, as described in the Aquatic Effects Monitoring Plan.

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ACRONYMS AND ABBREVIATIONS

Term	Description
Aboriginal Groups or Indigenous nations	Lhoosk'uz Dené Nation, Ulkatcho First Nation, Nadleh Whut'en First Nation, Saik'uz First Nation, Stellat'en First Nation and Nazko First Nation (as defined in the Project's Environmental Assessment Certificate #M19-01)
AEMP	Aquatic Effects Monitoring Plan
ANOVA	Analysis of variance
Application/EIS	Application for an Environmental Assessment Certificate/Environmental Impact Statement
AQ	Air Quality
AQDMP	Air Quality and Fugitive Dust Management Plan
BA	Before-after
BACI	Before-after-control-impact
BC	British Columbia
BC ENV	Ministry of Environment and Climate Change Strategy
BW Gold	BW Gold Ltd.
CAC	Criteria air contaminants
CALA	Canadian Association for Laboratory Accreditation
CFSN	Carrier Sekani First Nation
CFMP	Country Foods Monitoring Plan
CI	Control-impact
COA	Certificate of Analysis
COPC	Contaminant of potential concern
CSM	Conceptual site model
CSR	Contaminated Sites Regulation
DL	Detection limit
DS	Decision Statement
DW	Drinking water
DWQG	Drinking water quality guideline
EAC	Environmental Assessment Certificate
EMB	Environmental Management Board
EPC	Exposure point concentration
FDR	False discovery rate
FSR	Forest service road

Term	Description
ha	Hectares
HC	Health Canada
HHRA	Human health risk assessment
HHTAM	Human health triggers for adaptive management
Indigenous groups or Aboriginal Peoples	Ulkatcho First Nation, Lhoosk'uz Dené Nation, Nadleh Whut'en First Nation, Stellat'en First Nation, Saik'uz First Nation, Nazko First Nation, Skin Tyee Nation, Tŝilhqot'in Nation, Métis Nation British Columbia, and Nee-Tahi-Buhn Band (as defined in the Project's federal Decision Statement)
km	Kilometre
LDN	Lhoosk'uz Dené Nation
LSA	Local Study Area
mg/L	milligrams per liter
Mine, the	Blackwater Mine
Mtpa	Million tonnes per annum
NPM	numeric performance metrics
PASS	Passive air sampling system
PM	Particulate matter
Project, the	Blackwater Gold Project
Proponent	BW Gold LTD.
QA/QC	Quality assurance/quality control
RIB	Rapid Infiltration Basin
RPD	Relative percent difference
SQ	Soil Quality
SWQ	Surface water quality
t/d	Tonnes per day
TSF	Tailings storage facility
UCLM	Upper confidence limit of the mean
UFN	Ulkatcho First Nation

1. INTRODUCTION

1.1 BACKGROUND

The Blackwater Mine (the Mine) is an open pit gold and silver mine currently under construction, located in central British Columbia (BC) 160 kilometres (km) southwest of Prince George, BC. The Mine is located within the traditional territories of Lhoosk'uz Dené Nation (LDN), Ulkatcho First Nation (UFN), Skin Tyee Nation and Tsilhqot'in Nation. The Kluskus and Kluskus-Ootsa Forest Service Roads (FSR) and Mine transmission line cross the traditional territories of Nadleh Whut'en First Nation, Saik'uz First Nation, and Stellat'en First Nation (collectively, the Carrier Sekani First Nations) as well as the traditional territories of the Nazko First Nation, Nee-Tahi-Buhn Band, Cheslatta Carrier Nation, and Yekooche First Nation.

The Mine will have a life of mine of 23 years and will ramp up production in three phases: Year 1-5: 15,000 tonnes/day (t/d) (5.5 Million tonnes per annum [Mtpa]); Year 6-10: 33,000 t/d (12 Mtpa); and Year 11-23: 55,000 t/d (20 Mtpa). Ore will be processed in a plant by a combined gravity circuit and whole ore cyanide leach to recover gold and silver. The gold and silver will be recovered into a gold-silver doré product. Mine layout at the end of the Operations phase is found on Figure 1.1-2.

The Mine received Environmental Assessment Certificate #M19-01 (EAC) on June 21, 2019 under the 2002 *Environmental Assessment Act* and a Decision Statement (DS) on April 15, 2019 under the *Canadian Environmental Assessment Act, 2012* approving the Blackwater Project, with conditions.

The conditions include several environmental monitoring and management programs with the goal of protecting the environment and human health. The Country Foods Monitoring Program (CFMP; ERM 2022) is one such program and addresses all or some aspects of the following provincial EAC and federal DS conditions:

- in the EAC:
  - Condition 41: Country Foods Monitoring Plan;
  - Condition 2: Plan Development;
  - Condition 3: Adaptive Management; and
  - Condition 4: Consultation.
- in the DS:
  - Conditions 6.5, 6.11, 6.12 and 6.15: Health and Socio-economic Conditions and Current Use of Lands and Resources for Traditional Purposes;
  - Conditions 2.3 and 2.4: Consultation;
  - Conditions 2.5, 2.6, 2.7, 2.8, 2.9, and 2.10: Follow-up and Adaptive Management; and
  - Conditions 2.11, 2.12, and 2.13: Annual Reporting.

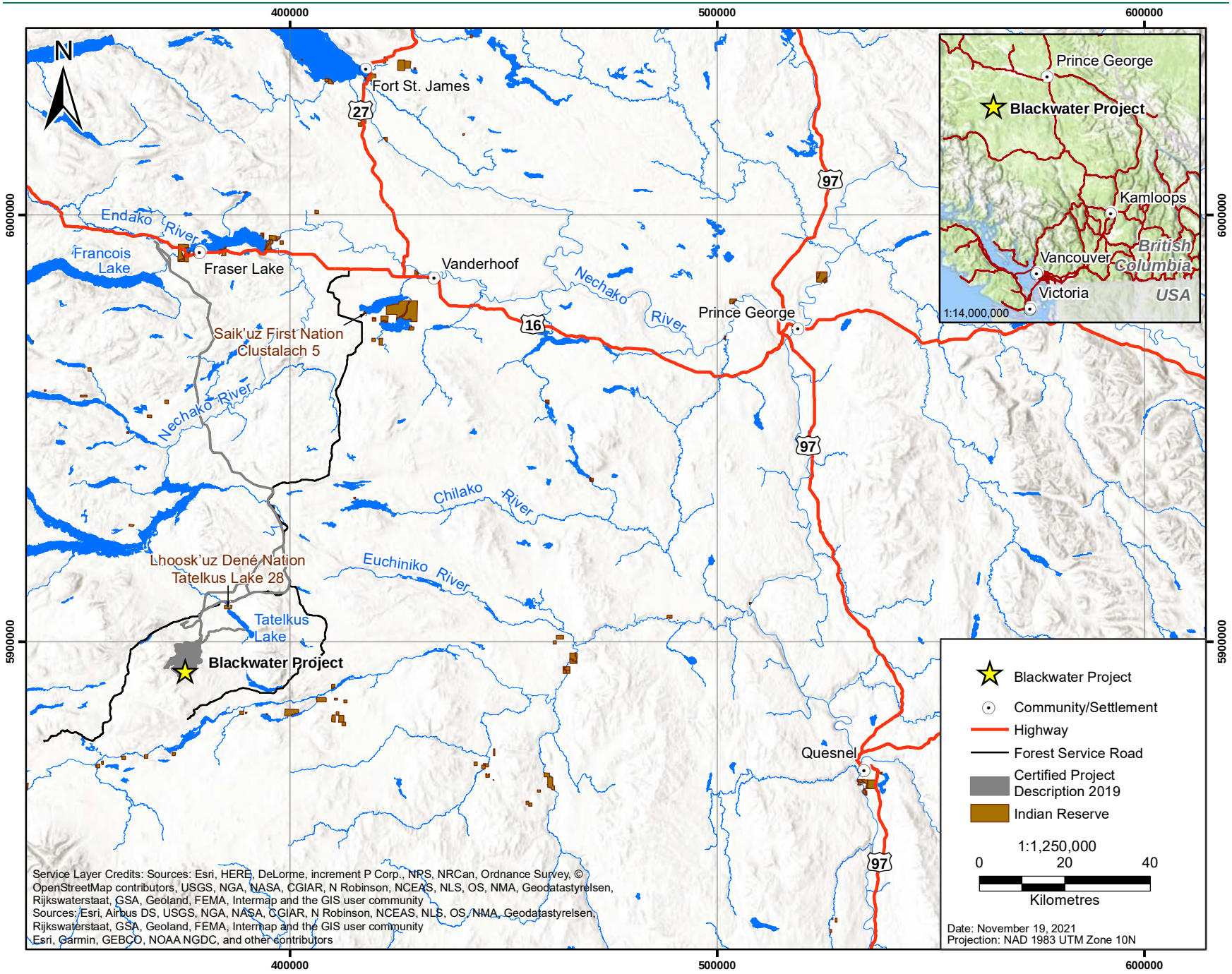


Figure 1.1-1: The Blackwater Gold Project Location

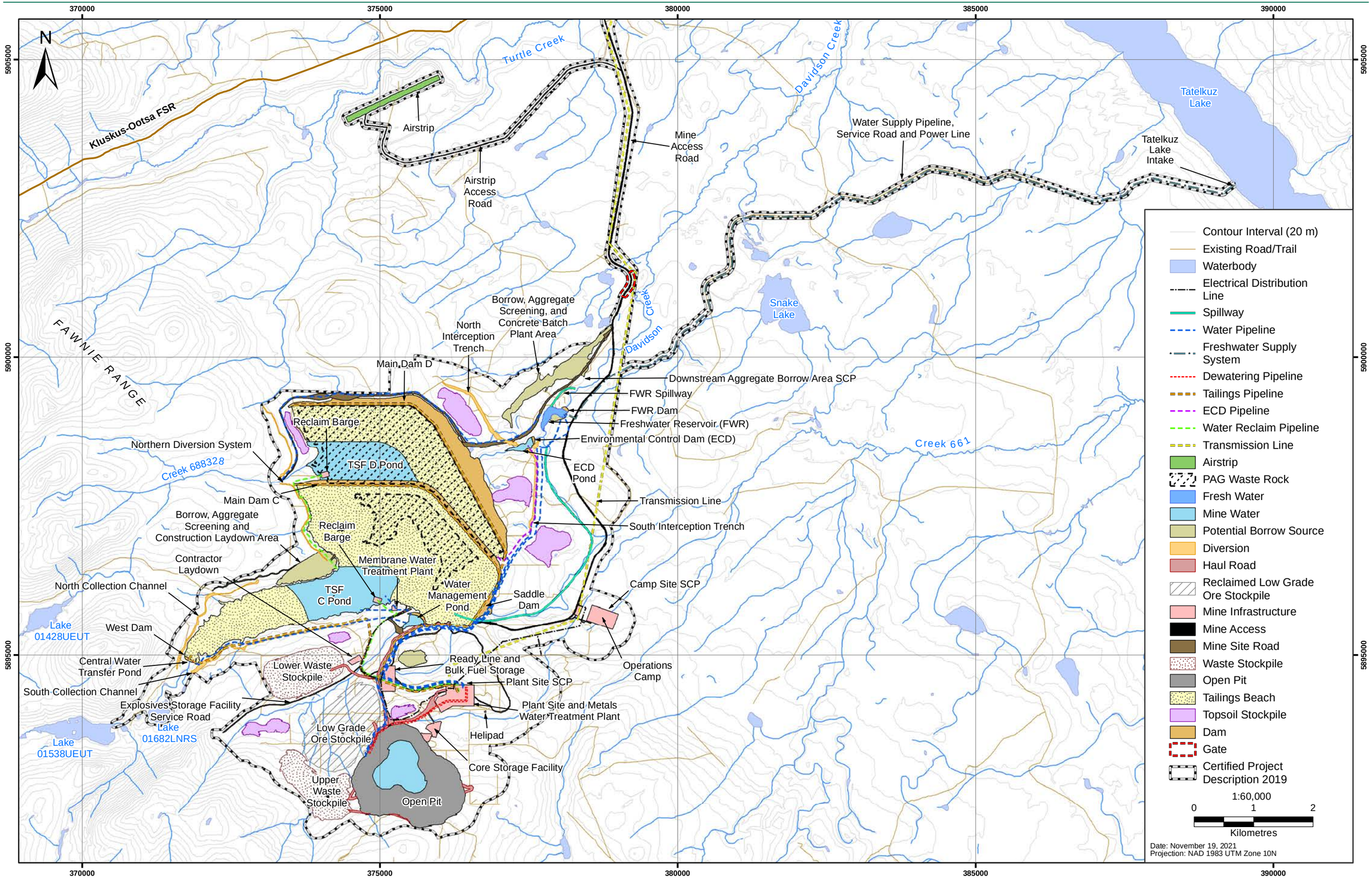


Figure 1.1-2: The Blackwater Gold Project Mine Plan

Baseline data collection and monitoring programs were conducted up until the end of September 2023 in support of the CFMP, including baseline sampling of water quality, air quality (dustfall and dust metals), soil, plant and berry tissues, and fish tissues. Results of the baseline monitoring programs are provided in other reports including the following:

- 2021-2022 Cumulative Dustfall, Soil, and Plant Metal Concentration Baseline Report (ERM 2023b);
- 2023 Aquatic Effects Monitoring Program Interpretive Report (ERM 2024);
- Chapter 2 of the Joint Application for *Mines Act*/*Environmental Management Act* permits (BW Gold 2022b) for Baseline air quality data for criteria air contaminants (CACs); and
- 2022 Air Quality and Fugitive Dust Management Annual Report (BW Gold 2023).

This report is the second Annual Report under the CFMP. The first Annual Report was submitted on March 31, 2023 for the monitoring period of October 1 to December 31, 2022 (ERM 2022). Reporting was triggered under Condition 5 of the EAC, which sets out timelines for reporting requirements. BW Gold must submit a report to the attention of the EAO and Indigenous groups on the status of compliance with EAC #M19-01 before March 31 in each year after the start of Construction. Since BW Gold began limited Early Works construction activities at the mine site in October 2022, the second annual report under the CFMP for the period from January 1, 2023, to December 31, 2023, is required to be submitted by March 31, 2024.

Of the sampling described under the CFMP (see Section 4 of the CFMP), surface water quality, air particulate matter (dustfall), soil, vegetation (plant and berry) tissue, small mammal tissue, and fish tissue sampling was conducted during the monitoring period. This CFMP Annual Report presents results of monitoring these environmental media and tissues for the 2023 monitoring period.

1.2 MINE ACTIVITIES COMPLETED IN 2023

The Mine initiated limited Early Works construction activities (including clearing, grubbing ditching, site levelling at the Plant Site location, installation of sediment and erosion controls, and construction of ditches, diversions, and a sediment control pond) at the mine site in October 2022. During the period from October 1, 2022 to December 31, 2022, only surface water quality samples were collected and results were reported in the *Country Foods Monitoring Plan: Environmental Assessment Certificate Condition 41 Annual Report 2022* (ERM 2023d).

From January to December of 2023, the Mine continued with Early Works construction activities and other construction. Table 1.2-1 provides an overview of construction activities that were carried out from January 1, 2023 to the end of December 2023 at the Mine. Other construction activities (e.g., major works, transmission line construction in late 2023, site upgrades and improvements) are detailed in the Annual Reclamation Report (BW Gold, 2024).

BW Gold received an amended EMA Permit PE-110652 and PE-110650 in May, 2023, authorizing discharge of effluent to surface water and groundwater from the Blackwater mine site and discharge of air contaminants to the atmosphere from the mine respectively. There were no authorized effluent discharges from the Mine to surface water, however, a discharge to ground occurred from the Rapid Infiltration Basin (RIB) during the 2023 monitoring period.

TABLE 1.2-1 OVERVIEW OF EARLY WORKS COMPONENTS AND ACTIVITIES AND ACTIVITIES COMPLETED BETWEEN JANUARY 1 AND DECEMBER 31, 2023

<table>
<tr><th>Component/ Activity</th><th>Description</th><th>Activities Completed January 1 to December 31, 2023</th></tr>
<tr><td>Mine Access Road</td><td>• Kluskus-Ootsa Forest Service Road (FSR) km 124.5 to Plant Site
• Kluskus-Ootsa FSR to mine site boundary to be permitted under Special Use Permit
• Mine site boundary to mine site terminus to be permitted under Mines Act
• 16 km single lane
• Balanced cut and fill; no bedrock excavation/blasting
• Located on mineral tenure held by BW Gold
• Approximately 100 ha of disturbance; partially cleared</td><td>• No work completed.</td></tr>
<tr><td>Mine Access Road Bridges</td><td><table>
<tr><th>Bridge</th><th>Length (m)</th><th>Location (from the Kluskus-Ootsa FSR)</th><th>Description</th></tr>
<tr><td>Bridge 1 (off mine site)</td><td>18.3</td><td>0.490 km</td><td>Steel concrete composite on precast spread footing</td></tr>
<tr><td>Bridge 2 (off mine site)</td><td>13.0</td><td>5.190 km</td><td>Slab girder bridge on precast spread footing</td></tr>
<tr><td>Bridge 3 (on mine site)</td><td>18.3</td><td>6.7015 km</td><td>Skewed precast composite concrete deck panel. Steel Superstructure. Precast concrete spread footings.</td></tr>
<tr><td>Bridge 4 (on mine site)</td><td>14.0</td><td>10.320 km</td><td>Skewed precast concrete slab bridge. Precast concrete spread footings.</td></tr>
<tr><td>Bridge 5 (on mine site)</td><td>12.0</td><td>13.790 km</td><td>Skewed precast concrete slab bridge. Precast concrete spread footings.</td></tr>
</table></td><td>• No work completed</td></tr>
<tr><td>Mine Site Roads (includes mine haul roads, mine site service roads, exploration road upgrade within mine site)</td><td>• Clearing, grubbing and construction of roads to proposed Early Works on mine site
• Approximately 178.9 ha of disturbance
• Estimated 7 clear-span bridges for fish-stream crossings
• No bedrock excavation/blasting</td><td>• 37 Ha of logging/clearing completed in 2023.
• 6 clear span bridges replaced with suitable construction equipment rated structures (11.6 km and 12.9 km on C-Trail, A-Trail Mine Creek Crossing, K-Trail Bridge, and 2 bridges on M-Trail.</td></tr>
</table>

Component/ Activity	Description	Activities Completed January 1 to December 31, 2023
Borrow Sources	Clearing of trees for two borrow sources: • Within footprint of the future Environmental Control Dam area – approximately 13.7 ha of disturbance • Southern borrow in TSF – approximately 7.5 ha of disturbance	• 15Ha logged/cleared in borrow area south of TSF.
Tailings Storage Facility	Clearing of trees in 3 areas: • TSF Site C starter dam footprint: 109.8 ha • Aggregate screening site: 9.3 ha	• 110 Ha logged and cleared in 2023 for TSF. 24.7 Ha logged and cleared for the aggregate screening site.
Water Management Structures	• Clearing of trees along water diversion channel route northeast of Site C starter dam: 47.1 ha of surface disturbance	• WMP – 10.7 Ha logged and cleared
Ore Stockpile Sites	• Adjacent to Open Pit and Plant Site • Clearing of trees • Future LGO stockpile base 4.5 ha of surface disturbance • Future high-grade ore stockpile base 3.1 ha of surface disturbance	• No work completed.
Open Pit and Overburden Dump Site	• Clearing of trees • Open pit stripping of overburden on 20.5 ha • Stockpile pit stripping overburden on 11.1 ha of surface disturbance	• No work completed
Water Supply	• Groundwater well east of camp provides sufficient water for portable water treatment plant for potable water • If necessary, a second groundwater well will be drilled in this location • No additional site clearing required	• TW13-01 pipeline to camp
Ancillary Building Sites	Clearing at multiple sites: • Explosives magazine site: 3.1 ha of surface disturbance • Truck shop and mine offices: 18.6 ha of surface disturbance • Operational camp area: 33.9 ha of surface disturbance • Existing 250-person camp: 0 ha	• Explosives Mag – complete logging/clearing 5.4 Ha • Truck shop and mine offices – complete 6 Ha • Ops camp – no work completed.
Plant Site	Clearing, grubbing, site levelling, soil, overburden salvage. No bedrock excavation/blasting: • Plant Site: 24.4 ha of surface disturbance	• Work completed – site was logged cleared and partially levelled in 2022, remaining work was completed in 2023. 29 Ha.

BW Gold has a permitted diesel-fired putrescible waste incinerator (EMA Authorization #106530), which is located near the exploration camp. The incinerator had a trial run in 2023 to ensure that it is in good working condition. In 2023, the incinerator was not utilized as a part of the Waste Management Plan at the BW Gold Mine. No new point source emissions to air occurred during this time as construction of the mine site progressed (Artemis Gold 2024). Activities in 2023 that could have resulted in emissions of fugitive dust (non-point source emissions) were the following:

- Land clearing and earthworks for the construction camp and plant site;
- Construction and use of unpaved access and mine roads;
- Material handling/re-handling at aggregate and topsoil stockpiles;
- Parking lot and road grading;
- Construction of water management structures (e.g., diversion channels);
- Aggregate extraction from borrow pits;
- Borrow and aggregate crushing and screening; and
- Concrete Batch Plants.

1.3 WILDFIRE ACTIVITY AND SAMPLING SITE ACCESS

In 2023, the Davidson Creek fire (July Wildfire; Fire Number: G41493; BC Wildfire Service) was discovered west of the Mine on July 10, 2023, impacting various sampling sites. The Blackwater camp was evacuated by provincial order due to an uncontrolled wildfire in the area later that day. The site was closed for all non-essential employees and activities were resumed in a staged approach starting July 24, with construction resuming August 3. With respect to the Mine footprint, the fire extended from approximately kilometre marker (KM)8–KM16 along the Blackwater Access Road. Some building structures were lost to the fire, including offices located directly across from the main facilities. The fire primarily affected standing timber and understory vegetation along smaller Mine roads on the western area of the mine site. The mine experienced smoke from the Davidson Creek fire and regional fires throughout the summer months.

The wildfire burnt soil, plant, and berry sampling sites that had previously been sampled during baseline sampling programs under the CFMP, specifically:

- Three (CFMP-SV-003, -015, and -031) out of the original 39 soil and vegetation sampling sites were not accessible in 2023 due to safety concerns or other access limitations.
    - Site CFMP-SV-003 was overgrown and had 1.5 km of burnt forest on either side of the overgrown access road that had not been cleared for access (Photo 1.3-1).
    - Mid-field site CFMP-SV-015 had grown in and was not accessible by helicopter (no safe landing site) or by road. Sites CFMP-SV-003 and -015 were, therefore, not sampled.
    - Site CFMP-SV-031 was too dangerous to access due to effects from the fire (e.g., unstable danger trees) and was not sampled.
- Site CFMP-SV-004 was cleared by danger tree assessors and was accessible for soil and vegetation sampling, although vegetation had largely been burnt except for sedges (Photo 1.3-2).

Photo 1.3-1 Overgrown and burnt road to site CFMP-SV-003. Site was not accessible for sampling.

Photo 1.3-2 Site CFMP-SV-004 and view to south.

2. OVERVIEW OF THE CFMP

2.1 OBJECTIVES AND STRUCTURE OF THE ANNUAL REPORT

People may be exposed to contaminants of potential concern (COPCs) through inhalation of gases or particulates in air or ingestion of surface water, soil (incidental), or country foods such as plants and berries, fish, mammals, or birds. As a result of mining, mineral processing, or related activities, changes in concentrations of COPCs in environmental media, like surface water or soil, can influence the concentrations of the COPCs in plants, berries, fish, mammals, or birds (from uptake of COPCs through ingestion of environmental media or food) that may then be eaten by people as country foods. If concentrations or exposures are high enough, there is the potential for human health to be affected by exposure to the COPCs in environmental media or country foods.

COPCs were identified in the Conceptual Site Model (CSM; Entia 2022a) and the Human Health Risk Assessment (HHRA; Entia 2022b) and are metals, as defined in Section 3, Table 3-1, of the CFMP (ERM 2022). Criteria air contaminants (including particulate matter PM_{10} and $PM_{2.5}$, SO_2, NO_2) are not COPCs based on the results of the CSM (Entia 2022a) and the HHRA (Entia 2022b) and thus will not be included in the reporting under the CFMP, but are reported under the Air Quality and Fugitive Dust Management Plan (AQDMP; ERM 2023a).

No adverse effects to Indigenous or non-Indigenous health due to development of the Project were identified in the environmental assessment. The purpose of the CFMP Annual Report is to identify whether there have been changes in COPC concentrations in air, surface water, soil, and country foods as a result of the Mine that weren't predicted and whether these changes pose potential risk to people. As stated in the federal DS, objectives of the CFMP over the life of the mine are:

- "*to verify the accuracy of the environmental assessment as it pertains to adverse environmental effects of the Designated Project on the health of Indigenous Peoples caused by changes in concentrations of contaminants of potential concern in water, soil, vegetation and wildlife, including fish*" (Condition 6.11 of the Decision Statement). No adverse effects to Indigenous or non-Indigenous health were identified in the environmental assessment, so the CFMP is intended to confirm that assessment.
- to identify "*levels of environmental change relative to baseline conditions that would require the Proponent to implement modified or additional mitigation measure(s)*" (Condition 2.5.4 of the Decision Statement).

As such, annual reports will be submitted under the CFMP with the objectives:

- to determine the short- and long-term effects of the Project on the aquatic and terrestrial environments with respect to the quality of country foods;
- to confirm the quantitative predictions made in the HHRA updated for the optimized Project (Entia 2022b), submitted as part of the provincial Joint *Mines Act*/*Environmental Management Act* permits application;
- to assess the efficacy of mitigation measures that are used to minimize the effects of Project-related activities on the aquatic and terrestrial environments and country foods; and
- to identify the need for additional mitigation measures to reduce or eliminate mine-related effects.

This second CFMP Annual Report consists of the following sections:

- Section 1 – Introduction: includes background information and Mine activities during the reporting year.
- Section 2 – Overview of the CFMP: a description of the CFMP objectives, monitoring framework, and linkages to other management and monitoring plans.
- Section 3 – Sampling under the CFMP: summary of environmental or biological media sampled in the reporting year and any deviations or modification to the sampling methods or frequencies identified in the CFMP.
- Section 4 – Data analysis and interpretation: presentation of results of monitoring conducted in the CFMP study area during the reporting year, including statistical summaries and comparison to benchmarks, with interpretation of the results.
- Section 5 – Adaptive management and action level: an overview of the CFMP trigger response framework and identification of the action levels based on monitoring results for the reporting year, including identification of any recommended changes to monitoring or mitigation measures.
- Section 6 – Planned CFMP sampling program for 2024.
- Section 7 - Summary and recommendations: summary of results, recommendations, and any follow up actions.

Additional supporting information is included in the following appendices:

- Appendix A: Raw data for 2023 Construction monitoring period;
- Appendix B: Conversion tables of COPC concentrations in dustfall to COPC concentrations in $PM_{10;}$
- Appendix C: Statistical comparisons of COPC concentrations in environmental media;
- Appendix D: Summary statistics for COPC concentrations in individual plant species;
- Appendix E: Figures showing results of monitoring;
- Appendix F: Power analysis for small mammal tissue sampling; and
- Appendix G: Results for relative percent difference calculations.

2.2 FRAMEWORK FOR THE CFMP

The CFMP is one of numerous monitoring and management plans and programs for the Mine that use an adaptive approach to identifying, understanding, and reducing the magnitude, frequency, and extent of potential effects of Mine -related activities on the environment and human health.

The overall framework for monitoring, evaluating, and adaptively managing potential effects from the Mine to human health is presented in Figure 2.2-1. This adaptive management framework has been incorporated into the CFMP and serves as an early warning system for identifying and addressing potential effects before they reach levels of concern for human health.

FIGURE 2.2-1 ADAPTIVE MANAGEMENT FRAMEWORK

The components of the adaptive management framework are:

Plan: The CFMP study design considered the requirements for the CFMP to meet EAC Conditions 3 and 41 and DS requirements 2.5 to 2.10. BW Gold has engaged and will continue to engage with Indigenous groups and relevant federal and provincial authorities on these measures and programs.

Do: Implement the mitigation measures as described in the mitigation and management plans for the Mine.

Monitor: The CFMP includes monitoring programs to determine if, after mitigations and management has been applied, Mine-related effects to the aquatic or terrestrial environments occur.

Adjust: Quantitative human health-specific trigger (also called numeric performance metric; NPM) concentrations (ERM 2023f) are used to identify the level of Mine-related change relative to predicted conditions, baseline conditions, and other benchmarks such as environmental quality guidelines to determine the appropriate action level and management responses. Management responses may include additional monitoring or studies, adjustment of existing mitigation measures, or identification and implementation of new mitigation measures.

Additional information about the monitoring program design can be found in Section 4 of the CFMP and more details about the adaptive management framework can be found in Section 6 of the CFMP.

2.3 CFMP STUDY AREA

The CFMP study area is the same as the study area used in the updated HHRA (Entia 2022b). The CFMP study area is based on an overlay of the air quality modelling domain, the surface water quality local study area (LSA), and the terrestrial LSA used in the Application/EIS and in the Joint Application. The air quality, surface water quality and terrestrial study areas were used as the foundation for the CFMP study area because they represent key transport or exposure pathways between COPCs in environmental media and human receptors. The LSAs or modelling domains were used (rather than the larger, regional study areas) because any effects due to the Mine are likely to be highest in the areas closest to Mine sources of COPCs at the mine site. Since the air quality modelling domain is larger than the other two LSAs, the CFMP study area is effectively equivalent to the air quality modelling domain (Figure 2.3-1).

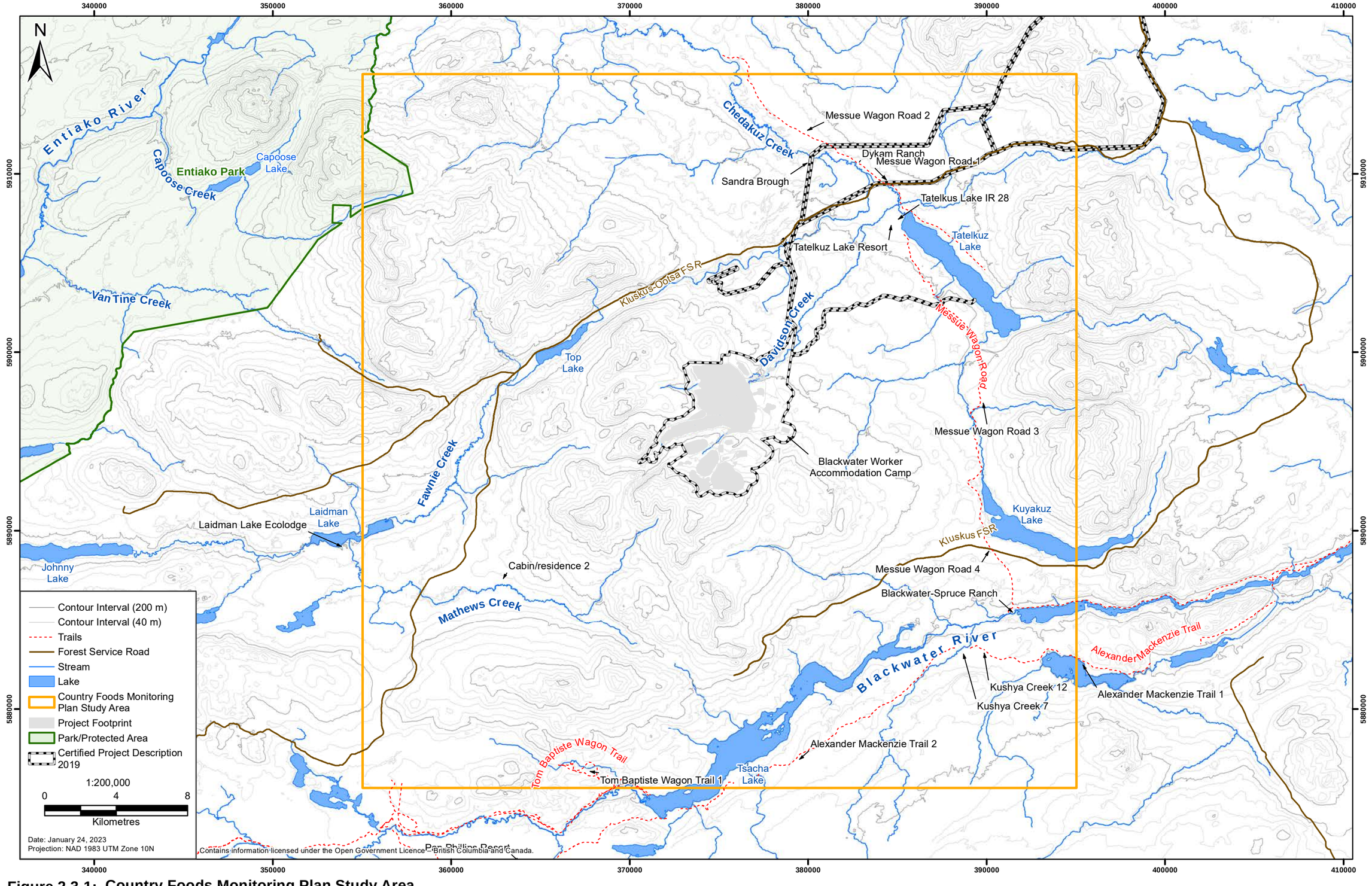


Figure 2.3-1: Country Foods Monitoring Plan Study Area

Some water quality baseline and monitoring sites (e.g., CC-30, CC-40) were located outside of the CFMP study area but were included in the CFMP reporting as they are of interest to the Carrier Sekani First Nation (CFSN) and are located downstream of the mine site (far-field impact sites in the Aquatic Effects Monitoring Plan [AEMP]).

2.4 LINKAGES TO OTHER MANAGEMENT AND MONITORING PLANS

A series of management and monitoring plans have been developed for the Mine. Many of these plans outline monitoring commitments relevant to the CFMP objectives and, where possible, the sampling requirements under other plans align with the sampling requirements for the CFMP. The CFMP relies on the monitoring and associated results from several of the plans, as follows:

- Aquatic Effects Monitoring Plan (AEMP; BW Gold 2022a):
  - Data collected under the AEMP will be used to fulfill requirements for CFMP sampling of water and fish tissue (EAC Condition 41(d)(vi) and 41(d)(vii), federal Decision Statement condition 6.11).
  - The AEMP outlines requirements for monitoring of water and fish tissue at various sites in the downstream aquatic receiving environment and at control sites.
  - Water and fish (juvenile Rainbow Trout) tissue samples will be co-collected at stream sites including near-field impact sites in Davidson Creek (DC-05 and DC-15) and Creek 661 (661-05 and 661-10), and reference sites in Creek 705 (705-05, 705-10) and a Fawnie Creek tributary (FC-01). Sampling will also be done in Turtle Creek (TC-01, TC-05, and TC-10) once the airstrip is constructed for the Mine.
  - Water and fish (adult Kokanee, Rainbow Trout, and Mountain Whitefish) tissue samples will be co-collected at lake sites including Tatelkuz Lake (potential impact site) and Kuyakuz Lake (control site).
- Air Quality and Fugitive Dust Management Plan (AQDMP; ERM 2023a):
  - Data collected under the AQDMP will be used to fulfill requirements for CFMP sampling of meteorological conditions and CACs (EAC Condition 41(d)(iii), federal Decision Statement condition 6.12).
  - The AQDMP outlines requirements for monitoring of meteorological conditions (e.g., air temperature, relative humidity, precipitation, wind speed and direction, barometric pressure, snow depth, net radiation, and solar radiation) in two locations.
  - The AQDMP also includes monitoring of CACs including particulate matter (PM) of less than 10 microns in diameter (PM_{10}) and less than 2.5 microns in diameter ($PM_{2.5}$), nitrogen dioxide (NO_2), and sulfur dioxide (SO_2).

3. SAMPLING AND DATA ANALYSIS METHODS UNDER THE CFMP IN 2023

Early Works construction activity began in October 2022. Construction activity continued from January to December 2023. Of the sampling described under the CFMP (see Section 4 of the CFMP), the following environmental media and country foods were sampled between January and December 2023: air (dustfall), soil, vegetation (plants and berries), surface water, fish tissues, and small mammal tissues. The Indigenous-led program for sampling and laboratory analysis of game animals that are hunted or trapped in the CFMP study area was initiated in 2023 in time for the fall hunting season.

3.1 AIR QUALITY (DUSTFALL)

Monitoring methodology for air quality is described in detail in Section 9.3 of the AQDMP (ERM 2023a) and in the AQDMP Annual Report (Artemis Gold 2024). As described in Section 2, CACs (including particulate matter PM_{10} and $PM_{2.5}$, SO_2, NO_2) are not COPCs based on the results of the CSM (Entia 2022a) and the HHRA (Entia 2022b), but are covered under the AQDMP (ERM 2023a). However, inhalable metals (i.e., metals attached to PM_{10}) were included as COPCs in the HHRA (Entia 2022b) and are covered under the CFMP (ERM 2022).

In September 2022, Stantec provided training to three BW Gold employees from the Environmental department on the operation of the Thermo Scientific Partisol-FRM Model 2025i-D PM sampler (Partisol) and particulate matter sampling. Details on the training are provided in the 2022 AQDMP Annual Report (BW Gold 2023). Additional training on this unit was provided by Stantec in September 2023 and again by CD Nova in November 2023.

The Partisol sampler was installed adjacent to the current exploration camp in Q1 of 2023. Fifty-four (54) coarse and fine particulate matter, PM_{10}, and $PM_{2.5}$, samples were obtained at approximately weekly intervals in March/April and November/December 2023, and every third day between May and October 2023 from the Partisol sampler. Particulate matter concentration data (PM_{10}, and $PM_{2.5}$) are presented in the AQDMP Annual Report (Artemis Gold 2024).

TABLE 3.1-1 2023 CFMP DUSTFALL SAMPLING SITES

Site ID	UTM Coordinates		Site Classification	
	Easting	Northing	Near- Field (Impact)	Control
CFMP-SV-004	371485	5896139	X	
CFMP-SV-006	374417	5891796	X	
CFMP-SV-014	379289	5898605	X	
CFMP-SV-019	377967	5900722	X	
CFMP-SV-024	375822	5907513		X
CFMP-SV-027	386022	5902891		X
CFMP-SV-032	368437	5880920		X
CFMP-SV-040	388451	5905960		X

A Passive Air Sampling System (PASS) for the collection of NO_2 and SO_2 concentrations was set up alongside the Partisol sampler. Data are reported in the annual report under the AQDMP.

Analysis results for dustfall metal samples collected from eight stations in September of 2023 are presented in this CFMP Annual Report. Dustfall collectors were deployed from September 3 to 8, 2023. ERM's sampling crew deployed five out of eight dustfall containers, while the remaining three dustfall containers were set up by the Blackwater environmental team. Four dustfall stations were located in the near-field area at sites CFMP-SV-004, -006, -014, and -019; and four sites were located in the control area at sites CFMP-SV-024, -027, -032, and -040. Site 004 had been affected by the July 2023 wildfire, but dust collectors were set up after fire activity had ceased and it was safe for crews to enter the area. Sites are shown on Figure 3.1-1 and listed in Table 3.1-1.

3.1.1 DEVIATIONS FROM CFMP SAMPLING METHODOLOGY FOR AIR QUALITY

Generally, sampling of air quality (dustfall) was completed as described in Section 4.3 of the CFMP. However, due to the Davidson Creek wildfire and the consequent evacuation of the mine site for much of July, the 2023 field season was compressed. As a result, the exposure of the dust cannisters was shortened from the minimum period of 30 days described in Section 4.2.2 of the CFMP to 12 to 24 days (depending on site) to ensure safety of field crews. This may have contributed to some dustfall metal and total dustfall amounts being non-detectable in some samples thereby increasing uncertainty, as described in Section 4.2.

3.2 SOIL QUALITY

Soil samples were co-collected with vegetation during two field trips in early and late September 2023. Thirty-nine sites in near-field, mid-field, and control areas, at the same locations as in 2021 and 2022 baseline studies, were planned to be sampled again in 2023.

In addition to the 39 original sites, six new sites (CFMP-SV-041 to -046) were added to the sampling program in 2023 to improve the power of the Before-after Control-impact (BACI) analysis for future effects assessment, as recommended in the 2022 CFMP Annual Report (ERM 2023d). These sites were intended to be located in the near-field subarea, with additional control area samples to be placed in subsequent years. However, the new sites were placed into the mid-field subarea by the field crew due to a navigational error. These new sites will provide additional baseline data for the mid-field should spatial analysis of effects be required in the future. However, it is not recommended to continue routine sampling at these sites unless control-impact analysis identifies Mine effects in the near-field subarea and spatial analysis becomes necessary (medium to high trigger levels for soil and vegetation). An update of the CFMP version 1.0 to version 2.0 anticipated for later in 2024 will consider the number and location of sampling sites in the subareas.

During the two field trips, a total of 42 soil samples were obtained from 42 sites, plus 4 duplicate samples for quality assurance and quality control (QA/QC). The 42 samples included five road transect samples. Sampling sites are shown on Figure 3.1-1 and sites and their locations are listed in Table 3.2-1.

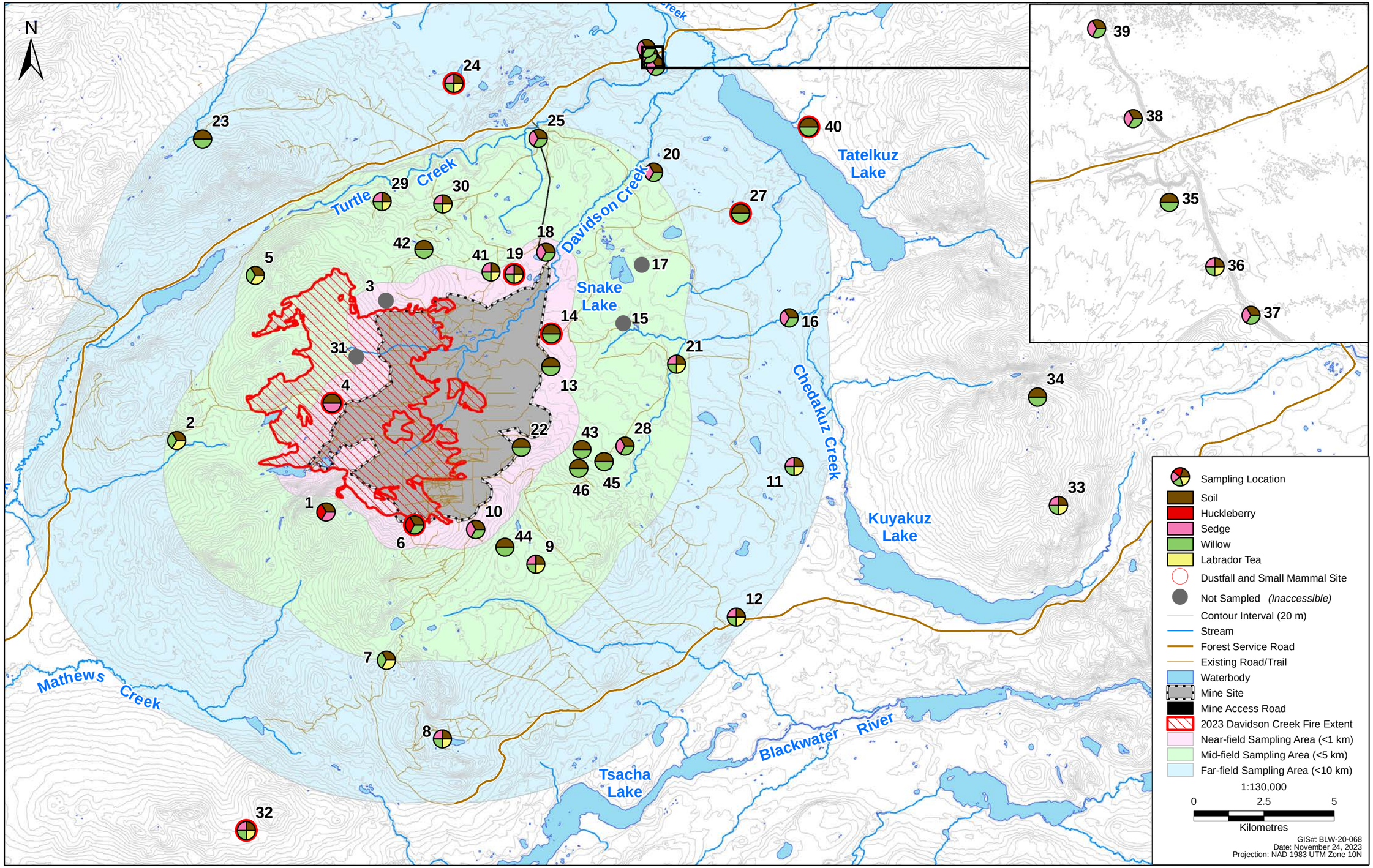


Figure 3.1-1: Dustfall, Soil, Plant, and Berry Sampling Sites, 2023, including the Extent of the 2023 Davidson Creek Fire

TABLE 3.2-1 2023 CFMP SOIL AND VEGETATION SAMPLING SITES

Site ID	UTM Coordinates		Samples Collected in 2023					Site Classification			
	Easting	Northing	Soil	Willow	Sedge	Labrador Tea	Huckle-berry	Near-Field (Impact)	Road Transect (Near-field)	Mid Field	Control
CFMP-SV-001	371271	5892260	X		X		X			X	
CFMP-SV-002	365957	5894805	X	X		X				X	
CFMP-SV-003	373408	5899788	*(a)*	*(a)*	*(a)*	*(a)*	*(a)*	X			
CFMP-SV-004	371485	5896139	X		X			X			
CFMP-SV-005	368752	5900683	X	X		X				X	
CFMP-SV-006	374417	5891796	X	X			X	X			
CFMP-SV-007	373424	5886984	X	X	X					X	
CFMP-SV-008	375413	5884185	X	X		X					X
CFMP-SV-009	378740	5890400	X	X	X	X				X	
CFMP-SV-010	376596	5891639	X	X	X			X			
CFMP-SV-011	387932	5893877	X	X	X	X					X
CFMP-SV-012	385869	5888517	X	X	X	X					X
CFMP-SV-013	379271	5897434	X	X				X			
CFMP-SV-014	379289	5898605	X	X				X			
CFMP-SV-015	381854	5898987	*(b)*	*(b)*	*(b)*	*(b)*	*(b)*			X	
CFMP-SV-016	387750	5899169	X	X	X						X
CFMP-SV-017	382514	5901070	X							X	
CFMP-SV-018	379097	5901510	X	X	X			X			

Site ID	UTM Coordinates		Samples Collected in 2023					Site Classification			
	Easting	Northing	Soil	Willow	Sedge	Labrador Tea	Huckle-berry	Near-Field (Impact)	Road Transect (Near-field)	Mid Field	Control
CFMP-SV-019	377967	5900722	X	X	X	X		X			
CFMP-SV-020	382931	5904351	X	X	X						X
CFMP-SV-021	383744	5897519	X	X	X					X	
CFMP-SV-022	378218	5894561	X	X				X			
CFMP-SV-023	366878	5905536	X	X							X
CFMP-SV-024	375822	5907513	X	X	X	X					X
CFMP-SV-025	378819	5905556	X	X	X			X			
CFMP-SV-027	386022	5902891	X	X							X
CFMP-SV-028	381909	5894605	X	X	X					X	
CFMP-SV-029	373268	5903310	X	X	X	X				X	
CFMP-SV-030	375429	5903222	X	X	X	X				X	
CFMP-SV-031	372353	5897782	*(a)*	*(a)*	*(a)*	*(a)*	*(a)*	X			
CFMP-SV-032	368437	5880920	X	X	X	X					X
CFMP-SV-033	397333	5892492	X	X	X	X					X
CFMP-SV-034	396588	5896349	X	X	X						X
CFMP-SV-035	382824	5908376	X	X	X				X		
CFMP-SV-036	382924	5908235	X	X	X	X			X		
CFMP-SV-037	383003	5908129	X	X	X				X		
CFMP-SV-038	382745	5908560	X	X	X				X		

Site ID	UTM Coordinates		Samples Collected in 2023					Site Classification			
	Easting	Northing	Soil	Willow	Sedge	Labrador Tea	Huckle-berry	Near-Field (Impact)	Road Transect (Near-field)	Mid Field	Control
CFMP-SV-039	382665	5908757	X	X	X				X		
CFMP-SV-040	388451	5905960	X	X							X
CFMP-SV-041	377144	5900808	X	X	X	X				X	
CFMP-SV-042	374752	5901609	X	X						X	
CFMP-SV-043	380376	5894482	X	X						X	
CFMP-SV-044	377635	5891007	X	X						X	
CFMP-SV-045	381165	5894055	X	X						X	
CFMP-SV-046	380259	5893813	X	X						X	

Notes:
Site CFMP-SV-040 was a new site added in 2022, as requested by Indigenous nation reviewers of the CFMP.
(a) Sites were inaccessible due to the 2023 Davidson Creek wildfire.
(b) Site was inaccessible due to overgrowth.

3.2.1 DEVIATIONS FROM CFMP SAMPLING METHODOLOGY FOR SOIL

Generally, sampling of soil was completed as per Section 4.3 of the CFMP. However, as noted previously in Section 1.3, soil was not sampled at three CFMP sites (CFMP-SV-031, -003, and -015) in 2023 due to wildfire impacts or safety issues in accessing the sites. As noted in Section 3.2, an additional six new sites in the mid-field area (CFMP-SV-041 to -046) were sampled instead of the recommended near field samples due to a navigational error.

3.3 PLANT AND BERRY QUALITY

During two field trips, a total of 79 vegetation samples consisting of 40 willow, 26 sedge, 14 Labrador tea, and 2 berry samples were obtained from 42 sites, plus 4 duplicate samples for QA/QC (willow leaves at sites CFMP-SV-007 and -013, sedge leaves at site CFMP-SV -007, and Labrador tea leaves at site CFMP-SV -019). Sampling sites are shown on Figure 3.1-1 and sites and their locations are listed in Table 3.2-1.

3.3.1 DEVIATIONS FROM CFMP SAMPLING METHODS FOR PLANTS AND BERRIES

Due to the 2023 Davidson Creek wildfire and the subsequent compression of the field season, there were a number of deviations from the sampling locations and methods described in Section 4.3 of the CFMP.

As described in Sections 1.3 and 3.2, due to the 2023 wildfire at the Mine site, 3 out of the original 39 soil and vegetation sampling sites could not be reached due to safety concerns and limited access. Sites CFMP-SV-003 and -031 were inaccessible due to the areas being too dangerous to access. Mid-field site CFMP-SV-015 had grown in and it was not accessible by helicopter (no safe landing site) or by road and was therefore not sampled. Site CFMP-SV-004 had been cleared previously by danger tree assessors and was accessible for sampling but had little vegetation (only sedges were sampled).

Due to a hot and dry summer the berry production throughout the CFMP study area was poor. Most sites that had berries collected in previous years had no berries in 2023. Only two huckleberry samples were collected in 2023, at sites CFMP-SV-001 (mid-field) and -006 (near-field).

Willow samples were obtained at all sites where soil was obtained, except at CFMP-SV-001, -004, and -017 as the delay in sampling due to the fire and the dryness had caused plants to drop their leaves. The change in sample number between years is unlikely to have large inter-annual effects as data are summarized for each sub-area (e.g., calculation of means and other summary statistics) prior to making comparisons as described in Section 4.4.

Sedge samples were obtained from 26 sites, and Labrador tea samples were obtained from 14 sites. Some samples that were collected in previous years at some sites could not be sampled in 2023 due to the delay of sampling after the wildfire (e.g., Labrador tea at CFMP-SV-004, -007, -010, and -021). Sedge and Labrador tea samples were collected at some sites where these species had not been sampled in the past (CFMP-SV-011, -012, and -025 [sedge only]) as the crew noted that the species were present at these sites and could be sampled.

A total of 79 vegetation samples were collected, including 4 duplicate samples (2 willow, 1 Labrador tea, and 1 sedge) were collected as part of the sampling program. Duplication was less than the 10% identified in the QA/QC program in Section 4.3.3 of the CFMP.

3.4 SURFACE WATER QUALITY

Surface water quality was monitored between January and December 2023 at the sites shown in Table 3.4-1. Sampling sites for surface water quality for the CFMP are shown on Figure 3.4-1 and are a subset of the sampling sites described in Section 4.2 of the AEMP.

TABLE 3.4-1 2023 CFMP SURFACE WATER SAMPLING SITES

Watershed or Lake	Site ID	Easting	Northing	Type of Site
Davidson Creek	DC-05	378205	5899299	near-field impact site
	DC-10	378845	5900157	near-field impact site
	DC-15	381880	5904054	near-field impact site
	DC-20	384234	5907722	mid-field impact site
Creek 661	661-01	378620	5894431	control site (upstream reference site)
	661-03	380803	5897193	near-field impact site on Creek 543585
	661-04	378714	5896389	near-field impact site on Creek 146920
	661-05	378843	5897007	near-field impact site on Creek 505659
	661-10	381179	5897915	near-field impact site
	661-20	388662	5899439	mid-field impact site
Turtle Creek	TC-01	369772	5902753	control site (upstream reference site)
	TC-05	376375	5904723	near-field impact site (air strip)
	TC-10	379129	5906160	mid-field impact site (air strip)
	TC-15	383300	5908691	mid-field impact site (air strip)
Chedakuz Creek	CC-03	388645	5899175	control site (upstream reference site)
	CC-05	389737	5900563	mid-field impact site
	CC-10	385418	5907732	mid-field impact site
	CC-15	383924	5909393	mid-field impact site
	CC-20	383097	5910077	far-field impact site
	CC-30	375187	5916462	far-field impact site
	CC-40	368695	5918685	far-field impact site
Creek 705	705-05	365887	5894321	control site (regional reference site)
	705-10	362169	5892943	control site (regional reference site)
Fawnie Creek	FC-01	363860	5899323	control site (regional reference site)
Tatelkuz Lake	TL-01	386010	5906768	mid field impact site
Kuyakuz Lake	KL-01	395187	5888710	control site (upstream reference site)

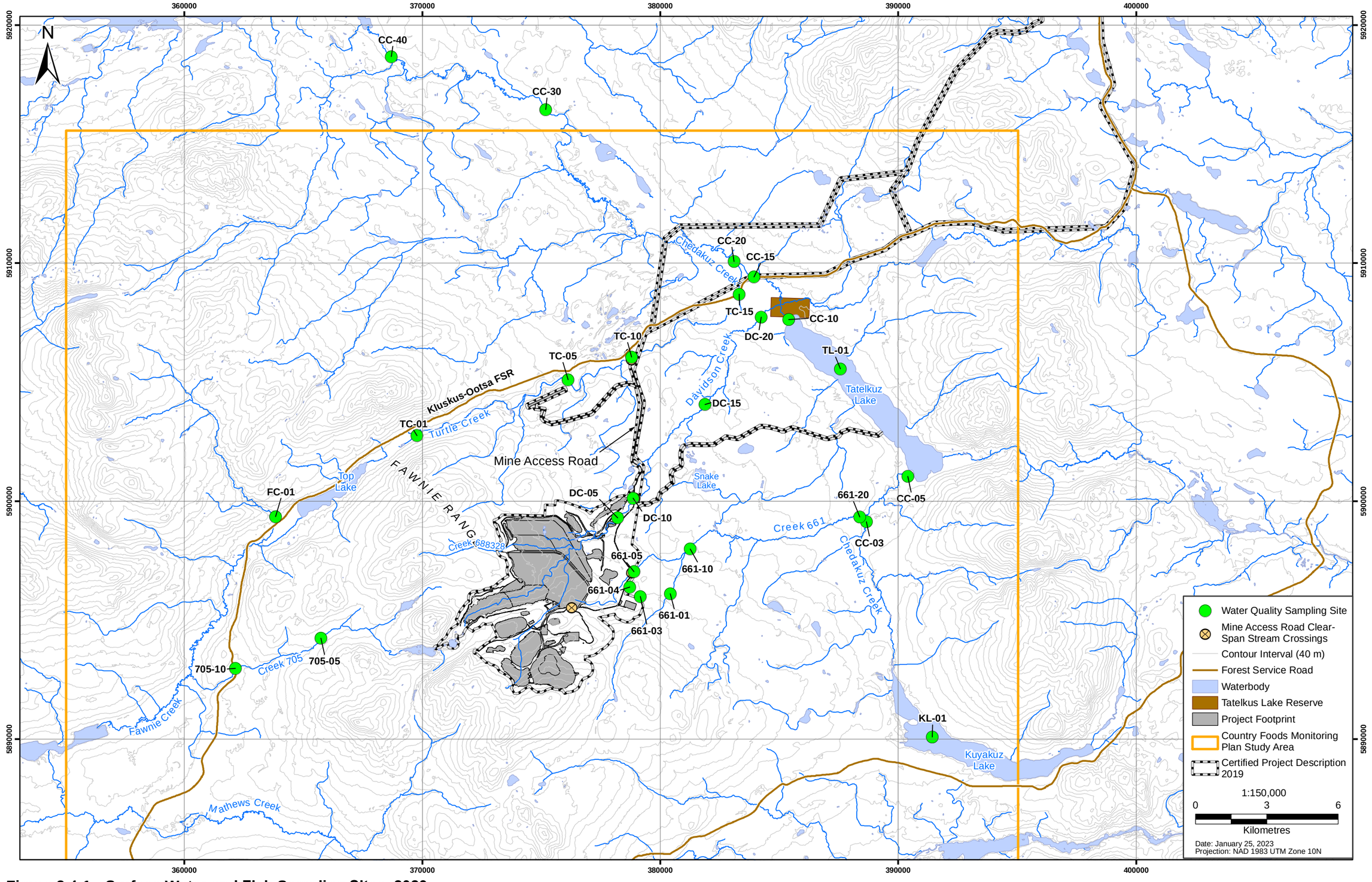


Figure 3.4-1: Surface Water and Fish Sampling Sites, 2023

Parameters analyzed in surface water quality samples included the 18 COPCs identified in Section 4.4.1 of the CFMP as well as additional physical parameters, general chemistry parameters (e.g., hardness), ions, and a full suite of total and dissolved metals that is required by Section 4.4.2.2 of the AEMP.

3.4.1 DEVIATIONS FROM CFMP SAMPLING METHODS

The sampling frequency and methods used in sampling surface water were as described in Section 4.4 of the CFMP, with minor exceptions. During the 2023 monitoring period, some water quality samples could not be collected due to conditions found in the field during sampling:

- Field measurements and water quality samples were not collected at 661-03 in January 2023 and at TC-15 in February 2023 because the stream was frozen to the bottom and there was no flow.
- The wildfire delayed field crews being able to access the surface water quality sites in July 2023 (and shortened the field season) therefore two of required surface water quality sites were not sampled (661-04 and TC-05).
- On occasion, field measurements were not collected (e.g., dissolved oxygen, field pH, conductivity, and turbidity) because of probe issues, lack of a turbidimeter, or operator error.

These minor exceptions are not expected to impact the data analysis under the CFMP. The QA/QC program for surface water quality sampling described in Section 4.4.3 of the CFMP was followed, including the collection of field duplicate samples and the use of trip and equipment blanks, as described in the AEMP. Laboratory-based QA/QC programs, consistent with the requirements of the British Columbia Environmental Laboratory Manual (BC ENV 2020a) were used. No exceptions in the QA/QC program were noted.

3.5 FISH TISSUE QUALITY

Fish tissue collection sites under the CFMP were control sites on Creek 705 (705-05 and 705-10), Turtle Creek (TC-01, TC-05, and TC-10; all sites in Turtle Creek are considered to be control sites until the air strip is constructed), Fawnie Creek (FC-01), and Kuyakuz Lake (KL-01), and impact sites on Creek 661 (661-01, 661-05, and 661-10), Davidson Creek (DC-05 and DC-15), and Tatelkuz Lake (TC-01).

Fish tissues were collected by Palmer Environmental following methods described in the AEMP Version 1.0 (July 2023) with some exceptions due to the Davidson Creek wildfire and a shortened field season (see Section 3.5.1). Due to wildfire-related delays, sampling commenced on August 25th and ended in late September (September 24th), which is slightly later than in previous years.

As per the AEMP, eight rainbow trout (RB) were targeted for tissue metals sampling per site (Figure 3.4-1). However, after completing three-pass electrofishing, no RB were captured at TC-01 (Turtle Creek; not sampled under the CFMP) and only 3 of 8 RB were captured at 661-05 (Creek 505659, a tributary to Creek 661). Additional fish sampling efforts were completed at 661-04 (near-field impact monitoring site at Creek 146920 downstream of Camp Site SCP Discharge location and a tributary to Creek 505659; not included in CFMP) where 8 RB were caught. Fish tissue analytical results from sites 661-05 were combined with those from 661-04 for

the purpose of statistical analysis and comparisons against numeric performance metrics (NPMs) to compensate for the low sample number at 661-05.

Sample designations in 2023 for Davidson Creek sites DC-05 and DC-15 were changed to DC-9/DC-05 and DC-5/DC-15, respectively, as those sites are both AEMP (and CFMP) and DS Condition 3.14 sites.

To decrease laboratory turnaround times and reduce sample handling, adult fish were dissected in the field prior to submitting tissue samples to ALS Laboratories for metals analysis. Tissue metal concentrations from whole-body juvenile RB and muscle tissue from adult RB, mountain whitefish (MW) and kokanee (KO) were combined in the statistical summaries.

3.5.1 DEVIATIONS FROM AEMP SAMPLING METHODS

Fish inventory sampling was completed at sites as indicated in Appendix C of PE-110652. Sampling methods were completed in accordance with the AEMP, Version 1.0, with some exceptions. Sites were sampled beginning on August 23, 2023 to September 22, 2023. Table 3.7-1 provides a summary of the exceptions from the sampling methods described in the AEMP Plan. The exceptions were either due of the wildfires in the Mine area in July 2023 or due to low fish abundance at targeted sites.

TABLE 3.7-1 SUMMARY OF EXCEPTIONS TO METHODS DUE TO WILDFIRES IN THE MINE AREA, 2023 FISH INVENTORY AND TISSUE METAL SAMPLING

Methods Indicated in AEMP Plan Version 1.0	Methods Completed in 2023
The fish community inventory survey will be completed in late July or early August.	Sampling commenced in mid-August and ended in late September.
The fish community inventory will be completed at eleven stream sites where surface water quality monitoring is completed to provide concurrent sampling at the same location.	Water quality sampling was not completed within 7 days of each fish community survey because of the associated logistical issues (shortened field season).
Tissue metals samples will be collected from eight euthanized Rainbow Trout per site.	After completing three-pass electrofishing, no Rainbow Trout were captured at TC-01 (Turtle Creek) and only 3 of 8 Rainbow Trout were captured at 661-05 (Creek 661). Additional fish sampling efforts were completed at 661-04 (near-field impact monitoring location not included in AEMP metals testing) where 8 Rainbow Trout were caught and submitted for metals analysis.

Notes:
AEMP = Aquatic Effects Monitoring Plan

3.6 MAMMAL TISSUE QUALITY

There are two components to the small mammal tissue sampling under the CFMP:

1. Collaboration with Indigenous groups, particularly with hunters and trappers, to develop an Indigenous-led program for sampling and laboratory analysis of game animals that are hunted or trapped within the CFMP study area (donated samples); and
2. A small mammal (rodent) sampling program. This program was initially designed to only be initiated and completed if triggered through the trigger response framework (see CFMP Version 1) but was updated to be conducted as a baseline program and a continued program irrespective of the proposed triggers (ERM 2023e).

Both components of the program were initiated in 2023 as baseline collection programs as no sampling had been conducted previously and effects from Early Works Construction on small mammal tissue quality were expected to be limited. Rationales and context for the components of this program were provided in January 2023 in the *Framework for the Collection Program for Rodents* (ERM 2023e) and will be included in the update to the CFMP anticipated for 2024.

3.6.1 HUNTED GAME ANIMAL PROGRAM

For the first component (donated game tissue), BW Gold initiated the program in 2023 by designing and placing posters inviting participants to donate samples of their hunted game for analysis. The posters with instructions on how to participate and where to obtain sampling equipment were posted at the mine site, in the Band Office and Lands and Resources Office of LDN/UFN, and online. Information pamphlets with instructions to hunters and a wildlife data collection form were also prepared and available to participants. No tissue samples were donated to the program in 2023.

3.6.2 SMALL MAMMAL (RODENT) SAMPLING PROGRAM

For the second component (small mammal sampling), the crew set up small mammal live traps in September of 2023 at or within 100m of the established near-field and control subarea dustfall sampling sites. Sampling proceeded as per the methodology described in the *BWG Framework for the Collection Program for Rodents* (ERM 2023e) and as permitted by the BC Animal Care permits SM22-781203 and PG23-781042 under the *Wildlife Act*.

Both Western deer mice (*Peromyscus maniculatus*; DM*)* and Southern red-backed voles (*Myodes gapperi*; RBV) were trapped as most sites hosted both species (Photo 3.6-1 and 3.6-2). Dissections of the animals were conducted off-site after conclusion of the field trip and livers were surgically removed. Livers and carcass (body excluding the liver) were subsequently re-frozen to be shipped to ALS Laboratories, Burnaby, BC for analysis of metal concentrations in tissues. A total of 32 DM and 25 RBVs were captured.

Bioaccumulation factors from soil or plant/berries to rodents can be calculated in future as the ratio of the measured metal concentration in the animal tissue over the measured metal concentration in soil, plants, and/or berries. The calculated bioaccumulation factors can be compared to those used in the food chain model in the *HHRA Update* report (Entia 2022b) for rodents (hare). This will provide an indication of the extent to which metals are taken up by rodents from exposure media (i.e., soil or food) into the tissues.

Photo 3.6-1 Red-backed vole (*Myodes gapperi*) trapped during the small mammal sampling program.

Photo 3.6-2 Western deer mouse (*Peromyscus maniculatus*) trapped during the small mammal sampling program.

3.6.2.1 DEVIATIONS FROM THE CFMP SAMPLING METHODOLOGY FOR SMALL MAMMALS (RODENTS)

The intention of the *BWG Framework for the Collection Program for Rodents* (ERM 2023e) was to collect either Southern red-backed voles or Western deer mice to limit potential variation in tissue quality results due to anticipated inherent species-specific variability resulting from different life histories and physiologies of the two species. However, live traps caught insufficient ($n < 8$) animals of either species at most sites after several days of sampling that would allow targeting of just a single species. The decision was made in the field to broaden the collection to both species.

Initially, Sherman live traps were set up and checked daily with the objective to capture live rodents for subsequent humane euthanasia using acceptable measures (cervical dislocation) outlined in *The Guidelines On: The Care and Use of Wildlife* (CCAC 2003) and *AVMA Guidelines on Euthanasia* (AVMA 2020) and in accordance with *Wildlife Act* permits SM22-781203 and PG23-781042. However, small mammals were often found to be dead or in torpor in the traps and the number of trapped animals was generally low. To meet sample size objectives and to adopt a more humane sampling approach, Sherman live traps were augmented with snap (kill) traps.

As there was no space for dissection of mammals on site and due to time limitations, whole mammals were frozen and subsequently dissected off-site prior to shipping to the laboratory.

3.7 DATA ANALYSIS

3.7.1 SUMMARY STATISTICS

Raw data were compiled in Excel, sourced from Certificates of Analysis (COA) provided by the laboratory for 2023 data. Summary statistics were calculated in Excel for dust, soil, vegetation, fish, and small mammal tissues, including calculation of the minimum, mean, standard deviation, standard error, 95% upper confidence limit of the mean (UCLM), median, 95th percentile, and maximum, and a count of samples with concentrations greater than the detection limit (DL). For surface water quality data, summary statistics were compiled in R (a programming language and software environment for statistical computing; R Development Core Team 2022).

The DL is the lowest detectable concentration, as reported by the laboratory. For the purpose of calculating summary statistics, when metal concentrations in water, dust, soil, plant, fish, and small mammal tissues were below the DL, a value of half the DL was substituted. Although this methodology for addressing what are essentially missing values does not capture the true frequency distribution of the concentrations (Nosal, Legge, and Krupa 2000), assigning values to undetected concentrations in this manner is common practice where it can be assumed the values are not zero but where the level of risk is low enough not to warrant additional statistical analyses (i.e., with regards to human health; US EPA 2000). Substituting concentrations below the DL with concentrations of half the DL is also recommended by BC ENV (2016) and was also used in the *Blackwater Gold Project: Human Health Risk Assessment Update* (HHRA Update) report (Entia 2021, 2022a,b).

For the purposes of calculating summary statistics, duplicate sample concentrations were averaged and evaluated as one sample, represented by the average concentration of the analytical results for the duplicate and parent sample. Where the halved laboratory DL exceeded applicable standards or guideline limits, these parameters were not considered to have exceeded standards. For parameters where the concentrations were highly censored (i.e., more than 70% of samples were below DL), only the minimum and maximum concentrations are shown, as other summary statistics (particularly parametric summary statistics such as mean or 95% UCLM) are considered to be too unreliable.

3.7.2 OVERVIEW OF STATISTICAL COMPARISONS AND BACI

This section provides an overview of statistical analysis and comparisons used for this report. Further details are provided in the "*Statistical Analysis*" subsections for each environmental medium or tissue (Section 4) of this report.

Prior to completing statistical comparisons between years (baseline prior to October 2022 and 2023) or between subareas (near-field [impact] *vs*. control), the data were screened and evaluated for inclusion or exclusion from the analysis. Data or statistical comparisons were excluded based on the following criteria:

- Metal parameters that were not identified as COPCs in the CFMP (ERM 2022) were excluded from the analysis.
- In each analysis, highly censored COPCs (i.e., where more than 70% of data had concentrations below the DL) were considered unreliable and were not used in the statistical analysis (as per Section 5 of the CFMP, ERM 2022).

- The analysis was performed on COPCs with at least five samples in each group or subarea (e.g., near, mid, control). For smaller number of samples (n < 5), the power of the statistical tests was considered to be too low to reliably detect significant differences between or among groups.

Data were log transformed to reduce the skewness of the original concentration data.

The statistical comparisons were carried out in R using a linear mixed-effects model to compare between years (or between subareas) while controlling for repeated measurements across sites. To reduce the number of false positives (Type I error) due to the large number of statistical tests conducted (i.e., to control for multiple testing), a false-discovery rate correction (Benjamini and Hochberg 1995) was applied and each test was assessed relative to an alpha of 0.05 using adjusted p-values. This p-value correction was applied across all tests in soil, vegetation, and fish tissues separately.

4. DATA ANALYSIS RESULTS AND INTERPRETATION

4.1 MEASUREMENT ENDPOINTS, ASSESSMENT ENDPOINTS, AND QUESTIONS FOR DATA ANALYSIS

As described in the CFMP, the assessment endpoints are based on comparisons of COPC concentrations measured during the monitoring period to predicted COPC concentrations (Predicted NPMs), baseline COPC concentrations (Baseline NPMs), and to guidelines or standards (Guideline NPMs; Table 4.1-1) within a trigger response framework under the CFMP (Table 6.3-4 of the CFMP).

TABLE 4.1-1 MEASUREMENT AND ASSESSMENT ENDPOINTS

Measurement Endpoint	Assessment Endpoint
COPC concentrations in air, water, soil, and country foods (plants, berries, and fish tissue)	• Comparison of measured concentrations to predicted concentrations (Predicted NPMs) • Comparison of measured concentrations to baseline concentrations (Baseline NPMs) • Comparison of measured concentrations to applicable environmental media or tissue guidelines or country foods trigger benchmarks (Guideline NPMs) • Before-after-control-impact (BACI) analysis if a NPM is exceeded

Evaluation of results for the 2023 Construction period was performed as described in Section 5 of the CFMP. The evaluation intends to answer the following questions (see Section 5.1 of the CFMP for additional details):

- **Question 1:** Are COPC concentrations in environmental media and tissues different than were predicted in the predictive model and used in the HHRA?
- **Question 2**: Are COPC concentrations in environmental media and tissues changing relative to baseline conditions due to Mine-related discharges or emissions?
- **Question 3**: If concentrations are different than baseline and different than predicted, are the changes statistically significant or exceeding levels of concern (i.e., guidelines or human health-specific benchmarks)? What is the extent of Mine-related influence on COPC concentrations in environmental media and tissues?

The derivation of NPMs for answering Questions 1 to 3 and for defining action levels in the adaptive management framework was presented in the *Blackwater Gold Project: Human Health Triggers for Adaptive Management* (HHTAM) report (ERM 2023f), which was completed in May 2023. Reviewer comments for the HHTAM report were received from Northern Health on January 9, 2024 and from Shared Value Solutions on behalf of UFN/LDN and Health Canada at the end of January 2024. During review and responses to the comments received in January 2024, NPMs and their derivation will be checked and revised, as necessary; however, timelines for CFMP annual report preparation (December 2023 to February 2024) and submission (March 31, 2024) did not allow incorporation of any changes to the HHTAM report into this annual report. Future annual reports will consider any changes that were made to triggers in the HHTAM report or the CFMP during the review process.

The general methodology to answer these three questions is described in Section 5.2 of the CFMP. Briefly, to answer:

- **Question 1**, mean concentrations measured at impact sites for air, water, soil, and country foods will be compared to the Predicted NPM concentrations for Construction derived using predictions in the *Blackwater Gold Project: Updated HHRA* report (Entia 2022a).
- To answer **Question 2**, mean of measured concentrations will be compared to Baseline NPMs for air, water, soil, and country foods to identify if there have been changes relative to baseline conditions.
- To help answer **Question 3** (exceedance of levels of concern), mean measured concentrations will be compared to Guideline NPMs, which were derived based on human health-based guidelines, standards, or benchmarks, as available in the *Human Health Triggers for Adaptive Management* report (ERM 2023f). To fully answer Question 3 in the case that NPMs are exceeded, BACI analysis is used to identify if there are statistically significant Mine-related impacts to COPC concentrations in air, water, soil, and country foods between baseline (up until September 2022) and the Construction period (October 2022 to December 2023).

4.2 AIR QUALITY MONITORING RESULTS

4.2.1 COARSE PARTICULATE MATTER AND DUSTFALL RESULTS

Particulate matter concentration data (24-hour PM_{10} and $PM_{2.5}$) measured at the exploration camp during construction are presented in the *AQDMP Annual Report* (Artemis Gold 2024). Statistical summaries for coarse particulate matter (particularly matter less than 10 microns in diameter, PM_{10}) obtained in 2023 are presented in Table 4.2-1 and were used to derive estimates for inhalable PM_{10}-associated metals from dustfall during Construction.

The BC Ambient Air Quality Objective (AAQO) for PM_{10} of 50 µg/m^3 was exceeded in 17% of the 54 samples, with a maximum concentration of 171 µg/m^3. Exceedances were reported to BC ENV by BW Gold on August 14, September 13, October 5 and 18, and December 5, 2023, and are discussed in the AQDMP Annual Report (Artemis Gold 2024). Depending on time of year and meteorological conditions, exceedances were likely due to construction activities next to the Partisol unit (additional exploration camp new housing buildings), the wood burning furnace approximately 25 m northeast of the Partisol (used periodically until the end of May 2023), smoke from nearby and regional wildfires, dust entrainment by strong winds, and vehicle movement on unpaved ground. During dry and dusty days with temperatures above freezing, water trucks run daily to minimize fugitive dust that may occur on roadways or due to construction activities. A QP has recommended to move the Partisol to a new location because the wood burning furnace and the increase in infrastructure has impacted the monitoring results (Artemis Gold 2024). To support this recommendation, BWG is pursuing an amendment to PE-110650 to relocate the unit. The revised location is still situated near the Construction Camp, however it is further away from busy unpaved roads and building structures. The Partisol will stay at the new location until the Operations camp is complete.

Raw data for amounts of total dustfall and dustfall metals (in mg and in mg/dm^2-day) as well as the period of sampling (in days) are presented in the laboratory Certificate of Analysis (COA) provided in Appendix A.1. Impact sites (CFMP-004, -006, -014, and 019) were sampled for dustfall for 23 to 24 days, and control sites (CFMP-024, -027, -032, and -040) were sampled for 12 to 21 days. Summary statistics for total dustfall and dustfall metal amounts for COPCs at impact and control sites and in the CFMP study area overall are shown in Table 4.2-2.

TABLE 4.2-1 SUMMARY STATISTICS FOR MEASUREMENTS OF COARSE PARTICULATE MATTER (24-HOUR PM_{10}), 2023

Parameter	n	Concentrations of PM_{10} at Exploration Camp Partisol Station (µg/m³)									Percent of n Exceeding AAQO
		Minimum	Mean	Standard Deviation	Standard Error	95%UCLM	Median	95th Percentile	Maximum	AAQO (24-hour)	
Particulate, $PM_{2.5}$	54	1.00	8.62	13.0	1.77	12.1	4.95	30.2	82.2	25	9

Notes:
n = total number of samples; PM = particulate matter; UCLM =upper confidence limit of the mean; AAQO = Ambient Air Quality Objective
Statistics exceeding the AAQO for 24-hour PM_{10} are shaded gray and bolded.

TABLE 4.2-2 SUMMARY STATISTICS FOR TOTAL DUSTFALL AND DUSTFALL METAL COPCS, 2023

Parameter or COPC	Total Dustfall and Dustfall Metal Amounts, Near-field Sites (n = 4)				Total Dustfall and Dustfall Metal Amounts, Control Sites (n = 4)			
	n > DL	Minimum (mg)	Mean (mg)	Maximum (mg)	n > DL	Minimum (mg)	Mean (mg)	Maximum (mg)
Field sampling time (days)	4	23	24	24	4	12	19	21
Particulates								
Total dustfall	4	1.92	4.34	9.02	0	0.95	0.95	0.95
Total Metals								
Aluminum	4	0.0171	0.0370	0.0517	4	0.0076	0.0129	0.0185
Antimony	0	<0.000050	-	<0.000050	0	<0.000050	-	<0.000050
Arsenic	1	<0.000050	-	0.0000920	0	<0.000050	-	<0.000050
Beryllium	0	<0.00025	-	<0.00025	0	<0.00025	-	<0.00025
Cadmium	0	<0.000020	-	<0.000020	0	<0.000020	-	<0.000020
Chromium	0	<0.00025	-	<0.00025	0	<0.00025	-	<0.00025
Cobalt	0	<0.000050	-	<0.000050	0	<0.000050	-	<0.000050
Copper	0	<0.00050	-	<0.00050	0	<0.00050	-	<0.00050

Parameter or COPC	Total Dustfall and Dustfall Metal Amounts, Near-field Sites (n = 4)				Total Dustfall and Dustfall Metal Amounts, Control Sites (n = 4)			
	n > DL	Minimum (mg)	Mean (mg)	Maximum (mg)	n > DL	Minimum (mg)	Mean (mg)	Maximum (mg)
Iron	3	<0.015	0.0304	0.0470	1	<0.015	-	0.0170
Lead	3	<0.000025	0.0000554	0.000154	0	<0.000025	-	<0.000025
Lithium	0	<0.0025	-	<0.0025	0	<0.0025	-	<0.0025
Manganese	4	0.00925	0.0182	0.0398	4	0.00641	0.00799	0.0105
Mercury	0	<0.000025	-	<0.000025	0	<0.000025	-	<0.000025
Molybdenum	0	<0.000025	-	<0.000025	0	<0.000025	-	<0.000025
Nickel	0	<0.00025	-	<0.00025	0	<0.00025	-	<0.00025
Selenium	0	<0.00050	-	<0.00050	0	<0.00050	-	<0.00050
Thallium	0	<0.000050	-	<0.000050	0	<0.000050	-	<0.000050
Zinc	1	<0.0015	-	0.00400	0	<0.0015	-	<0.0015

(TABLE 4.2-2 CONTINUED)

Parameter or COPC	Total Dustfall and Dustfall Metal Amounts, Site-wide (n = 8; mg)								
	n > DL	Minimum	Mean	Standard Deviation	Standard Error	95%UCLM	Median	95th Percentile	Maximum
Dustfall, total	4	<1.90	2.65	2.83	1.00	4.61	1.44	7.40	9.02
Total Metals									
Aluminum	8	0.0076	0.0249	0.0168	0.00595	0.0366	0.0178	0.0504	0.0517
Antimony	0	<0.000050	-	-	-	-	-	-	<0.000050
Arsenic	1	<0.000050	-	-	-	-	-	-	0.0000920
Beryllium	0	<0.00025	-	-	-	-	-	-	<0.00025

Parameter or COPC	Total Dustfall and Dustfall Metal Amounts, Site-wide (n = 8; mg)								
	n > DL	Minimum	Mean	Standard Deviation	Standard Error	95%UCLM	Median	95th Percentile	Maximum
Cadmium	0	<0.000020	-	-	-	-	-	-	<0.000020
Chromium	0	<0.00025	-	-	-	-	-	-	<0.00025
Cobalt	0	<0.000050	-	-	-	-	-	-	<0.000050
Copper	0	<0.00050	-	-	-	-	-	-	<0.00050
Iron	4	<0.015	0.0201	0.0167	0.00590	0.0317	0.0123	0.0460	0.0470
Lead	3	<0.000025	0.0000339	0.0000490	0.0000173	0.0000679	0.0000125	0.000110	0.000154
Lithium	0	<0.0025	-	-	-	-	-	-	<0.0025
Manganese	8	0.00641	0.0131	0.0110	0.00390	0.02072	0.00968	0.03060	0.0398
Mercury	0	<0.000025	-	-	-	-	-	-	<0.000025
Molybdenum	0	<0.000025	-	-	-	-	-	-	<0.000025
Nickel	0	<0.00025	-	-	-	-	-	-	<0.00025
Selenium	0	<0.00050	-	-	-	-	-	-	<0.00050
Thallium	0	<0.000050	-	-	-	-	-	-	<0.000050
Zinc	1	<0.0015	-	-	-	-	-	-	0.00400

Notes:
COPC = contaminant of potential concern; n = number of samples; DL = detection limit; UCLM = upper confidence limit of the mean
"<" = concentration is less than the detection limit.
"-" means that summary statistics, other than minimum and maximum, have not been calculated as more than 70% of samples were below DL.
For the purpose of calculating summary statistics, non-detectable concentrations were assumed to be 0.5 x DL.
Impact (near-field) sites are CFMP-SV-004, -006, -014, and -019, and control sites are CFMP-SV-024, -027, -032, and -040,

Mean total dustfall amount at impact sites was 4.34 mg, whereas total dustfall was not detectable at any of the control sites. Only aluminum, iron, lead, and manganese were sufficiently (>30% of samples) detectable in dustfall to calculate summary statistics. Three out of four impact sites had detectable levels of iron and lead, whereas lead was not detectable at control sites and iron was only detectable in one of the four control sites. Zinc was detectable at one impact site. Concentrations of COPCs overall were low.

The fraction of each detectable COPC in the amount of total dustfall was multiplied by the PM_{10} concentration estimate at offsite receptor locations. The PM_{10} estimate at offsite receptor locations, rather than the measured PM_{10} concentration, was used because PM_{10} was measured at the onsite workers camp and not at offsite receptor locations and would therefore over-estimate PM_{10}-associated metals in air for offsite receptors.

The offsite PM_{10} concentration estimate was derived as follows: modelled (predicted) Project PM_{10} concentrations were derived for the *Human Health Risk Assessment Update Report* (Entia 2021, 2022a) for offsite human receptor locations (Table 2.4-1 of the *HHRA Update* report) and for the future off-duty worker camp location. A maximum concentration of 11 µg/m^3 of PM_{10} at offsite receptor locations was modelled for the Messue Wagon Road 4 location, whereas the maximum at the off-duty worker camp location was modelled as 27 µg/m^3, resulting in a ratio of 2.45 between off-site and worker camp location concentrations. This ratio was applied to the mean annual concentration of 24-hour PM_{10} at the construction worker camp throughout 2023, which was 27.6 µg/m^3 (Table 4.2-1). Therefore, the estimated Construction phase off-site PM_{10} concentration is 11 µg/m^3, which is similar to the modelled off-site receptor PM_{10} concentration of 11 µg/m^3 from the *HHRA Update* report (Entia 2021, 2022a). This concentration was multiplied with the fraction of detectable 2023 metal COPC concentrations in each dustfall sample to derive the 2023 PM_{10}-associated COPC concentrations for off-site receptors. The conversions of dustfall data to PM_{10}-associated COPC concentrations are presented in tables in Appendix B.

The estimated PM_{10}-associated COPC concentrations for detectable COPCs (shown in Table 4.2-3) were then compared to the air quality (AQ) NPMs derived in the HHTAM report (ERM 2023f). Except for the AQ Guideline NPMs, which were based on Ontario Ambient Air Quality Criteria (OMECP AAQCs) and on the Texas Commission on Environmental Quality Effects Screening Levels (Texas CEQ ESL), the Baseline and the Predicted AQ NPM were based on Baseline and Predicted COPC concentrations in soil as per guidance from Health Canada (2019; updated in 2023) as concentrations of COPCs in air were not measured in baseline studies. Results of the comparisons are presented in the following Sections 4.2.2 to 4.2.4.

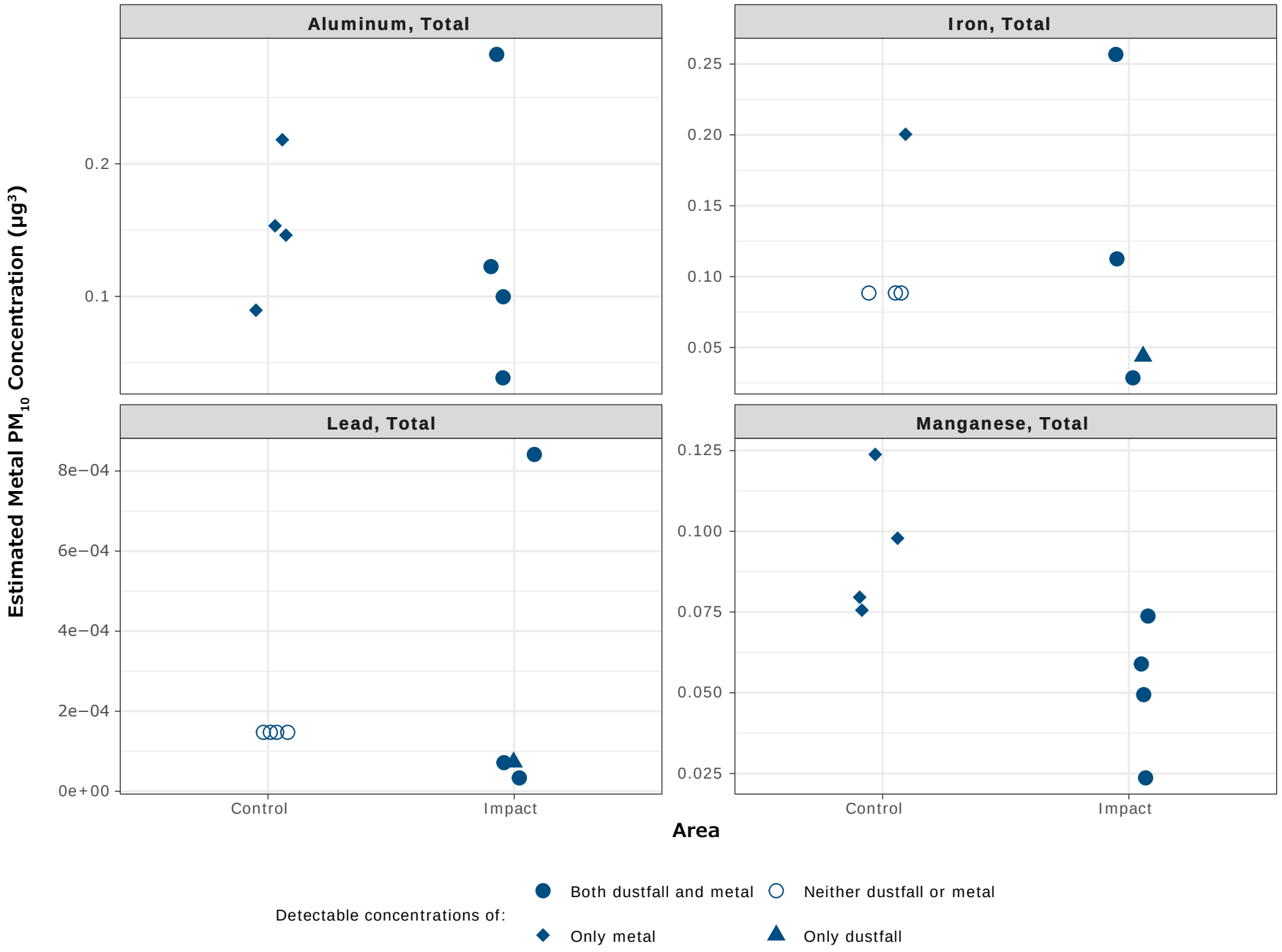
Figure 4.2.1 illustrate the estimated PM_{10}-associated COPC concentrations for detectable COPCs (i.e., aluminum, iron, lead, and manganese) at control and impact sites for the 2023 Construction period and Figure 4.2.2 includes data for the 2022 Baseline period.

TABLE 4.2-3 STUDY AREA-WIDE COMPARISON OF MEAN PM_{10}-ASSOCIATED COPC CONCENTRATIONS TO AQ GUIDELINE, BASELINE, AND PREDICTED NPMS, 2023

COPC	Estimated PM_{10} - associated COPC Concentration at Offsite Receptor Locations (mg/m^3)	AQ Guideline NPM (mg/m^3)	Baseline AQ NPM (mg/m^3)	Predicted AQ NPM (mg/m^3)
Aluminum	0.00014	0.0015	0.00014	0.00017
Antimony	NC	0.0005	0.0000000034	0.0000000045
Arsenic	NC	0.000067	0.000000052	0.000000066
Beryllium	NC	0.000002	0.0000000037	0.0000000047
Cadmium	NC	0.0000033	0.0000000026	0.0000000033
Chromium	NC	0.000041	0.00000015	0.00000019
Cobalt	NC	0.0000017	0.000000053	0.000000067
Copper	NC	0.001	0.000000109	0.00000016
Iron	0.00013	0.012	0.00020	0.00025
Lead	**0.00000020**	0.00015	0.000000067	0.000000086
Lithium	NC	0.0002	0.000000060	0.000000074
Manganese	**0.000073**	0.00025	0.0000095	0.000012
Mercury	NC	0.000025	0.00000000072	0.00000000091
Molybdenum	NC	0.0045	0.000000017	0.000000021
Nickel	NC	0.00002	0.000000098	0.00000012
Selenium	NC	0.0002	0.0000000018	0.0000000029
Thallium	NC	0.0001	0.00000000088	0.00000000111
Zinc	NC	0.002	0.00000060	0.00000078

Notes:
COPC = contaminant of potential concern; PM = particulate matter; AQ = air quality; NPM = Numerical Performance Metric.
NC = not calculated; PM_{10}-associated COPC concentrations were not calculated for parameters with more than 70% non-detects.
[a] The estimated PM_{10}-associated COPC concentrations in 2023 was based on the average proportion of COPC in total dustfall and the average estimated offsite 24-hour PM_{10} concentration of 11.2 mg/m^3.
See Appendix B for details.
Bold font means the PM_{10}-associated metal concentration was higher than both the Baseline and Predicted AQ NPM.

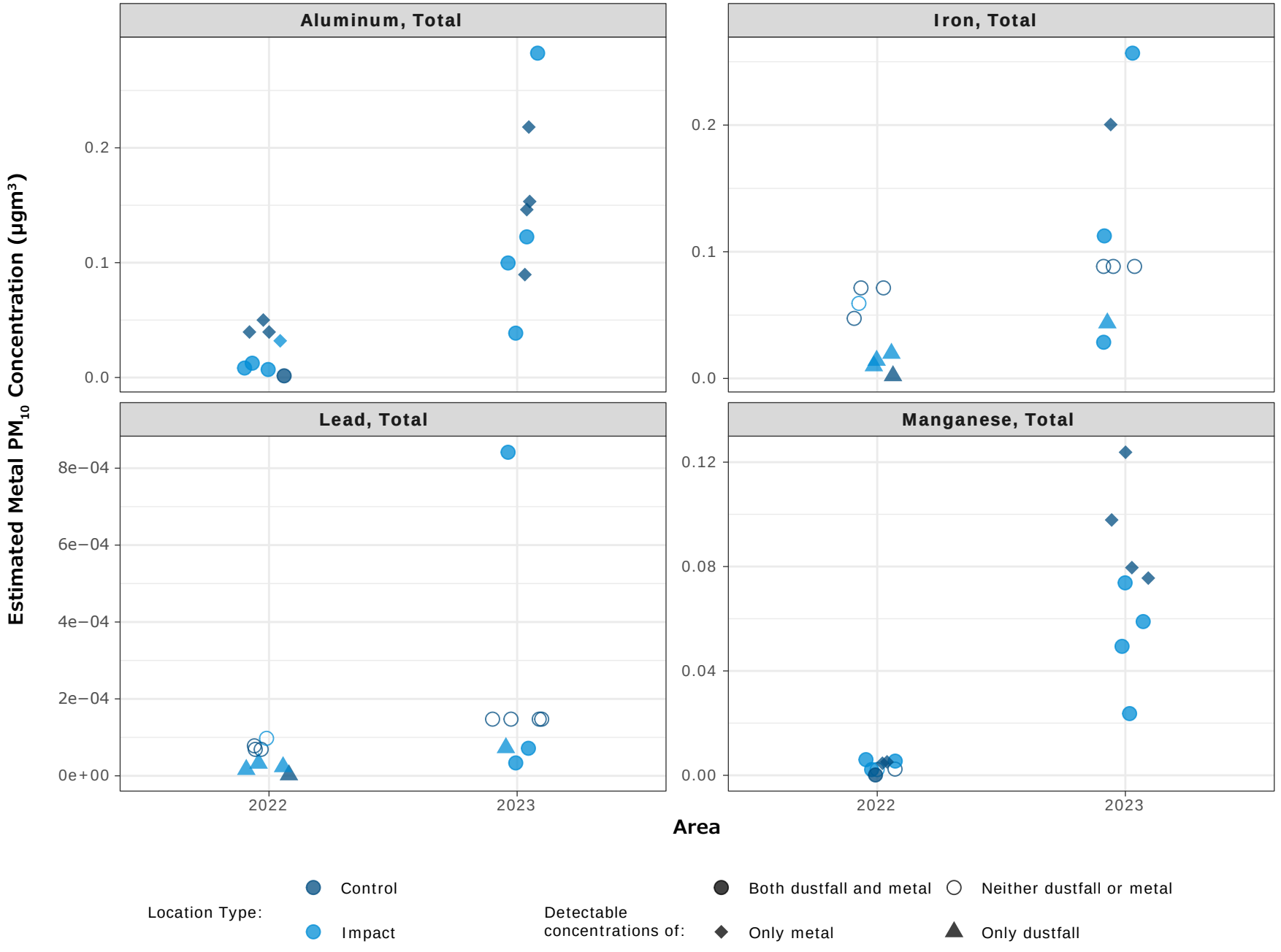
FIGURE 4.2-1 ESTIMATED PM10-ASSOCIATED COPC CONCENTRATIONS FOR ALUMINUM, IRON, LEAD, AND MANGANESE AT CONTROL AND IMPACT SITES IN 2023



ERM

CLIENT: BW Gold LTD.
GRAPHICS NUMBER: BWG-24ERM-010:1

FIGURE 4.2-2 ESTIMATED PM10-ASSOCIATED COPC CONCENTRATIONS FOR ALUMINUM, IRON, LEAD, AND MANGANESE AT CONTROL AND IMPACT SITES FOR BASELINE (2022) AND CONSTRUCTION (2023) PERIODS.



ERM

CLIENT: BW Gold LTD.

GRAPHICS NUMBER: BWG-24ERM-010:2

4.2.2 COMPARISON TO AQ GUIDELINE NPMS

As shown in Table 4.2-3, mean PM_{10}-associated concentrations of the four detectable COPCs (aluminum, iron, lead, manganese) were below the AQ Guideline NPM. The concentrations of all other COPCs were not calculated as they were not consistently detectable (i.e., detected in fewer than 30% of samples) in dustfall.

4.2.3 COMPARISON TO BASELINE AQ NPMS

Table 4.2-3 shows the calculated PM_{10}-associated metal concentrations and the Baseline AQ NPM. When amounts of COPCs were not detectable in more than 70% of samples (i.e., 30% non-detects), summary statistics were not calculated and concentrations are assumed to not exceed the Baseline AQ NPM.

The mean PM_{10}-associated concentrations of COPCs detectable in dust in 2023 were lower than the Baseline AQ NPMs for aluminum and iron, but higher than the Baseline AQ NPMs for lead and manganese by up to eight times. A number of reasons likely account for this:

- The baseline PM_{10} concentration of 9 $\mu g/m^3$ that was used to calculate the Baseline AQ NPM is less than the measured mean PM_{10} concentration of 11.2 $\mu g/m^3$ used to derive PM_{10}-associated metal COPC concentrations for the 2023 monitoring period. This result is not unexpected, as PM_{10} concentrations were predicted to increase relative to baseline conditions during Mine Construction and Operations phases.
- Baseline AQ NPMs were derived using metal concentrations in soil because baseline dustfall measurements were not available, as recommended in Health Canada (2019). Metal concentrations in soil can differ from metal concentrations in dustfall. For instance, the 95% UCLM concentrations of aluminum, iron, lead, and manganese in soil, from which the Baseline AQ NPMs were derived, are lower than the concentration of these metals measured in dustfall, thereby contributing to exceedances of the AQ Baseline NPM.
- Many metals in dust at control and impact sites and total dustfall at control sites were non detectable. Since total dustfall is used to derive metal concentrations in dust, and since "< DL" is replaced with half the detection limit to derive an assumed amount for dustfall, there is high uncertainty in the concentration of metals that were undetectable, particularly at control sites. This uncertainty affects the overall summary statistics and outcome of the comparisons to AQ NPMs, particularly for COPCs like lead and manganese where three or four samples, respectively, out of eight samples had concentrations below detection limit.

4.2.4 COMPARISON TO PREDICTED AQ NPMS

Table 4.2-3 shows the calculated PM_{10}-associated metal concentrations and the Predicted AQ NPM. When amounts of COPCs were not detectable in all eight samples, summary statistics were not calculated and concentrations are assumed to not exceed the Predicted AQ NPM.

The mean PM_{10}-associated concentrations of COPCs detectable in dust in 2023 were lower than the Predicted AQ NPMs for aluminum and iron, but higher than the Predicted AQ NPMs for lead and manganese by up to 6 times. The same reasons described in the previous section for Baseline NPMs comparisons (Section 4.2.3) may also cause the Predicted AQ NPMs to be exceeded, specifically:

- The predicted PM_{10} concentration of 11 µg/m^3 used to derive the Predicted AQ NPMs for off-site receptors is slightly less than the mean PM_{10} concentration of 11.2 µg/m^3 that was used to derive PM_{10}-associated metal COPC concentrations for the 2023 monitoring period.
- Predicted AQ NPMs were derived using predicted metals concentrations in soil from the *HHRA Update* report (Entia 2021, 2022a). Predicted metal concentrations in soil are not directly comparable to metal concentrations in dustfall. The predicted soil concentrations of aluminum, iron, lead, and manganese from which the Predicted AQ NPMs were derived are lower than measured concentrations in dustfall, thereby contributing to exceedances of the Predicted AQ NPM.
- Many metals in dust at control and near-field sites and total dustfall at Control sites were non detectable. Since total dustfall is used to derive metal concentrations in dust, and since "< DL" is replaced with half the detection limit to derive an assumed amount for dustfall, there is high uncertainty in the concentration of metals at control sites. This uncertainty affects the overall summary statistics and outcome of the comparisons to AQ NPMs.

4.2.5 STATISTICAL ANALYSIS

Figure 4.2-2 illustrates the estimated PM_{10}-associated COPC concentrations for COPCs that were detectable in dustfall, e.g., total aluminum, iron, lead, and manganese, at control and impact sites for Baseline (2022) and Construction (2023) periods. Since average 2023 concentrations of total lead and manganese exceeded the Baseline and Predicted AQ NPMs, these two COPCs were carried forward into a BACI analysis to determine whether observed changes in concentration at impact sites were significant in relation to changes in concentration at control sites.

Appendix C.1 provides the details of the BACI analysis. Results indicate that changes in lead concentrations in PM_{10} at impact sites from 2022 to 2023 were not significantly different (p = 0.56) from changes at control sites. However, the change in manganese concentrations in PM_{10} at impact sites from 2022 to 2023 were significantly different (p = 0.015) from changes at control sites. It is noted that because control sites (0.00887 ug/m^3) had higher concentrations of manganese in PM_{10} than impact sites (0.00542 ug/m^3) in 2023 (see Appendix C.1), these changes are not likely to be Mine-related.

4.3 SOIL QUALITY

4.3.1 SOIL QUALITY MONITORING RESULTS

4.3.1.1 PARTICLE SIZE

Analytical data for particle size are provided in Appendix A.2 in the COA from ALS. Summary statistics are provided in Table 4.3-1.

TABLE 4.3-1 STUDY AREA-WIDE SUMMARY STATISTICS FOR SOIL PH, PARTICLE SIZE, ORGANIC CARBON, AND INORGANIC CARBON, 2023

Parameter	n > DL	Summary Statistics of Parameter Concentrations in Soil, Study Area-wide (n = 42)							
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Physical Tests									
pH (1:2 soil:water)	42	**3.70**	**5.62**	0.928	0.143	**5.90**	**5.49**	7.15	7.30
Particle Size									
Gravel (> 2 mm)	10	<1.0	-	-	-	-	-	-	36.6
Sand (2.0 mm - 0.05 mm)	17	<1.0	28.2	26.7	5.45	38.9	34.1	62.7	86.7
Sand (2.0 mm - 0.063 mm)	36	<1.0	38.3	25.9	4.0	46.1	39.6	78.2	80.4
Silt (0.05 mm - 0.002 mm)	23	11.1	58.3	21.5	4.5	67.1	56.7	94.3	96.1
Clay (< 0.002 mm)	23	2.20	12.2	11.0	2.3	16.7	5.4	34.2	36.1
Silt (0.063 mm - 0.004 mm)	42	9.00	45.2	20.8	3.2	51.5	39.7	81.3	93.2
Clay (< 0.004 mm)	42	2.20	11.70	9.94	1.53	14.7	7.73	31.9	41.3
Organic / Inorganic Carbon									
Inorganic carbon	40	<0.05	0.155	0.162	0.0249	0.204	0.080	0.525	0.588
Total carbon	42	0.43	11.3	13.8	2.1	15.5	4.8	42.4	45.9
Total organic carbon	42	0.35	11.2	13.7	2.1	15.3	4.8	41.8	45.4
Inorganic carbon (as $CaCO_3$ equivalent)	40	<0.4	1.29	1.35	0.208	1.70	0.670	4.38	4.90
Organic matter	42	0.600	19.3	23.6	3.64	26.4	8.20	72.0	78.3

Notes:
Concentrations are provided in mg/kg dry weight, unless otherwise indicated.
N = number of samples; DL = detection limit; UCLM = upper confidence limit of the mean
For the purposes of calculating summary statistics, concentrations below the detection limit (DL) were replaced with 0.5 x DL.
"-" means that summary statistics, other than minimum and maximum, have not been calculated as more than 70% of samples were below DL.
Bold font with grey shading indicates the pH is outside of the guideline range from Canadian Council for Ministers of the Environment (CCME), which is 6 to 8. The guideline refers to the CCME Soil Quality Guidelines for the Protection of Environmental and Human Health, based on the lowest of the guidelines for agricultural or for residential / parkland land uses.

Figure 4.3-1 shows the percentage of clay (<0.004mm), silt (0.063mm to 0.004 mm), sand (2.0 mm to 0.063 mm), and gravel (>2 mm) at each site, grouped into subareas (control [far-], mid-, and near-field). Overall, soils consist of an average of 45% silt, 38% sand, 5% gravel, and 12% clay, but show a high degree of variability between sites, ranging from several sites consisting predominately of silt (e.g., CFMP-CV-019 and CFMP-CV-024) to a site with 37% gravel (CFMP-SV-005). There are no apparent differences in soil particle composition between subareas, and each subarea shows a high degree of heterogeneity between individual sites. Note that larger debris were not included in the soil particle size analysis as large pebbles and other debris are sorted out of the samples in the field.

4.3.1.2 ORGANIC AND INORGANIC CARBON

Soil organic and inorganic carbon analytical data are provided in Appendix A.2 in the COA from ALS. Summary statistics are provided in tables in Table 4.3-1.

As in baseline sampling in 2022, organic matter in 2023 was highly variable between sites (between 0.60 to 78 mg/kg, with a standard deviation of 23.6 mg/kg) as expected in a mountainous environment.

4.3.1.3 METALS AND PH

Soil analysis results are provided in Appendix A.2 in the COA from ALS.

pH (provided in Table 4.3-1) was low overall in the study area, with a minimum pH of 3.7, and a 95% UCLM pH of 5.9. Only the 95th percentile and maximum pH were within the CCME soil quality guideline range of 6 to 8, similar to observations during baseline studies in 2022 and 2021.

Summary statistics for concentrations of COPCs in the study area at sites listed in Table 3.2-1 are provided in table in Table 4.3-2. Box plots illustrating summary statistics (mean, percentile ranges, and potential outliers) for COPCs and pH at control, mid-field, near-field (impact) and road transect sites for baseline (2021 and 2022) and monitoring (2023) periods are shown in Figures 4.3-2 to 4.3-4. Selenium was not included in the box plots because concentrations were below the detection limit of 0.2 mg/kg in more than 70% of samples.

Two metal parameters had detection limits that were higher than guidelines or standards, but are not COPCs based on the *HHRA Update* report (Entia 2021, 2022a): The DL for boron (5 mg/kg) was higher than the CCME soil quality guideline or BC CSR standard of 2 mg/kg; boron was below the DL in most (39 of 42) soil samples (Appendix A.2). The DL for sulfur was 1,000 mg/kg, which was also greater than the CCME soil quality guideline of 500 mg/kg, and 35 out of 42 soil samples tested for sulfur had concentrations less than the DL.

As 2023 is considered the first year of Construction phase, the following sections compare the mean COPC concentrations in soil to the soil quality (SQ) Guideline, Baseline, and Predicted NPMs as outlined in the CFMP and the HHTAM report (ERM 2023f).

4.3.2 COMPARISON TO SQ GUIDELINE NPMS

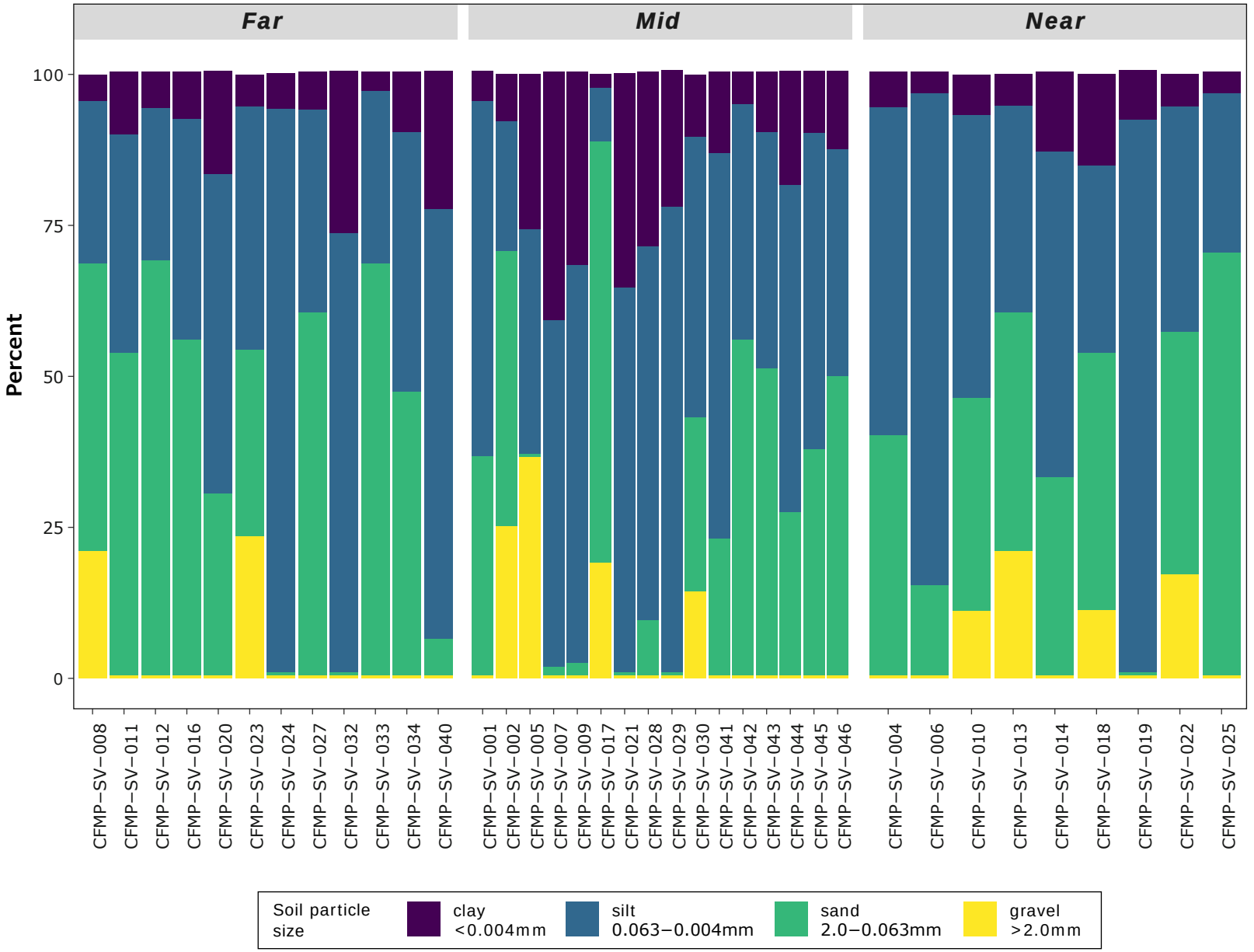
Table 4.3-2 provides summary statistics for COPC concentrations in soil across the CFMP study area and the comparison to the SQ Guideline NPM. As shown in Table 4.3-2, mean concentrations of all COPCs were below the SQ Guideline NPMs.

TABLE 4.3-2 STUDY AREA-WIDE SUMMARY STATISTICS FOR COPC CONCENTRATIONS IN SOIL AND COMPARISON TO SQ GUIDELINE NPMS, 2023

COPC	n > DL	Summary Statistics of COPC Concentrations in Soil 2023, Study Area-wide (n = 42 mg/kg dw)								SQ Guideline NPM (mg/kg dw)
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum	
Aluminum	42	179	13346	7264	1121	15543	12700	23375	36600	40000
Antimony	41	<0.10	0.346	0.213	0.033	0.411	0.290	0.838	0.980	20
Arsenic	42	0.160	6.92	9.01	1.39	9.64	3.98	**32.4**	**38.8**	12
Beryllium	38	<0.10	0.420	0.321	0.050	0.517	0.340	1.24	1.62	75
Cadmium	42	0.0310	0.201	0.181	0.028	0.256	0.133	0.568	0.861	14
Chromium	40	<0.50	16.3	10.3	1.60	19.4	15.3	32.7	50.8	220
Cobalt	42	0.360	6.05	4.12	0.635	7.29	5.81	10.7	24.1	25
Copper	42	2.01	10.98	6.32	0.97	12.9	9.26	21.9	35.6	1100
Iron	42	374	19413	9511	1468	22290	19850	33810	**43400**	35000
Lead	42	0.690	9.13	19.7	3.03	15.1	6.13	12.8	**132**	120
Lithium	37	<2.0	6.48	3.69	0.569	7.60	6.03	13.11	16.6	65
Manganese	42	45.4	777	705	109	990	663	1713	4010	10000
Mercury	42	0.00950	0.0447	0.0298	0.00460	0.0537	0.0387	0.115	0.123	6.6
Molybdenum	42	0.375	1.321	1.145	0.177	1.67	0.805	3.75	5.04	10
Nickel	41	<0.50	11.07	9.54	1.47	14.0	8.95	21.4	58.6	200
Selenium	9	<0.05	-	-	-	-	-	-	0.410	80
Thallium	33	<0.050	0.0836	0.0532	0.00821	0.100	0.0780	0.171	0.307	1.0
Zinc	41	<2.0	55.4	36.3	5.60	66.4	49.6	120	156	10000

Notes:
COPC = contaminant of potential concern; n = number of samples; DL = detection Limit; UCLM = upper confidence limit of the mean; SQ = soil quality; NPM = Numeric Performance Metric; dw = dry weight
Data from all sites sampled in 2023, including CFMP-SV-041 to CFMP-SV-046, were used in calculation of summary statistics in this table.
"-" means that summary statistics, other than minimum and maximum, have not been calculated as more than 70% of samples were < DL.
Bold font with grey shading means concentration was higher than the SQ Guideline NPM.

FIGURE 4.3-1 RESULTS OF THE PARTICLE SIZE ANALYSIS FOR SOIL, 2023



ERM

CLIENT: BW Gold LTD.
GRAPHICS NUMBER: BWG-24ERM-006

FIGURE 4.3-2 CONCENTRATION OF ALUMINUM, ANTIMONY, ARSENIC, BERYLLIUM, CADMIUM AND CHROMIUM IN SOIL IN THE STUDY AREA AND SUBAREAS FOR BASELINE (2021/2022) AND CONSTRUCTION (2023)

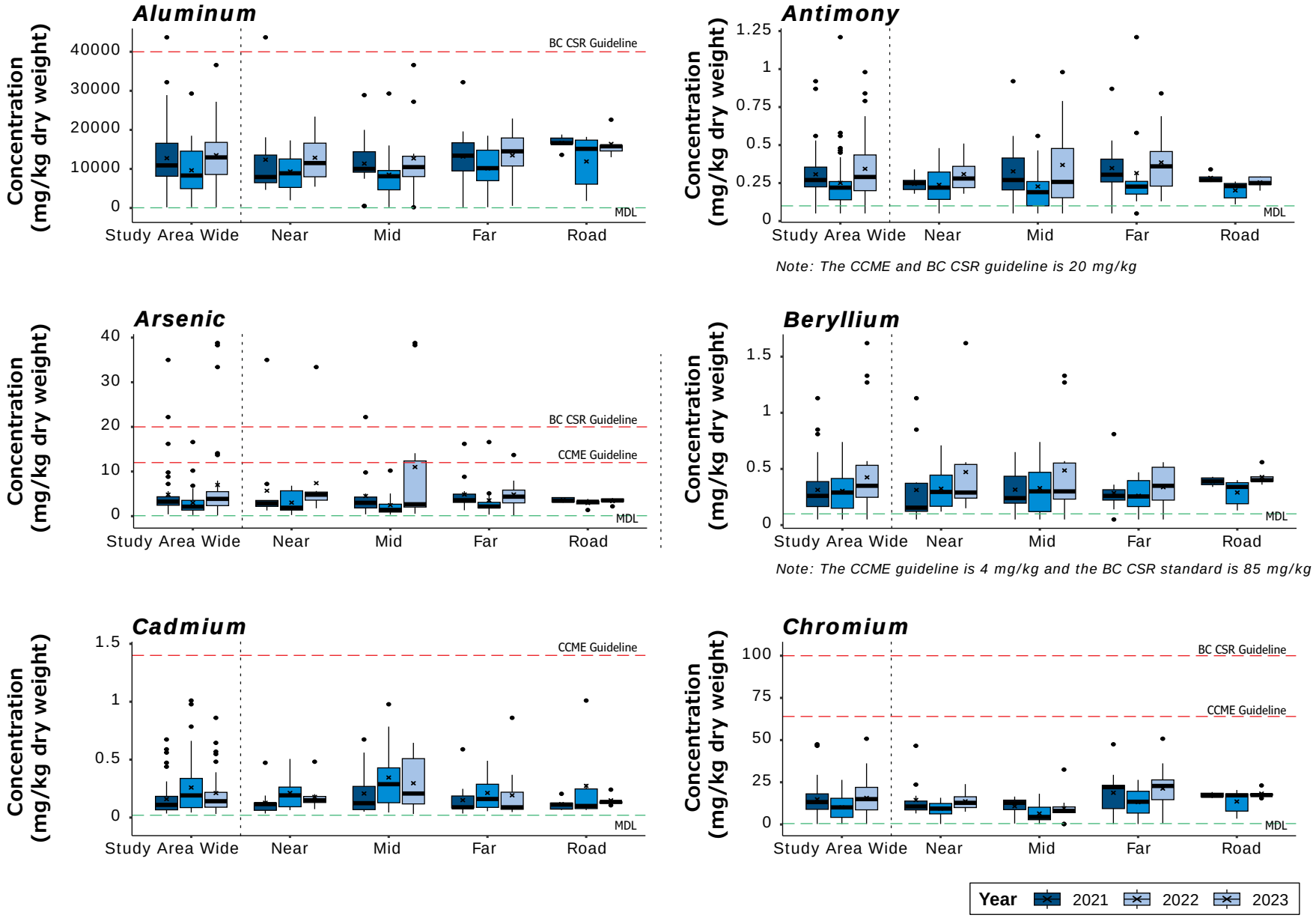
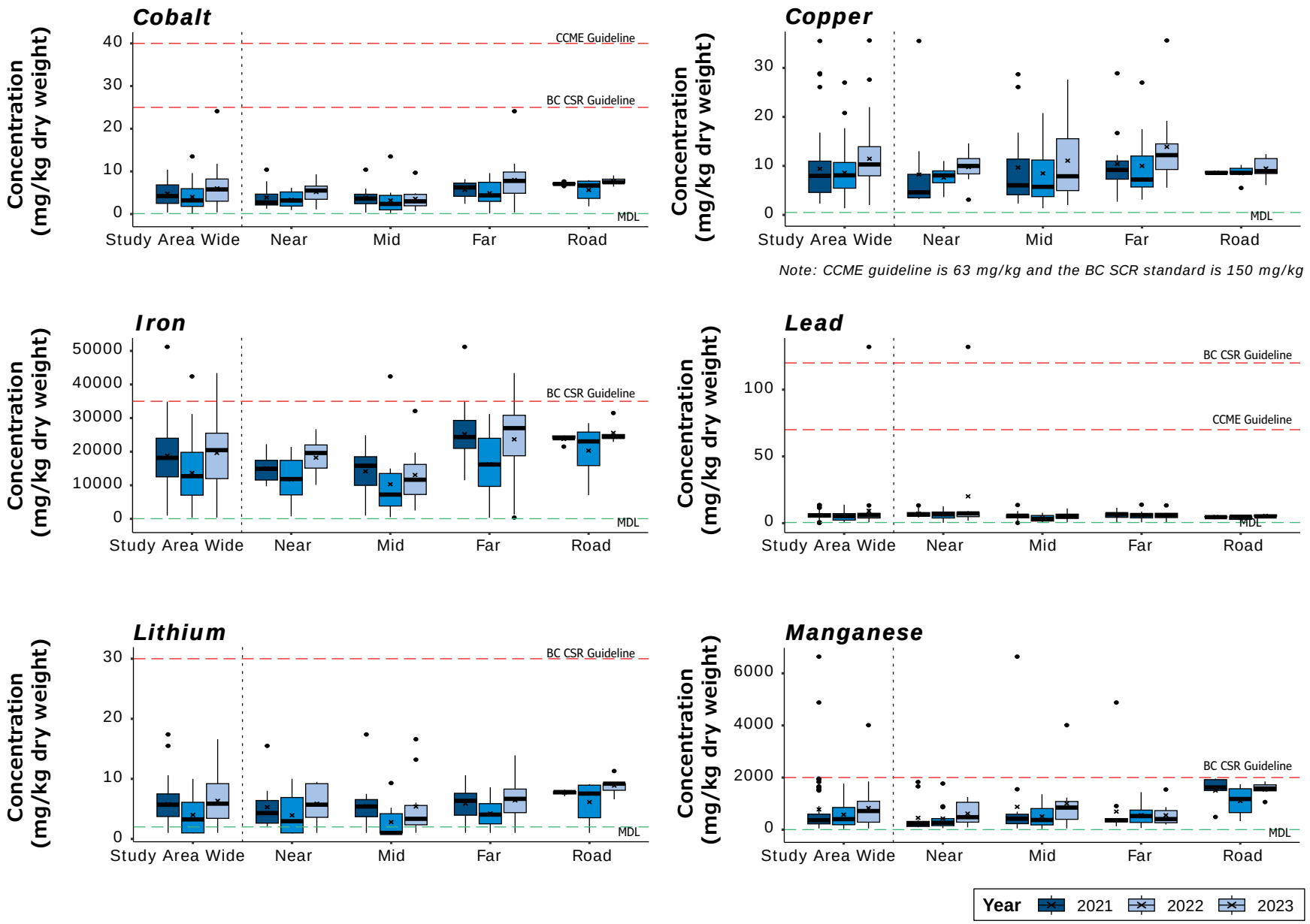
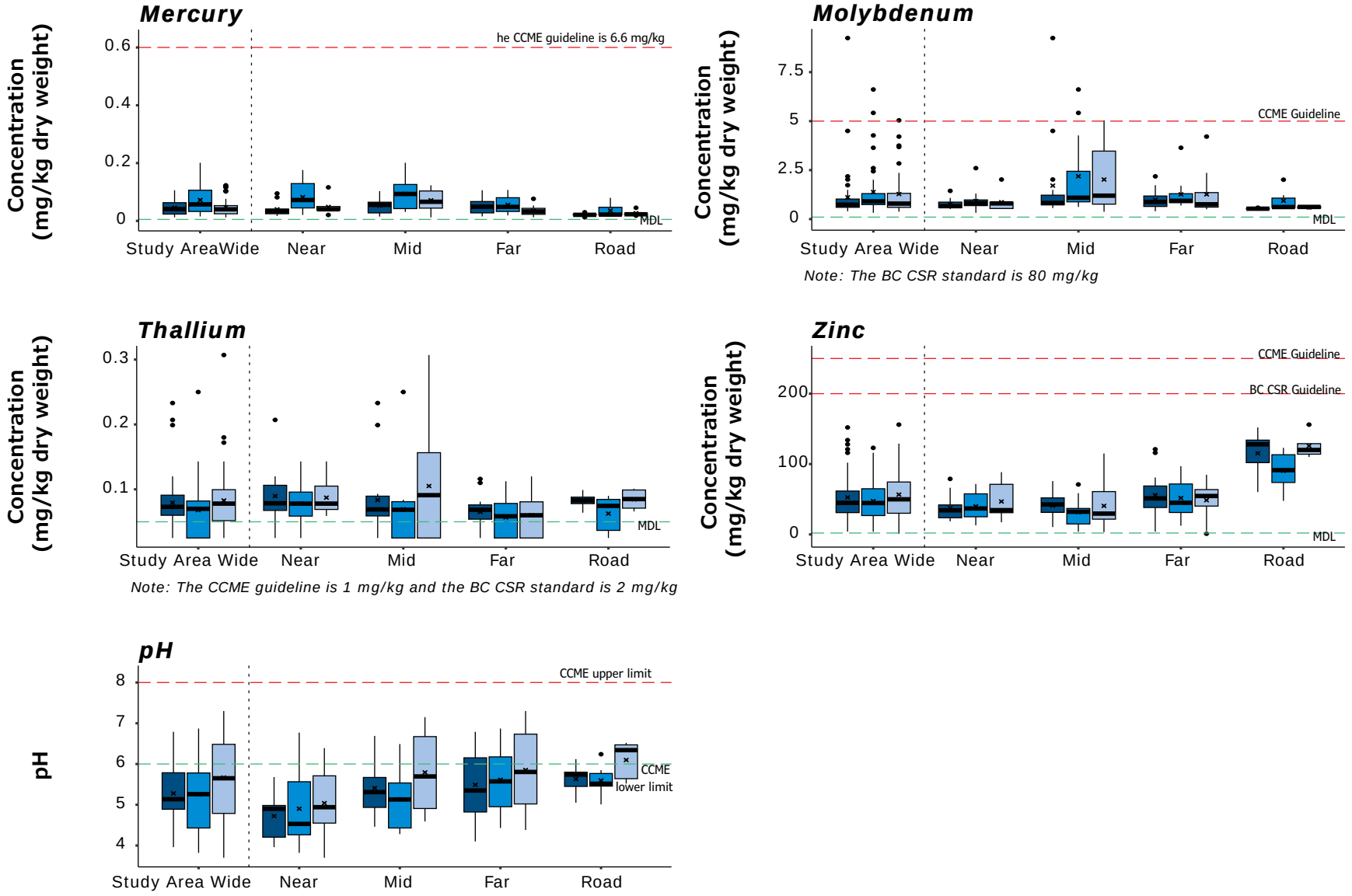


FIGURE 4.3-3 CONCENTRATION OF COBALT, COPPER, IRON, LEAD, LITHIUM AND MANGANESE IN SOIL IN THE STUDY AREA AND SUBAREAS FOR BASELINE (2021/2022) AND CONSTRUCTION (2023)



Note: CCME guideline is 63 mg/kg and the BC SCR standard is 150 mg/kg

FIGURE 4.3-4 CONCENTRATION OF MERCURY, MOLYBDENUM, THALLIUM, ZINC, AND PH IN SOIL IN THE STUDY AREA AND SUBAREAS FOR BASELINE (2021/2022) AND CONSTRUCTION (2023)



Only maximum concentrations of arsenic, iron, and lead were higher than the SQ Guideline NPMs, considering all monitoring sites across the CFMP study area. These higher concentrations are likely due to natural baseline heterogeneity in soil quality and not due to Mine activity as no single site experienced high concentrations of all (or most) COPCs. Iron and lead concentrations only exceeded SQ guideline NPMs at two control sites (CFMP-SV-011 and -034) and one near-field site (CFMP-SV-022), respectively. Arsenic concentrations exceeded the SQ Guideline NPM at one near-field site (CFMP-SV-006), four mid-field sites (CFMP-SV-001, -007, -028, and -046), and one control site (-008).

4.3.3 COMPARISON TO BASELINE SQ NPMS

The mean COPC concentrations in soil samples collected in 2023 were compared to the Baseline SQ NPMs derived in the HHTAM report (ERM 2023f). Sampling sites included in the derivation of Baseline SQ NPM concentrations from the 2021 and 2022 baseline sampling years were CFMP-SC-001 to CFMP-SV-040 and did not include the new mid-field sites collected in 2023. To be consistent, the 2023 dataset for this comparison excluded the sites that were only sampled in 2023 (i.e., mid-field sites CFMP-SV-041 to CFMP-SC-046), but not in 2021 and 2022, as continued sampling of these new mid-field sites is not recommended.

Summary statistics for this dataset are provided in Table 4.3-3 and the comparison between the mean concentration to the Baseline SQ NPMs are shown in Table 4.3-4. Mean concentrations of all COPCs did not exceed their Baseline SQ NPM concentrations in 2023.

4.3.4 COMPARISON TO PREDICTED SQ NPMS

The mean COPC concentrations in soil samples from 2023 were compared to the Predicted Soil NPMs derived in the HHTAM report (ERM 2023f), as shown in Table 4.3-4, using the same 2023 dataset as was used for comparison with Baseline SQ NPMs. Mean concentrations of COPCs did not exceed the Predicted SQ NPM concentrations in 2023.

4.3.5 STATISTICAL ANALYSIS

As per the CFMP, a BACI analysis is only required when an increase in soil COPC concentrations above Baseline and Predicted NPMs is detected. A BACI analysis was not performed for the purposes of the CFMP adaptive management framework because the mean 2023 soil COPC concentrations across the CFMP study area did not exceed the Baseline SQ NPM, and the Predicted SQ NPM, and concentrations are not at levels of concern (i.e., less than SQ Guideline NP).

However, the data were interrogated for any potential trends between years or between subareas. This analysis was completed for two reasons. Firstly, with the wildfire that occurred in July immediately around the mine site, it was possible that changes in soil (or plant and berry, see Section 4.4.5) metal concentrations could have occurred and it would be important to identify any changes from baseline. Second, with the initiation of small mammal sampling in 2023 (see Section 4.7) and with the expectation that there would be limited effects of the Mine on soil and vegetation in 2023 (ERM 2023d), the intent was to incorporate 2023 sampling results for soil, vegetation, and small mammals into the 2021-2022 baseline dataset.

TABLE 4.3-3 STUDY AREA-WIDE SUMMARY STATISTICS FOR COPC CONCENTRATIONS IN SOIL NOT INCLUDING SITES CFMP-SV-041 TO CFMP-SV-046, 2023

COPC	n > DL	Summary Statistics of COPC Concentrations in Soil, Study Area-wide (n = 36; mg/kg dw)							
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Aluminum	36	179	13504	7813	1302	16056	12950	24350	36600
Antimony	35	<0.100	0.344	0.209	0.035	0.412	0.290	0.803	0.980
Arsenic	36	0.160	6.99	9.62	1.60	10.1	3.87	34.6	38.8
Beryllium	32	<0.10	0.425	0.342	0.057	0.537	0.350	1.29	1.62
Cadmium	36	0.0310	0.211	0.192	0.032	0.274	0.141	0.588	0.861
Chromium	34	<0.50	15.7	10.8	1.79	19.2	15.0	33.4	50.8
Cobalt	36	0.360	6.01	4.41	0.735	7.45	5.81	11.1	24.1
Copper	36	2.01	11.5	6.67	1.11	13.6	10.3	23.4	35.6
Iron	36	374	19613	10251	1708	22961	20350	34350	43400
Lead	36	0.690	9.16	21.2	3.54	16.1	5.98	11.6	132
Lithium	31	<2.0	6.34	3.89	0.648	7.61	5.90	13.4	16.6
Manganese	36	45.4	830	743	124	1073	716	1753	4010
Mercury	36	0.0122	0.0471	0.0311	0.00518	0.0573	0.0401	0.117	0.123
Molybdenum	36	0.375	1.28	1.185	0.198	1.67	0.790	3.87	5.04
Nickel	35	<0.50	11.4	10.26	1.71	14.7	9.72	22.1	58.6
Selenium	8	<0.200	-	-	-	-	-	-	0.410
Thallium	28	<0.050	0.0828	0.0552	0.00921	0.101	0.0780	0.174	0.307
Zinc	35	<2.0	56.7	38.8	6.47	69.3	49.9	122	156

Notes:
COPC = contaminant of potential concern; n = number of samples; DL = detection Limit; UCLM = upper confidence limit of the mean; *dw = dry* weight
Data from all sites sampled in 2023 except CFMP-SV-041 to CFMP-SV-046 were used in calculation of summary statistics in this table.
"-" means that summary statistics, other than minimum and maximum, have not been calculated as more than 70% of samples were < DL.

TABLE 4.3-4 COMPARISON OF COPC CONCENTRATIONS IN SOIL TO BASELINE AND PREDICTED SQ NPMS, 2023

COPC	Mean Concentration (mg/kg dw)	Baseline SQ NPM (mg/kg dw)	Predicted SQ NPM (mg/kg dw)
Aluminum	13504	20071	20389
Antimony	0.344	0.50	0.54
Arsenic	6.99	7.7	7.8
Beryllium	0.425	0.55	0.56
Cadmium	0.211	0.39	0.40
Chromium	15.7	23	23
Cobalt	6.01	7.8	8.0
Copper	11.5	16	19
Iron	19613	29009	29467
Lead	9.16	9.9	10
Lithium	6.34	8.9	8.9
Manganese	830	1413	1435
Mercury	0.0471	0.11	0.11
Molybdenum	1.28	2.5	2.5
Nickel	11.4	15	15
Selenium	0.145	0.27	0.35
Thallium	0.0828	0.13	0.13
Zinc	56.7	89	93

Notes:
COPC = contaminant of potential concern; SQ = soil quality; NPM = Numeric Performance Metric; dw = dry weight

The statistical comparisons for soil were carried out using a linear mixed-effects model to compare between years (or site classification) while controlling for repeated measurements across sites. To control for multiple testing, a false-discovery rate correction (Benjamini and Hochberg, 1995) was applied and each test was assessed relative to an alpha of 0.05 using the adjusted p-values. The intraclass correlation coefficient (average correlation among measurements from the same site) was estimated using linear mixed-effects models with site ID as a random effect. Because of small samples sizes, the random effects model sometimes had a singular fit, and so the intraclass correlation coefficient was not calculable for all comparisons. Where the fit was singular, the random effects were removed and a linear model was fit instead.

On a study-area-wide basis as well as on a subarea basis, there were no consistent trends among COPC concentrations in soil discernable from box plots of the data (Figure 4.3-2). This was confirmed by statistical comparisons using a linear mixed effects model with log-transformed data as described in Section 3.8. Summary statistics COPC concentrations in soil for control and near-field (impact) subareas are provided in Tables 4.3-5 and 4.3-6, respectively. Results of the statistical analyses are presented in Appendix C, Tables C.1-1 and C.1-2. There were no statistically significant differences in COPC concentrations in soil between the 2021-2022 cumulative baseline and 2023 ($p > 0.05$).

A comparison of 2023 COPC concentrations between control and near-field (impact) sites showed that there are no significant differences in soil COPC concentrations between these subareas ($p > 0.05$; Appendix Table C.1-3) indicating that there are no detectable effects from the Mine on soil quality.

4.4 PLANT AND BERRY QUALITY

4.4.1 PLANT AND BERRY MONITORING RESULTS

Analytical data for plant and berry samples analyzed in 2023 are provided in Appendix A.2 in the COA from ALS. For compiling summary statistics in the report, samples were grouped into leafy vegetation consisting of willow, sedge, and Labrador tea. No summary statistics were calculated for 2023 berry samples as only two samples were obtained (see Section 3.3.1). Berries were generally sparse likely due to dry climatic conditions. This is similar to the conditions observed in 2022 and abundance of berries in the study area appeared to have declined further in 2023.

Summary statistics for the study area and by subarea for willow, sedge, and Labrador tea samples collected in 2023 are provided in tables in Appendix C (except for willow at near-field and control subareas, which are provided in Section 4.4.5).

The following sections compare the mean COPC concentrations in leafy vegetation to the country foods (CF) guideline, Baseline, and Predicted NPMs for vegetation defined in the CFMP and the HHTAM report (ERM 2023f).

4.4.2 COMPARISON TO CF GUIDELINE NPMS

Table 4.4-1 provides summary statistics for COPC concentrations in plants (leafy vegetation of willow, sedge, and Labrador tea) across the CFMP study area. Table 4.4-2 shows the concentrations measured in two berry samples collected at CFMP-SV-001 and -006. Table 4.4-1 also includes a comparison of concentrations to the CF Guideline NPMs for plants.

As shown in Table 4.4-1, mean concentrations of all COPCs in plants were below the CF Guideline NPMs. Maximum and 95% percentile concentrations of aluminum, cadmium, cobalt, and iron, and the maximum concentrations of arsenic, lead, manganese, molybdenum, nickel, thallium, and zinc were higher than the CF Guideline NPMs. These higher concentrations are likely due to natural baseline heterogeneity in plant quality and not due to Mine activity, as no single site experienced high concentrations of all (or most) COPCs.

TABLE 4.3-5 CONTROL SUBAREA SUMMARY STATISTICS FOR COPC CONCENTRATIONS IN SOIL, 2023

COPC	n > DL	Summary Statistics of COPC Concentrations in Soil, Control Subarea (n = 12 mg/kg dw)							
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Aluminum	12	552	13449	7404	2137	17638	14500	22790	22900
Antimony	12	0.130	0.386	0.213	0.062	0.506	0.360	0.758	0.840
Arsenic	12	0.160	4.85	3.6	1.05	6.91	4.37	10.5	13.7
Beryllium	10	<0.10	0.338	0.190	0.055	0.446	0.355	0.555	0.560
Cadmium	12	0.0460	0.192	0.233	0.067	0.324	0.089	0.590	0.861
Chromium	12	0.630	21.3	14.38	4.15	29.4	22.8	42.8	50.8
Cobalt	12	0.360	7.99	6.35	1.83	11.6	7.77	17.3	24.1
Copper	12	5.56	13.9	7.75	2.24	18.3	12.20	26.6	35.6
Iron	12	374	23650	13189	3807	31112	27000	39165	43400
Lead	12	0.770	5.73	3.3	0.964	7.62	5.93	10.2	13.3
Lithium	10	<2.0	6.43	3.70	1.07	8.52	6.70	11.6	13.9
Manganese	12	197	553	399	115	778	406	1168	1540
Mercury	12	0.01250	0.0348	0.0191	0.00551	0.0456	0.0328	0.064	0.076
Molybdenum	12	0.500	1.26	1.09	0.313	1.87	0.76	3.19	4.21
Nickel	12	1.01	16.2	15.1	4.37	24.8	14.9	39.6	58.6
Selenium	2	<0.20	-	-	-	-	-	-	0.270
Thallium	8	<0.050	0.0603	0.0316	0.0091	0.078	0.0600	0.103	0.120
Zinc	11	<2.0	48.6	25.4	7.32	62.9	54.6	77.9	84.8

Notes:
COPC = contaminant of potential concern; n = number of samples; DL = detection limit; UCLM = upper confidence limit of the mean; dw = dry weight
"-" means that summary statistics, other than minimum and maximum, have not been calculated as more than 70% of samples were below DL.

TABLE 4.3-6 NEAR-FIELD SUBAREA SUMMARY STATISTICS FOR COPC CONCENTRATIONS IN SOIL, 2023

COPC	n > DL	Summary Statistics of Parameter Concentrations in Soil 2023, Near-field Subarea (n = 9; mg/kg dw)							
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Aluminum	9	5450	12868	5922	1974	16737	11500	21480	23400
Antimony	9	0.180	0.309	0.113	0.038	0.383	0.280	0.486	0.510
Arsenic	9	1.76	7.39	9.84	3.28	13.8	4.81	22.3	33.4
Beryllium	9	0.150	0.472	0.452	0.151	0.767	0.290	1.20	1.62
Cadmium	9	0.0730	0.178	0.121	0.040	0.257	0.149	0.370	0.482
Chromium	9	7.55	13.69	5.06	1.69	17.0	12.8	21.3	23.9
Cobalt	9	1.08	5.17	2.44	0.813	6.76	5.52	8.51	9.31
Copper	9	3.11	9.77	3.39	1.13	12.0	9.99	14.0	14.6
Iron	9	10100	18211	5575	1858	21853	19600	25220	26700
Lead	9	1.88	20.1	42.0	14.0	47.6	7.32	82.9	132
Lithium	8	<2.0	5.87	3.00	1.00	7.82	5.70	9.46	9.50
Manganese	9	90.5	615	427	142	893	479	1182	1250
Mercury	9	0.0206	0.0483	0.0270	0.00899	0.0659	0.0402	0.090	0.116
Molybdenum	9	0.520	0.861	0.459	0.153	1.16	0.800	1.56	2.02
Nickel	9	1.74	7.95	4.12	1.37	10.6	8.74	13.5	13.7
Selenium	3	<0.20	0.152	0.0863	0.0288	0.209	<0.20	0.292	0.340
Thallium	9	0.0590	0.0872	0.0287	0.0096	0.106	0.0780	0.133	0.143
Zinc	9	17.2	46.8	26.9	8.96	64.4	34.5	85.7	88.5

Notes:
COPC = contaminant of potential concern; n = number of samples; DL = detection Limit; UCLM = upper confidence limit of the mean; SQ = soil quality; NPM = Numeric Performance Metric; dw = dry weight

TABLE 4.4-1 STUDY AREA-WIDE SUMMARY STATISTICS FOR COPC CONCENTRATIONS IN PLANTS AND COMPARISON TO CF GUIDELINE NPMS, 2023

COPC	n > DL	Summary Statistics of COPC Concentrations in Leafy Vegetation, Study Area-wide (n = 79; mg/kg ww)								CF Guideline NPM for Plants (mg/kg ww)
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum	
Aluminum	79	5.07	27.2	39.5	4.44	35.9	14.9	**82.4**	**257**	45
Antimony	6	<0.002	-	-	-	-	-	-	0.00851	0.050
Arsenic	68	<0.004	0.0284	0.0338	0.0038	0.0359	0.0159	0.0912	**0.192**	0.096
Beryllium	11	<0.002	-	-	-	-	-	-	0.0369	0.55
Cadmium	72	<0.001	0.298	0.679	0.0764	0.448	0.0209	**1.09**	**4.68**	0.98
Chromium	45	<0.01	0.0385	0.0547	0.00615	0.0505	0.0208	0.131	0.344	0.35
Cobalt	73	<0.004	0.206	0.307	0.0345	0.273	0.102	**0.667**	**2.08**	0.65
Copper	79	0.104	1.10	0.513	0.0577	1.21	1.12	1.84	2.99	30
Iron	79	14.1	47.6	61.9	6.96	61.2	28.4	**144**	**413**	129
Lead	79	0.00733	0.0237	0.0196	0.00221	0.0281	0.0177	0.0505	**0.120**	0.11
Lithium	2	<0.1	-	-	-	-	-	-	0.286	0.43
Manganese	79	28.1	277	246	27.6	331	182	827	**1139**	963
Mercury	79	0.00201	0.00475	0.00148	0.000167	0.00508	0.00464	0.00675	0.00986	0.026
Molybdenum	79	0.0316	0.736	1.08	0.122	0.974	0.370	2.91	**6.64**	3.5
Nickel	53	<0.04	0.265	0.371	0.0418	0.347	0.127	0.821	**2.53**	1.2
Selenium	4	<0.01	-	-	-	-	-	-	0.0511	0.28
Thallium	28	<0.0004	0.000893	0.000939	0.000106	0.00110	0.000472	0.00265	**0.00570**	0.0056
Zinc	79	4.55	28.5	28.4	3.20	34.8	15.0	73.4	**155**	98

Notes:
COPC = contaminant of potential concern; n = number of samples; DL = detection limit; UCLM = upper confidence limit of the mean; CF = country foods; NPM = Numeric Performance Metric; ww = wet weight
Data from all sites sampled in 2023, including CFMP-SV-041 to CFMP-SV-046, were used in calculation of summary statistics in this table.
Bold font with grey shading means that concentrations were higher than the CF Guideline NPM.
"-" means that summary statistics, other than minimum and maximum, have not been calculated as more than 70% of samples were below DL.

TABLE 4.4-2 STUDY AREA-WIDE CONCENTRATIONS OF COPCS IN BERRIES AND COMPARISON TO CF GUIDELINE NPMS FOR BERRIES, 2023

COPC	006-HUCK	001-HUCK	CF Guideline NPM for Berries (mg/kg ww)
	Near-field	Mid-field	
Aluminum	11.6	2.7	49
Antimony	0.00110	0.00076	0.050
Arsenic	**0.975**	0.010	0.027
Beryllium	0.00110	0.00076	0.55
Cadmium	0.00526	0.00038	0.21
Chromium	0.0219	0.011856	0.35
Cobalt	0.00548	0.00152	0.06
Copper	1.86	0.76	30
Iron	16.6	2.7	46
Lead	0.0374	0.0038	0.11
Lithium	0.0548	0.0380	0.40
Manganese	39.2	27.4	332
Mercury	0.000548	0.000380	0.026
Molybdenum	0.0493	0.0445	1.8
Nickel	0.103	0.0350	2.2
Selenium	0.0110	0.0038	0.28
Thallium	0.000219	0.000152	0.0056
Zinc	3.02	0.877	30

Notes:
COPC = contaminant of potential concern; n = number of samples; CF = country foods; NPM = Numeric Performance Metric; ww = wet weight.
Bold font with grey shading means concentrations greater than the CF Guideline NPM.

As only two berry samples were collected in 2023, individual sample concentrations, instead of the mean concentration, were compared with the CF Guideline NPM. The arsenic concentration in the first huckleberry sample (0.010 mg/kg ww from CFMP-SV-001) was well below the CF Guideline NPM of 0.027 mg/kg ww. However, the concentration of arsenic (0.975 mg/kg ww from CFMP-SV-006) in the second huckleberry sample was greater than the CF Guideline NPM of 0.027 mg/kg ww for berries (Table 4.4-2). Arsenic concentrations in berries have generally been very low (0.014 mg/kg ww average, with a maximum of 0.097 mg/kg ww in 2021-2022; n = 83) (ERM 2023b), or not detectable. The concentration of 0.975 mg/kg in the huckleberry sample from CFMP-SV-006 was confirmed by re-assessment (in duplicate) by ALS on January 16, 2024, so was not a result of a laboratory issue. It is, therefore, likely that the high arsenic concentration measured in sample 006-HUCK is an outlier and may be due to contamination or dusting (e.g., wildfire-related dust settling on berries), as station CFMP-SV-006 is located at the southern limit of the 2023 Davidson Creek wildfire.

4.4.3 COMPARISON TO BASELINE PLANT AND BERRY NPMS

The mean COPC concentrations in plant samples collected in 2023 were compared to the Baseline Plant NPMs derived in the HHTAM Report (ERM 2023f). Similar to soils, sampling sites included in the derivation of Baseline Plant NPM concentrations from the 2021 and 2022 baseline sampling years were CFMP-SC-001 to CFMP-SV-040. As such, the 2023 dataset for this comparison excluded any sites that were only sampled in 2023, but not in 2021 and 2022, namely mid-field sites CFMP-SV-041 to CFMP-SC-046. Summary statistics for this dataset are provided in Table 4.4-3. The comparison between the mean concentration of COPCs measured in 2023 to the Baseline Plant NPMs are shown in Table 4.4-4. Mean concentrations of COPCs did not exceed the Baseline Plant NPM concentrations in 2023. As only two berry samples were collected in 2023, the mean could not be calculated and compared to the Baseline Berry NPM.

4.4.4 COMPARISON TO PREDICTED PLANT AND BERRY NPMS

The mean COPC concentrations in plant samples from 2023 were compared to the Predicted Plant NPMs derived in the HHTAM report (ERM 2023f). Comparison of the mean concentration from samples collected across the study area not including the new mid-field sites CFMP-SV-041 to -046 to the Predicted Plant NPMs are shown in Table 4.4-4. Mean concentrations of COPCs did not exceed the Predicted SQ NPM concentration in 2023. As only two berry samples were collected in 2023, the mean could not be calculated and compared to the Predicted Berry NPM.

4.4.5 STATISTICAL ANALYSIS

As per the CFMP, a BACI analysis is only required when an increase in plant and berry COPC concentrations above baseline and predicted concentrations is detected. A BACI analysis was not performed for plants because the mean 2023 COPC concentrations in leafy vegetation did not exceed the CF Guideline NPM, Plant Baseline NPM, and the Predicted Plant NPM and there were insufficient berry samples available for this analysis.

However, data were interrogated for any potential trends between years or between subareas. This analysis was completed for two reasons. Firstly, with the wildfire that occurred in July immediately around the mine site, it was possible that changes in plant and berry metal concentrations could have occurred and it would be important to identify any changes from baseline. Second, with the initiation of small mammal sampling in 2023 (see Section 4.7) and with the expectation that there would be limited effects of the Mine on vegetation in 2023 (ERM 2023d), the intent was to incorporate 2023 sampling results for soil, vegetation, and small mammals into the 2021-2022 baseline dataset.

Box plots illustrating summary statistics (mean, percentile ranges, and potential outliers) for the different subareas as well as study area-wide for baseline and monitoring periods are presented in Figure 4.4-1 and 4.4-2 for willow and in Appendix E.1 and E.2 for Labrador tea and sedge.

TABLE 4.4-3 STUDY AREA-WIDE SUMMARY STATISTICS FOR COPC CONCENTRATIONS IN PLANTS NOT INCLUDING SITES CFMP-SV-041 TO CFMP-SV-046, AND COMPARISON TO CF GUIDELINE NPMS, 2023

COPC	n > DL	Summary Statistics of COPC Concentrations in Leafy Vegetation, Study Area-wide (n = 71; mg/kg ww)							
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Aluminum	71	5.07	28.0	41.2	4.89	37.6	14.9	85.2	257
Antimony	5	<0.002	-	-	-	-	-	-	0.00851
Arsenic	60	0.00310	0.0297	0.0350	0.00416	0.0378	0.0181	0.100	0.192
Beryllium	9	<0.002	-	-	-	-	-	-	0.0186
Cadmium	65	<0.001	0.312	0.712	0.0845	0.478	0.0191	1.24	4.68
Chromium	44	<0.01	0.0415	0.0569	0.00675	0.0547	0.0221	0.138	0.344
Cobalt	66	<0.004	0.172	0.210	0.0249	0.221	0.0562	0.632	0.842
Copper	71	0.104	1.12	0.518	0.0615	1.24	1.12	1.93	2.99
Iron	71	14.1	49.9	64.8	7.69	65.0	29.0	151	413
Lead	71	0.00733	0.0244	0.0204	0.00243	0.0291	0.0181	0.055	0.120
Lithium	2	<0.1	-	-	-	-	-	-	0.286
Manganese	71	28.1	278	250	29.6	336	194	852	1139
Mercury	71	0.00201	0.00474	0.00154	0.000183	0.00510	0.00464	0.00675	0.00986
Molybdenum	71	0.0316	0.715	1.09	0.130	0.969	0.341	2.92	6.64
Nickel	49	<0.04	0.273	0.386	0.0458	0.362	0.127	0.826	2.53
Selenium	4	<0.01	-	-	-	-	-	-	0.0511
Thallium	22	<0.0004	0.000750	0.000686	0.0000814	0.000909	0.000458	0.00210	0.00405
Zinc	71	4.77	27.2	27.1	3.21	33.5	15.0	61.1	155

Notes:
COPC = contaminant of potential concern; n = number of samples; DL = detection limit; UCLM = upper confidence limit of the mean; CF = country foods; NPM = Numeric Performance Metric; ww = wet weight
Data from all sites sampled in 2023 except CFMP-SV-041 to CFMP-SV-046 were used in calculation of summary statistics in this table.
"-" means that summary statistics, other than minimum and maximum, have not been calculated as more than 70% of samples were below DL.

TABLE 4.4-4 COMPARISON OF COPC CONCENTRATIONS IN PLANTS TO BASELINE AND PREDICTED PLANT NPMS, 2023

COPC	Mean Concentration in Plants (mg/kg ww)	Baseline Plant NPM (mg/kg ww)	Predicted Plant NPM (mg/kg ww)
Aluminum	28.0	45	45
Antimony	0.00227	0.0094	0.010
Arsenic	0.0297	0.096	0.13
Beryllium	0.00283	0.012	0.0125
Cadmium	0.312	0.98	1.0
Chromium	0.0415	0.14	0.15
Cobalt	0.172	0.65	0.67
Copper	1.12	5.7	8.5
Iron	49.9	129	132
Lead	0.0244	0.17	0.18
Lithium	0.103	0.43	0.43
Manganese	278	963	978
Mercury	0.00474	0.014	0.014
Molybdenum	0.715	3.5	3.6
Nickel	0.273	1.2	1.2
Selenium	0.0114	0.097	0.13
Thallium	0.000750	0.0078	0.0080
Zinc	27.2	98	105

Notes:
COPC = contaminant of potential concern; NPM = Numeric Performance Metric; ww = wet weight

Because willow is widely distributed throughout the study area, it has been collected consistently at each soil and vegetation sampling site for three years (except for CFMP-SV-001, -004, and -017 in 2023, see Sections 3.2.1 and 3.3.1) for a total of 109 samples. Thus, statistical power (see ERM 2023b) and statistical comparisons are more reliable for willow than for other species collected under the CFMP (i.e., Labrador tea, sedge, or berries). Statistical analysis results tables are presented for Labrador tea and sedge (Appendix Tables C.2-4, C.2-5, and C.2-6), but the discussion will focus on the results for willow.

FIGURE 4.4-1 CONCENTRATION OF ALUMINUM, ARSENIC, CADMIUM AND COBALT IN WILLOW SAMPLES IN THE STUDY AREA AND SUBAREAS FOR BASELINE (2021/2022) AND CONSTRUCTION (2023)

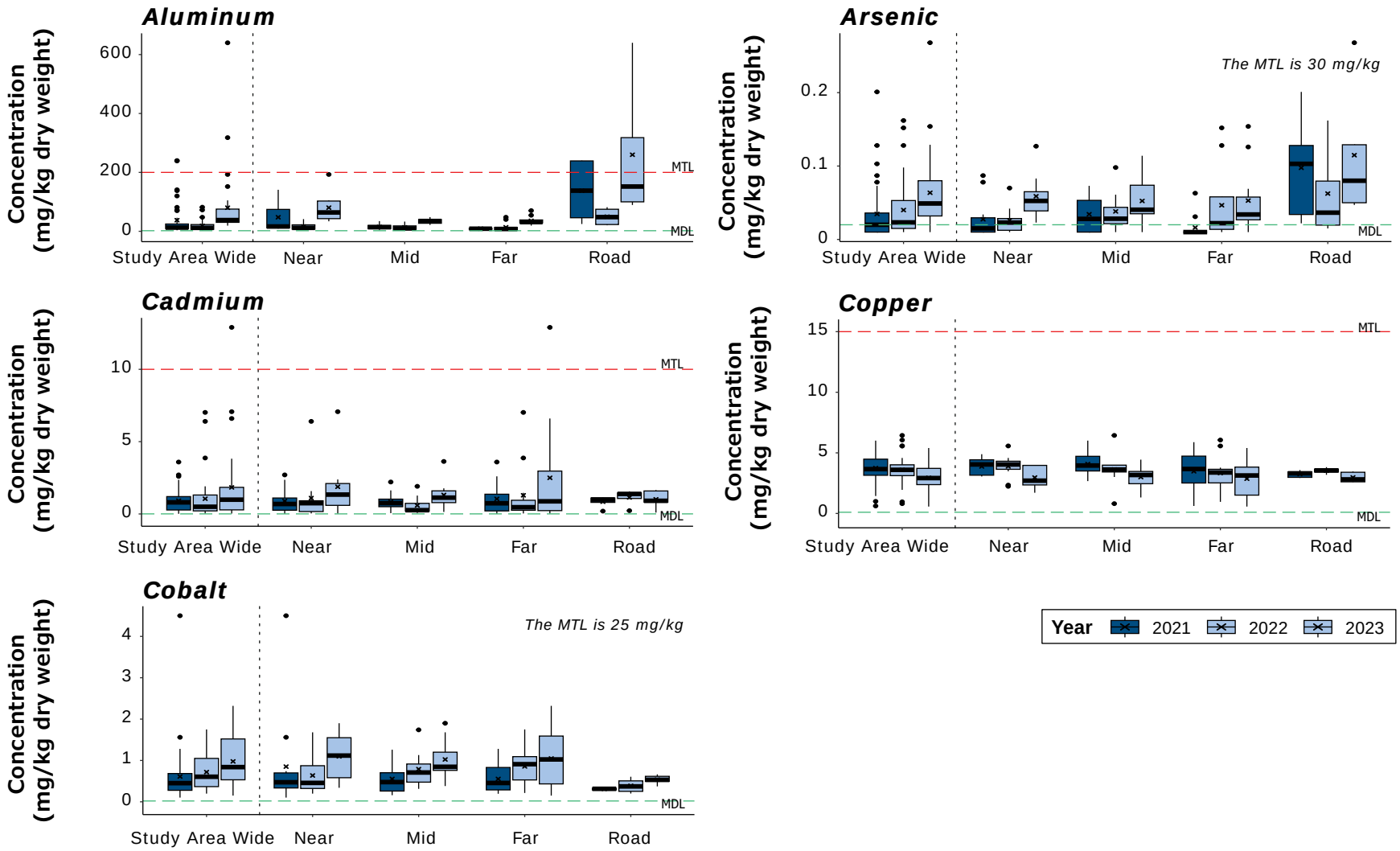
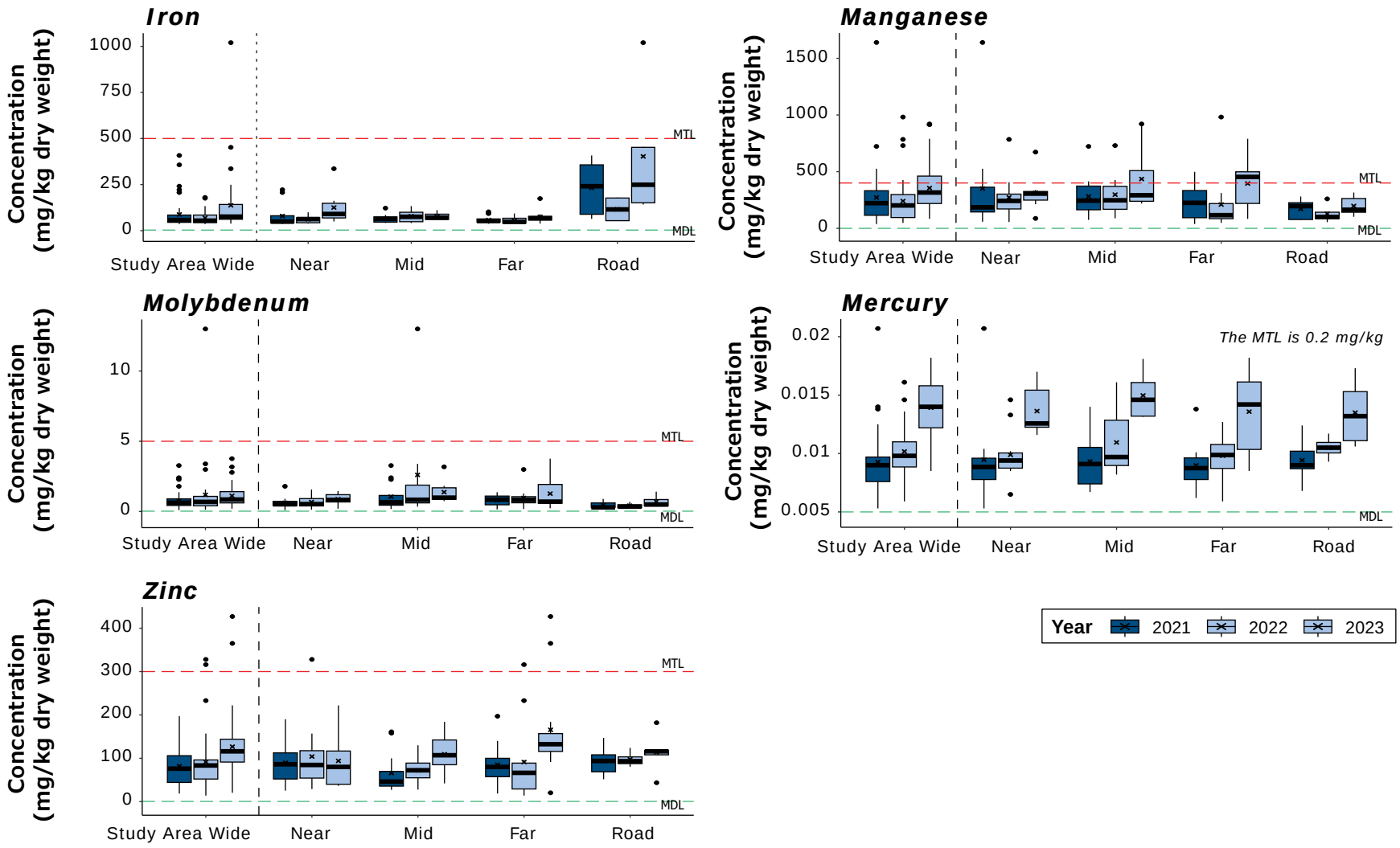


FIGURE 4.4-2 CONCENTRATION OF IRON, MANGANESE, MOLYBDENUM, MERCURY, AND ZINC IN WILLOW SAMPLES IN THE STUDY AREA AND SUBAREAS FOR BASELINE (2021/2022) AND CONSTRUCTION (2023)



Using a linear mixed effects model with log-transformed data as described in Sections 3.8.2 and 4.3.5, on a study area-wide basis there are several statistically significant differences in COPC concentrations in willow tissues between baseline collection years (2021/2022) and monitoring year 2023 (Appendix Table C.2-4). Out of the COPCs with a detection rate of greater than 30% (i.e., fewer than 70% non-detects), the analysis showed an increasing trend for concentrations of aluminum, arsenic, cobalt, iron, manganese, mercury, molybdenum, and zinc, whereas copper decreased, and cadmium had no significant change ($p < 0.05$). However, only aluminum has an effects ratio higher than 100% (doubling) across the study area. This increase (> 100%) in aluminum is also observed in Labrador tea and sedge (Appendix Table C.2-4). The increase in aluminum in the three species is observable in all subareas and, thus, is unlikely an effect of Mine construction activities (Appendix Table C.2-5). Because of the statistically significant differences in tissue concentrations of COPCs, it is not recommended to include the 2023 vegetation data in the cumulative 2021-2022 baseline.

Table 4.4-5 and 4.4-6 present the summary statistics for willow samples collected in 2023 for near-field (impact) and control subareas, respectively. A comparison of 2023 COPC concentrations between control and near-field (impact) sites for willow samples (Appendix Table C.2-6) showed that there are no significant differences in willow tissue COPC concentrations between these subareas, except for aluminum. The mean aluminum concentration at near-field sites (80.6 mg/kg ww) is significantly higher than the mean aluminum concentration at control sites (35.5 mg/kg ww) at a significance level of 0.05. During baseline sampling in 2021, a similar trend was observed between means in aluminum concentration at near-field (51.0 mg/kg ww) and control (9.1 mg/kg ww) sites; however this difference was not found to be significant using a non-parametric (Kruskal-Wallis) test and a significance level of 0.001 (Bonferroni correction), and was not observed in samples in 2022 (near-field site mean of 16 mg/kg ww and control site mean of 15 mg/kg ww). It is likely that the observed difference in aluminum concentration between near-field and control sites is due to natural variation and not due to either Mine dust emissions or wildfire-related dusting.

4.5 SURFACE WATER

4.5.1 SURFACE WATER QUALITY MONITORING RESULTS

Tables for 2023 raw water quality data are located in Appendix A.3. Laboratory certificates of analysis from ALS are provided in the *2023 AEMP Interpretive Report* (ERM 2024). Raw data for October to December 2022 were provided in the *2022 CFMP Annual Report* (ERM 2023d) and *2022 AEMP Interpretive Report* (ERM 2023c). Box plots illustrating summary statistics (mean, percentile ranges, and potential outliers) for control and for impact sites for Baseline and Construction monitoring periods are located in Appendix E.3.

4.5.2 COMPARISON TO DRINKING WATER QUALITY GUIDELINE (DWQG) NPMS

Table 4.5-1 provides summary statistics for COPC concentrations for all monitoring sites (both control and impact sites) within the CFMP study area listed in Table 3.4-1 for the monitoring period between October 1, 2022 and December 31, 2023. The data from October to December 2022 were included in the summary statistics and NPM comparisons for the 2023 monitoring period as this was a period of only three months after Early Works Construction began and did not constitute a full year. As a result, reporting for water quality for 2023 includes 15 months of data.

TABLE 4.4-5 NEAR-FIELD SUBAREA SUMMARY STATISTICS FOR COPC CONCENTRATIONS IN WILLOW, 2023

COPC	n > DL	Summary Statistics for COPC Concentrations in Willow, Near-field Subarea (n = 8 mg/kg ww)							
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Aluminum	8	34.0	80.6	53	18.8	118	65.5	162	193
Antimony	0	<0.002	-	-	-	-	-	-	<0.010
Arsenic	8	0.0230	0.0589	0.033	0.0116	0.082	0.053	0.112	0.127
Beryllium	4	<0.002	0.0199	0.0197	0.0070	0.0335	0.0100	0.0506	0.053
Cadmium	8	0.0283	1.90	2.28	0.805	3.48	1.34	5.48	7.07
Chromium	5	<0.01	0.100	0.0962	0.0340	0.166	0.0715	0.254	0.306
Cobalt	8	0.339	1.08	0.576	0.204	1.48	1.03	1.81	1.90
Copper	8	1.710	2.93	0.91	0.323	3.56	2.55	4.00	4.00
Iron	8	49.7	125	94	33.3	190	88.5	275	336
Lead	8	0.0350	0.0690	0.0315	0.01113	0.0908	0.0600	0.116	0.124
Lithium	0	<0.1	-	-	-	-	-	-	<0.1
Manganese	8	87.6	318	167	59.1	433	307	562	673
Mercury	8	0.0116	0.0138	0.0020	0.0007	0.0152	0.0131	0.0166	0.0170
Molybdenum	8	0.1950	0.88	0.40	0.142	1.16	0.848	1.37	1.5
Nickel	7	<0.04	1.363	1.00	0.353	2.054	1.335	2.70	3.04
Selenium	0	<0.01	-	-	-	-	-	-	<0.01
Thallium	3	<0.0004	0.00254	0.00237	0.000839	0.00418	0.00100	0.00621	0.0074
Zinc	8	36.5	94.3	64.4	22.75	138.9	80.1	195	222

Notes:
COPC = contaminant of potential concern; n = number of samples; DL = detection Limit; UCLM = upper confidence limit of the mean; ww = wet weight
"-" means that summary statistics, other than minimum and maximum, have not been calculated as more than 70% of samples were below DL.

TABLE 4.4-6 CONTROL SUBAREA SUMMARY STATISTICS FOR COPC CONCENTRATIONS IN WILLOW, 2023

COPC	n > DL	Summary Statistics of COPC Concentrations in Willow, Control Subarea (n = 12, mg/kg ww)							
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Aluminum	12	19.2	35.5	14	4.1	44	31.2	62	70
Antimony	0	<0.002	-	-	-	-	-	-	<0.002
Arsenic	11	<0.004	0.0529	0.044	0.0127	0.078	0.034	0.139	0.154
Beryllium	1	<0.002	0.00625	-	-	0.00625	0.00500	0.0118	0.020
Cadmium	12	0.0339	2.50	3.82	1.10	4.66	0.873	9.44	12.9
Chromium	4	<0.001	0.042	0.029	0.0084	0.059	0.0250	0.095	0.11
Cobalt	12	0.150	1.05	0.680	0.196	1.43	1.03	1.94	2.32
Copper	12	0.570	2.87	1.51	0.435	3.72	3.14	4.71	5.40
Iron	12	38.1	74.9	34.3	9.9	94.3	67.0	127	174
Lead	12	0.0260	0.0468	0.0148	0.00427	0.0551	0.0445	0.0727	0.0760
Lithium	0	<0.1	-	-	-	-	-	-	<0.1
Manganese	12	83.6	396	212	61.1	515	454	694	790
Mercury	12	0.0085	0.0136	0.0034	0.0010	0.0155	0.0142	0.0180	0.0182
Molybdenum	12	0.2280	1.27	1.13	0.326	1.91	0.700	3.22	3.8
Nickel	10	<0.04	1.50	1.85	0.534	2.55	1.06	4.46	6.68
Selenium	1	<0.01	-	-	-	-	-	-	0.118
Thallium	3	<0.0004	-	-	-	-	-	-	0.0090
Zinc	12	20.4	166	115	33.3	231	133	393	427

Notes:
COPC = contaminant of potential concern; n = number of samples; DL = detection Limit; UCLM = upper confidence limit of the mean;
ww = wet weight
"-" means that summary statistics, other than minimum and maximum, have not been calculated as more than 70% of samples were below DL.

TABLE 4.5-1 STUDY AREA-WIDE SUMMARY STATISTICS OF COPC CONCENTRATIONS IN SURFACE WATER, 2023

COPC	n > DL	Summary Statistics of COPC Concentrations in Surface Water, Study Area-wide (n = 538; mg/L)[a]						DWQG NPM [b] (mg/L)
		Minimum	Mean	Median	95% UCLM	95th Percentile	Maximum	
Aluminum	526	<0.003	0.0925	0.0291	0.112	0.395	**3.39**	2.9
Antimony	16	<0.00010	-	-	-	-	0.000200	0.006
Arsenic	538	0.000150	0.000674	0.000650	0.000700	0.00120	0.00296	0.01
Beryllium	52	<0.00002	-	-	-	-	0.000122	0.008
Cadmium	148	<0.000006	-	-	-	-	0.0000486	0.005
Chromium	62	<0.00050	-	-	-	-	0.00287	0.05
Cobalt	59	<0.00010	-	-	-	-	0.000880	0.001
Copper	105	<0.00050	0.000555	0.000250	0.000817	0.00103	0.0503	1.5
Iron	520	<0.010	0.206	0.155	0.227	0.522	2.68	6.5
Lead	82	<0.000050	-	-	-	-	0.00408	0.005
Lithium	2	<0.0010	-	-	-	-	0.00150	0.008
Manganese	536	<0.00010	0.0253	0.0150	0.0301	0.0649	**0.942**	0.12
Mercury	50	<0.0000060	-	-	-	-	0.0000157	0.001
Molybdenum	538	0.000102	0.000668	0.000677	0.000690	0.00103	0.00272	0.088
Nickel	39	<0.00050	-	-	-	-	0.00450	0.08
Selenium	313	<0.000050	0.0000515	0.0000550	0.0000539	0.0000912	0.000370	0.01
Thallium	3	<0.000010	-	-	-	-	0.0000420	ng
Zinc	57	<0.0030	-	-	-	-	0.0630	3.0

Notes:
COPC = contaminant of potential concern; n = number of samples; DL = detection limit; 95% UCLM = 95% upper confidence limit of the mean; DWQG = drinking water quality guideline; NPM = Numerical Performance Metric; ng = no drinking water quality guideline or standard is available.
Concentrations measured to be less than the DL were replaced with concentrations of 0.5 x DL for the purpose of calculating summary statistics.
"-" means that summary statistics, other than minimum and maximum, have not been calculated as more than 70% of samples were below DL.
Data collected between October 1, 2022 and December 31, 2023 were included in the calculation of summary statistics.
The 95% UCLM was calculated using bootstrapping methods, which are free of parametric assumptions.
[a] Sites: DC-05, DC-10, DC-15, DC-20, 661-03, 661-04, 661-05, 661-10, 661-20, CC-03, CC-05, CC-10, CC-15, CC-20, CC-30, CC-40, 705-05, 705-10, TC-01, TC-05, TC-10, TC-15, and FC-01, TL-01, and KL-01.
[b] DWQG NPM = drinking water quality guideline or standard which is the lowest (most conservative) of the BC Contaminated Sites Regulation (B.C. Reg. 375/96) Schedule 3.2 Drinking Water Standards, the BC Source Drinking Water Guideline (BC ENV 2020b), and the Health Canada Drinking Water Quality Guideline (Health Canada 2022).
Bold font with grey shading means concentration greater than the DWQG NPM.

Table 4.5-1 includes a comparison to the DWQG NPM to identify if COPC concentrations in water at any of the CFMP sampling sites were higher than DWQGs or standards. As shown in Table 4.5-1, mean concentrations of all COPCs were below the DWQG NPMs.

Maximum concentration of total aluminum and manganese, considering all CFMP monitoring sites across the CFMP study area, were higher than the DWQG NPMs (Table 4.5-1).

Total manganese concentrations were higher than the DWQG NPM of 0.12 mg/L in two samples from Kuyakuz Lake (control) and five samples from impact sites: Tatelkuz Lake (n = 2), TC-10 (n = 1), CC-05 (n = 1), CC-40 (n = 1). All stream samples and one lake sample (KL-01) that exceeded the DWQG NPM were collected in May, whereas the other lake samples that exceeded the DWQG NPM were collected in February, August, and October.

The samples collected at CC-05 and CC-40 were collected as part of the spring freshet 5-in-30 sampling event in May 2023. When the average concentration across the 5 samples in 30 days is calculated for each site, the average concentration (0.061 mg/L at CC-05 and 0.063 mg/L at CC-40) is lower than the total manganese DWQG NPM (0.12 mg/L) at both sites.

There were no Mine related discharges or emissions to these creeks or to Tatelkuz Lake during the monitoring period. Therefore, the manganese concentrations measured in surface water samples are considered to be naturally occurring and are not associated with potential Mine effects.

Concentrations of total manganese exceeded the DWQG NPM at the KL-01 site during baseline studies between January 2016 and September 2022 in 11 of 23 samples (including two field duplicate samples; ERM 2023h). As this is a control site located in Kuyakuz Lake upstream of the Mine and the baseline dataset indicates total manganese concentrations were regularly higher than the DWQG NPM, the elevated total manganese concentrations are naturally occurring and not due to Mine activities.

Total aluminum concentrations were higher than the DWQG NPM of 2.9 mg/L in only one sample obtained from 661-05 in November 2023 (3.39 mg/L). The duplicate of that sample had a concentration of 2.71 mg/L. This is likely an anomaly as the average of all samples (n = 13) obtained at 661-05 during the monitoring period was 0.56 mg/L. There are currently no Mine related discharges or emissions to Creek 661 and, therefore, the aluminum concentrations measured in surface water samples are considered to be naturally occurring and are not associated with potential Mine effects.

4.5.3 SUMMARY OF COPC CONCENTRATIONS AT CONTROL SITES

The following water quality sampling sites are control sites as they are located either upstream of the Mine or in a watershed that is separate from the Mine (Table 3.4-1): KL-01, CC-03, 661-01, 705-05, 705-10, TC-01, and FC-01. Table 4.5-2 provides summary statistics for COPC concentrations at these control sites for the monitoring period.

Mean concentrations of all COPCs were below the DWQG NPMs. The maximum concentration of total manganese exceeded the DWQG NPM at two control sites, specifically at KL-01 and 661-01. As these are control sites, concentrations of total manganese higher than the DWQG NPM are naturally elevated and are not elevated due to the Mine.

TABLE 4.5-2 CONTROL SUBAREA SUMMARY STATISTICS OF COPC CONCENTRATIONS IN SURFACE WATER, 2023

COPC	n > DL	Summary Statistics of COPC Concentrations in Surface Water, Control Subarea[a] (n = 160; mg/L)						DWQG NPM [b] (mg/L)
		Minimum	Mean	Median	95% UCLM	95th Percentile	Maximum	
Aluminum	151	<0.0030	0.0621	0.0272	0.0808	0.219	1.03	2.9
Antimony	2	<0.00010	-	-	-	-	0.000130	0.006
Arsenic	160	<0.00030	0.000517	0.000500	0.000556	0.00089	0.00118	0.01
Beryllium	16	<0.000020	-	-	-	-	0.0000410	0.008
Cadmium	29	<0.00000600	-	-	-	-	0.0000486	0.005
Chromium	9	<0.00050	-	-	-	-	0.00158	0.05
Cobalt	9	<0.00010	-	-	-	-	0.000450	0.001
Copper	21	<0.00050	-	-	-	-	0.0018	1.5
Iron	142	<0.010	0.131	0.0855	0.155	0.423	1.01	6.5
Lead	9	<0.000050	-	-	-	-	0.000385	0.005
Lithium	0	<0.0010	-	-	-	-	<0.0010	0.008
Manganese	158	<0.00010	0.0299	0.00965	0.0440	0.0748	**0.942**	0.12
Mercury	12	<0.0000060	-	-	-	-	0.0000115	0.001
Molybdenum	160	0.000102	0.000561	0.000547	0.000602	0.00103	0.00121	0.088
Nickel	6	<0.00050	-	-	-	-	0.00108	0.08
Selenium	51	<0.000050	0.0000412	0.0000250	0.0000463	0.0000820	0.000370	0.01
Thallium	1	<0.000010	-	-	-	-	0.0000120	ng
Zinc	3	<0.0030	-	-	-	-	0.00600	3.0

Notes:
COPC = contaminant of potential concern; n = number of samples; DL = detection limit; 95% UCLM = 95% upper confidence limit of the mean; ng = no drinking water quality guideline or standard is available.
Data collected between October 1, 2022 and December 31, 2023 were included in the calculation of summary statistics.
Concentrations measured to be less than the DL were replaced with concentrations of 0.5 x DL for the purpose of calculating summary statistics.
"-" means that summary statistics, other than minimum and maximum, have not been calculated as more than 70% of samples were below DL.
The 95% UCLM was calculated using bootstrapping methods, which are free of parametric assumptions.
[a] Sites: 661-01, CC-03, 705-05, 705-10, TC-01, FC-01, and KL-01.
[b] DWQG NPM = drinking water quality guideline or standard numeric performance objective which is the lowest (most conservative) of the BC Contaminated Sites Regulation (B.C. Reg. 375/96) Schedule 3.2 Drinking Water Standards, the BC Source Drinking Water Guideline (BC ENV 2020b), and the Health Canada Drinking Water Quality Guideline (Health Canada 2022).
Bold font and grey shading denote mean concentrations greater than the DWQG NPM.

4.5.4 COMPARISON OF COPC CONCENTRATION AT POTENTIAL IMPACT SITES TO DWQG NPMS AND BASELINE WQ NPMS

The following sites are potential impact sites as they are located downstream of the Mine (Table 3.4-1): DC-05, DC-10, DC-15, DC-20, 661-03, 661-04, 661-05, 661-10, 661-20, TL-01, CC-05, CC-10, CC-15, CC-20, CC-30, CC-40, TC-05, TC-10- and TC-15. Table 4.5-3 provides summary statistics for COPC concentrations for these impact sites for the monitoring period, with a comparison to the DWQG NPM and the Baseline WQ NPM.

Mean concentrations of all COPCs at impact sites were lower than the DWQG NPM during the monitoring period. Similar to statistics calculated for control sites for the monitoring period (Section 4.5.3 and Table 4.5-2), the maximum concentration of total manganese (0.253 mg/L) was higher than the DWQG NPM (0.12 mg/L). Total manganese exceeded the DWQG NPM in Tatelkuz Lake (n = 2), Turtle Creek (TC-10, n = 1), and Chedakuz Creek (CC-05 and CC-40, n = 2). Total aluminum was higher than the DWQG NPM of 2.9 mg/L in one sample from 661-05 (3.39 mg/L in November 2023), which was approximately 30 times higher than total aluminum concentrations in all other water samples collected from impact sites (95% UCLM = 0.132 mg/L) but is not considered an outlier as a duplicate sample had a similarly high aluminum concentration and RPD results did not indicate sample contamination.

To answer the question of whether water quality had changed during the monitoring period compared to baseline water quality, the mean COPC concentration across impact sites from the monitoring period was compared to the Baseline WQ NPM. The Baseline WQ NPM was derived from baseline surface water quality collected between 2016 and September 2022, as described in the HHTAM report (ERM 2023f).

The mean concentration of iron (0.238 mg/L) was higher than the Baseline WQ NPM (0.22 mg/L; Table 4.5-3). The exceedance factor between the monitoring period mean concentration and the Baseline WQ NPM for iron was small (1.08 times higher than Baseline WQ NPM). Inspection of time series graphs of the monthly mean concentrations for iron (Appendix E.4) suggested that the potential change in concentrations relative to baseline was likely driven by sporadic or single high data points that can likely be considered outliers (e.g., duplicate sample collected at 661-05 in late 2023). The median concentration (Table 4.5-3), which is a non-parametric statistic that is not as affected by outliers as parametric statistics such as mean concentration, of iron were below the Baseline WQ NPMs. As there was no discharge from the Mine to surface water during the monitoring period, the elevated concentration of iron is likely naturally occurring. Further, if increases in COPC concentrations were due to Construction activities at the mine site, impact sites closer to the mine site would be expected to experience higher COPC concentrations than downstream impact sites. However, this was not generally observed (Appendix E.4).

As required by the CFMP, to test whether the increase in iron concentration compared to baseline were significant, a BACI analysis was performed (see Section 4.5.6 for Statistical Analysis results).

Mean concentrations of total molybdenum, which had exceeded the Baseline WQ NPM in the period from October to December 2022 (ERM 2023d) , were not observed to be greater than the Baseline WQ NPM during the current monitoring period. The previous exceedance was likely an artifact of the shorter monitoring period and missing samples from Tatelkuz Lake from the last quarter of 2022, as the lake generally has lower molybdenum concentrations than streams in this area.

TABLE 4.5-3 SUMMARY STATISTICS OF SURFACE WATER QUALITY MONITORING RESULTS AT IMPACT SITES, 2023

COPC	n > DL	Summary Statistics of COPC Concentrations in Surface Water, Impact Sites [a] (n = 378; mg/L)						Baseline WQ NPM (mg/L)	DWQG NPM [b] (mg/L)
		Minimum	Mean	Median	95% UCLM	95th Percentile	Maximum		
Aluminum	375	<0.0030	0.1053	0.0300	0.132	0.449	**3.39**	0.11	2.9
Antimony	14	<0.00010	-	-	-	-	0.000200	0.000062	0.006
Arsenic	378	0.000280	0.000740	0.000675	0.000770	0.00126	0.00296	0.00081	0.01
Beryllium	36	<0.000020	-	-	-	-	0.0001220	0.000036	0.008
Cadmium	119	<0.0000060	0.00000583	0.00000300	0.00000640	0.0000183	0.0000424	0.000006	0.005
Chromium	53	<0.00050	-	-	-	-	0.00287	0.00038	0.05
Cobalt	50	<0.00010	-	-	-	-	0.000880	0.000072	0.001
Copper	84	<0.00050	-	-	-	-	0.0503	0.00063	1.5
Iron	378	0.0100	***0.238***	0.181	0.265	0.551	2.68	0.22	6.5
Lead	73	<0.000050	-	-	-	-	0.00408	0.000050	0.005
Lithium	2	<0.0010	-	-	-	-	0.00150	0.00062	0.008
Manganese	378	0.00110	0.0233	0.0173	0.0261	0.0602	**0.253**	0.026	0.12
Mercury	38	<0.0000060	-	-	-	-	0.0000157	0.0000044	0.001
Molybdenum	378	0.000148	0.000713	0.000715	0.000738	0.00103	0.00272	0.00074	0.088
Nickel	33	<0.00050	-	-	-	-	0.00450	0.00038	0.08
Selenium	262	<0.000050	0.0000559	0.0000600	0.0000584	0.0000932	0.000148	0.000068	0.01
Thallium	2	<0.000010	-	-	-	-	0.0000420	0.0000064	ng
Zinc	54	<0.0030	-	-	-	-	0.0630	0.0023	3.0

Notes:
COPC = contaminant of potential concern; n = number of samples; DL = detection limit; 95% UCLM = 95% upper confidence limit of the mean; WQ = water quality; NPM = numeric performance objective; ng = no drinking water quality guideline or standard is available.
Data collected between October 1, 2022 and December 31, 2023 were included in the calculation of summary statistics.
Concentrations measured to be less than the DL were replaced with concentrations of 0.5 x DL for the purpose of calculating summary statistics.
"-" means that summary statistics, other than minimum and maximum, have not been calculated as more than 70% of samples were below DL.
The 95% UCLM was calculated using bootstrapping methods, which are free of parametric assumptions.
[a] Sites: CC-05, DC-05, DC-10, DC-15, DC-20, 661-03, 661-04, 661-05, 661-10, 661-20, CC-10, CC-15, CC-20, CC-30, CC-40, TC-05, TC-10, and TC-15.
[b] DWQG NPM = drinking water quality guideline numeric performance objective which is the lowest (most conservative) of the BC Contaminated Sites Regulation (B.C. Reg. 375/96) Schedule 3.2 Drinking Water Standards, the BC Source Drinking Water Guideline (BC ENV 2020b), and the Health Canada Drinking Water Quality Guideline (Health Canada 2022).
Bold italicized font denotes a mean concentration greater than the Baseline WQ NPM.
Bold font and grey shading denotes concentrations greater than the DWQG NPM.

4.5.5 COMPARISON OF COPC CONCENTRATIONS AT SITES INCLUDED IN THE SURFACE WATER QUALITY MODEL TO PREDICTED WQ NPMS

The following sites were included in the SWQ model (Lorax 2022) as assessment nodes and are impact sites for monitoring water quality: DC-05, DC-10, DC-15, DC-20, 661-05, 661-10, 661-20, CC-10, CC-15, CC-20, CC-30, and CC-40. As the SWQ model used different assessment node names than the CFMP program, Table 4.5-4 provides the names of assessment nodes and corresponding CFMP monitoring sites.

TABLE 4.5-4 WATER QUALITY MODEL ASSESSMENT NODES AND CFMP SAMPLING SITES

Watershed	Water Quality Model Assessment Node (Lorax 2022)	CFMP Monitoring Site Name
Davidson Creek	WQ28	DC-05
	WQ27	DC-10
	WQ26	DC-15
	WQ7	DC-20
Creek 661	WQ3	661-05
	WQ5	661-10
	WQCk661	661-20
Chedakuz Creek	WQ8	CC-10
	WQ9	CC-15
	WQ13	CC-20
	Chedakuz Midway	CC-30
	Chedakuz Outlet	CC-40

Data collected from these SWQ model node sites during the monitoring period was used to confirm that measured concentrations of COPCs in water were within the range predicted by the SWQ model v.13e (Lorax 2022) and that the predicted surface water concentrations used in the Project Case HHRA (Entia 2022b) represented a conservative exposure scenario. Table 4.5-5 provides summary statistics for water quality during the monitoring period at the impact sites that were included as assessment nodes in the SWQ model and compares the mean to the Predicted WQ NPM. The Predicted WQ NPM was derived from outputs of the SWQ model v.13e (Lorax 2022), as described in the HHTAM report (ERM 2023f).

For all COPCs except iron, the mean concentration was lower than the Predicted WQ NPM. For iron, the mean concentration (0.253 mg/L) was marginally (1.33 times) greater than the Predicted WQ NPM concentration (Table 4.5-5). It is also interesting to note that the Baseline NPM (0.22 mg/L, see Section 4.5.4 in Table 4.5-3) for iron is higher than the Predicted NPM for iron (0.19 mg/L in Table 4.5-5), which suggests that the SWQ model may have underestimated the baseline iron concentrations (since predicted concentrations included baseline plus Project contributions). Regardless, the mean iron concentration in surface water of 0.253 mg/L is well below levels of concern for human health, as mean concentrations of iron were 25 times lower than the DWQG NPM of 6.5 mg/L (Table 4.5-5).

TABLE 4.5-5 SUMMARY STATISTICS OF COPC CONCENTRATIONS IN SURFACE WATER FOR SWQ MODEL NODE SITES, 2023

COPC	n > DL	Summary Statistics of COPC Concentrations in Surface Water for SWQ Model Node Sites[a] (n = 244; mg/L)						Predicted WQ NPM (mg/L)	DWQG NPM [b] (mg/L)
		Minimum	Mean	Median	95% UCLM	95th Percentile	Maximum		
Aluminum	244	0.00790	0.123	0.0359	0.163	0.499	**3.39**	0.15	2.9
Antimony	9	<0.000105	-	-	-	-	0.000200	0.0025	0.006
Arsenic	244	0.000420	0.000792	0.000695	0.000829	0.00130	0.00296	0.0012	0.01
Beryllium	28	<0.000020	-	-	-	-	0.0001220	0.000075	0.008
Cadmium	78	<0.0000060	0.00000559	0.00000300	0.00000627	0.0000185	0.0000424	0.000033	0.005
Chromium	39	<0.00050	-	-	-	-	0.00287	0.00046	0.05
Cobalt	38	<0.00010	-	-	-	-	0.000880	0.00030	0.001
Copper	55	<0.00050	-	-	-	-	0.0503	0.00053	1.5
Iron	244	0.0190	***0.253***	0.201	0.290	0.548	2.68	0.19	6.5
Lead	55	<0.000050	-	-	-	-	0.00160	0.00014	0.005
Lithium	2	<0.0010	-	-	-	-	0.00150	0.011	0.008
Manganese	244	<0.00192	0.0207	0.0175	0.0228	0.0504	**0.138**	0.064	0.12
Mercury	23	<0.0000060	-	-	-	-	0.0000157	0.0000080	0.001
Molybdenum	244	0.000178	0.000775	0.000777	0.000806	0.00103	0.00272	0.0013	0.088
Nickel	23	<0.00050	-	-	-	-	0.00450	0.00056	0.08
Selenium	189	<0.000050	0.0000590	0.0000620	0.0000620	0.0000936	0.000142	0.00018	0.01
Thallium	2	<0.000010	-	-	-	-	0.0000420	0.000037	ng
Zinc	17	<0.0030	-	-	-	-	0.0103	0.0051	3.0

Notes:
COPC = contaminant of potential concern; n = number of samples; DL = detection limit; 95% UCLM = 95% upper confidence limit of the mean; SWQ = Surface Water Quality; WQ = water quality; NPM = numeric performance objective; ng = no drinking water quality guideline or standard is available.
Data collected between October 1, 2022 and December 31, 2023 were included in the calculation of summary statistics.
Concentrations measured to be less than the DL were replaced with concentrations of 0.5 x DL for the purpose of calculating summary statistics.
"-" means that summary statistics, other than minimum and maximum, have not been calculated as more than 70% of samples were below DL.
The 95% UCLM was calculated using bootstrapping methods, which are free of parametric assumptions.
Outliers exceeding threshold based on professional judgement were removed while values exceeding the 99th percentile were flagged but retained in the dataset.
[a] Sites: DC-05, DC-10, DC-15, DC-20, 661-05, 661-10, 661-20, CC-15, CC-20, CC-30, and CC-40.
[b] DWQG NPM = drinking water quality guideline numeric performance objective which is the lowest (most conservative) of the BC Contaminated Sites Regulation (B.C. Reg. 375/96) Schedule 3.2 Drinking Water Standards, the BC Source Drinking Water Guideline (BC ENV 2020b), and the Health Canada Drinking Water Quality Guideline (Health Canada 2022).
Bold italicized font denotes a mean concentration greater than the Predicted WQ NPM.
Bold font and grey highlight denotes concentrations greater than the DWQG NPM.

These comparisons indicate that the concentrations of most COPCs in surface water were within the range predicted by the SWQ model and that concentrations used to represent surface water EPCs in the HHRA were reasonably conservative. While the marginal exceedance of the Predicted WQ NPMs for the mean concentration of iron indicates that water quality in 2023 may have changed in a manner not predicted by the SWQ model, this is not likely to be a Mine effect. The apparent increase in iron concentration relative to predicted concentrations is likely driven by single high concentrations of iron in the 2023 monitoring data (see Section 4.5.4 and Appendix E.4) and a marginal underprediction of iron concentrations in the SWQ model, as there were no discharges to surface water from the Mine in 2023.

As required by the CFMP, to test whether the increase in iron concentration compared to Predicted WQ NPMs was significant, a BACI analysis was performed (see Section 4.5.6 for Statistical Analysis results).

4.5.6 STATISTICAL ANALYSIS

4.5.6.1 METHODOLOGY

To further assess potential Mine-related effects on concentrations of selected COPCs in surface water, a BACI analysis was completed. Analysis was performed using R statistical computing package (R Development Core Team 2022). Details of methodology and the results are provided in Appendix C.3.

As required under the CFMP, BACI analysis was carried out for total iron in surface water as mean iron concentrations were higher than the Baseline and Predicted NPMs. Highly censored parameters (i.e., greater than 70% of data were below the DL) were considered unreliable and were not subjected to BACI analysis; iron was detectable in 96% of all samples (see Appendix E.3), so censoring was not an issue. The percent detection for all parameters across the entire study area during baseline and monitoring is illustrated on Figure 1 in Appendix E.3.

A subsequent query for censored data was carried out for iron for each site included in the BACI analysis (Appendix C.3). Data were excluded from the analysis if greater than 70% of observations from a site were censored or if greater than 50% of observations in a site's sampling year were censored. A table with the number of observations removed from each site per year is provided in Appendix C.3.

Duplicates were averaged and field and travel blanks were removed prior to analysis. Data transformations (e.g., log transformation) were completed if determined to be appropriate (e.g., to achieve random distribution of residuals). Outliers were identified but not removed prior to BACI.

The standard approach to BACI used log-10 transformed data to assess potential impacts to water quality, where the mean of baseline data collected prior to the start of Early Works Construction ("before"; up to the end of September 2022) is compared to the mean of monitoring data after the start of Early Works Construction ("after"; October 2022 onward) at both control and impact sites. Water quality data were grouped into control sites and potential impact sites (as per Section 3.4). The main statistic of interest in a BACI analysis is an ANOVA interaction term (Before-After × Control-Impact, or BA × CI), which would be significant when a change occurs at the impact site but not at the control site (Smokorowski and Randall 2016).

4.5.6.2 RESULTS

Box plots illustrating parameter concentrations in baseline and during monitoring at control and impact sites are located in Appendix E.3.

Appendix C.3 shows the results of the BACI linear model for total iron. The threshold for significance was assumed to be $p = 0.001$. The results indicate that the change in total iron concentration at potential impact sites from before start of Early Works Construction to after the start was not significant (*adjusted* $p = 0.49$) from the change at control sites.

4.6 FISH TISSUE MONITORING RESULTS

4.6.1 COMPARISON OF COPC CONCENTRATIONS IN FISH TISSUES BETWEEN 2023 AND 2021/2022 DATA

In 2021 and 2022, some of the dissected fish tissues and whole fish samples processed by Biologica Environmental Services were shipped to the analytical laboratory (ALS Laboratories, Burnaby, BC) wrapped in aluminum foil, which could have leached and inadvertently resulted in elevated tissue metal concentrations, especially aluminum. These data were used to form the baseline dataset for fish tissue metal concentrations and, therefore, any issues due to potential sample contamination would have affected the Baseline Fish Tissue NPMs.

Aluminum is the primary metal of concern for contamination of tissue metal samples wrapped in aluminum foil as, depending on the manufacturer, it makes up to 99% of the content of aluminum foil, although traces of other metals (e.g., iron, silicon, manganese, and zinc, with concentrations up to 0.1%) may also be present (for instance, see https://www.steeltd.com/product/8011-aluminum-foil.html). To address this uncertainty and determine whether aluminum, or other metal, concentrations were altered by the use of aluminum foil, a statistical comparison using muscle tissue COPC concentration from different years (2021, 2022, and 2023) was performed. The analysis focused on control sites only to exclude potential confounding effects of changes, if any, due to the Mine at impact sites in 2023. The hypotheses for consideration were:

Null Hypothesis, H_0:

> Aluminum concentrations in fish tissue collected in 2021 and 2022 were not affected by wrapping in aluminum foil prior to laboratory submission.

Alternate Hypothesis, H_A:

> Aluminum concentrations in fish tissue collected in 2021 and 2022 were altered by wrapping in aluminum foil prior to laboratory submission. If this alternate hypothesis is true, there should be a difference between 2021 and 2022 data versus 2023 data, but 2021 and 2022 data should be similar. Tissue concentrations of aluminum should also be higher in 2021 and 2022 than in 2023.

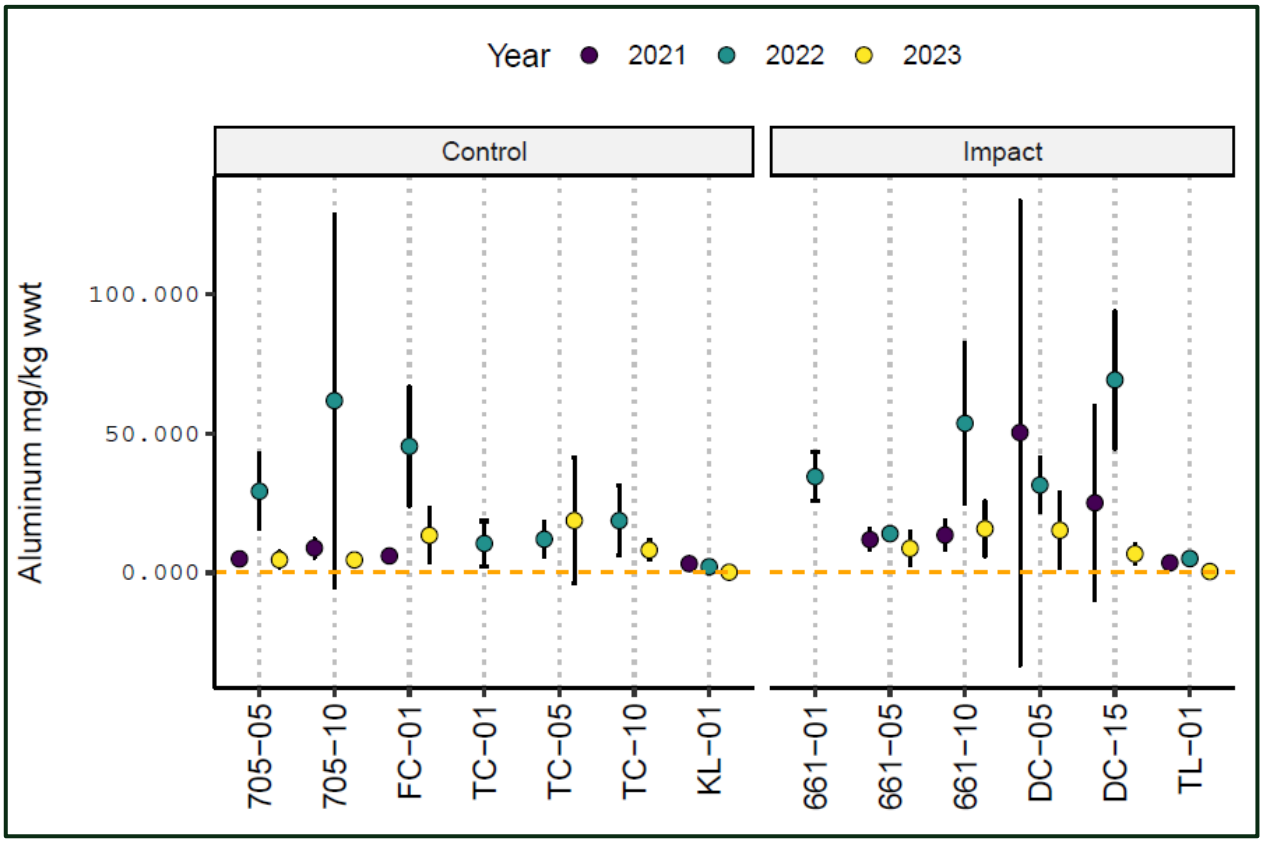
To reduce the number of comparisons, analytes had to have at least a 30% detection rate (no more than 70% non-detects) over three years (2021-2023) to be included in further investigation. This included aluminum, arsenic, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, selenium, thallium, and zinc. Fish tissue data from 2023 were compared to fish tissue data from 2021 and 2022 using a mixed-effects linear regression with site ID as a random effect. Significant differences were followed up with post-hoc tests to determine

which years were different. Significance was determined as false-discovery-rate (FDR) controlled p-value < 0.05 (Benjamini and Hochberg 1995). Most COPCs followed an approximately log-normal distribution in values, therefore a log10 transformation was applied prior to analysis.

The mixed-effects linear regression analysis showed that aluminum (and all analyzed COPCs except arsenic and mercury) had a significant difference among years at the control sites in the overall tests after *p*-value correction ($p < 0.05$). The significant differences in concentration among years were followed up with post-hoc tests to determine which years were different for aluminum in fish tissue.

Fish tissue metal concentrations of aluminum are shown on Figure 4.6-1, by site, with dots and whiskers representing the mean +/- standard deviation. Results of statistical analysis showed that aluminum concentrations in fish tissue were significantly different amongst years (corrected $p < 0.05$) across control sites. The effects ratio across control sites was approximately 2 times higher in 2021 than in 2023, while the effects ratio across control sites was approximately 4 times higher in 2022 than in 2023. However, aluminum was also significantly different ($p = 0.008$) between 2021 and 2022, the two years in which fish tissues were wrapped in aluminum foil.

FIGURE 4.6-1 ALUMINUM CONCENTRATIONS IN FISH TISSUE, 2021-2023



Visual examination of the fish tissue metal data for aluminum in Figure 4.6-1 on a site-by-site basis also does not identify consistent inter-annual trends, as sometimes aluminum is higher in 2021 and 2022 versus 2023 (e.g., 705-10), higher in 2023 (e.g., TC-05), or 2023 concentrations are between 2021 and 2022 concentrations (e.g., FC-01). Mean fish tissue aluminum concentrations do generally appear to be highest in 2022 at most sites where more than one year

of data are available, and mean concentrations generally appear similar between 2021 and 2023 at sites that were sampled in both years.

Although it is possible that inherent variability (i.e., within year variability between fish sampled at a given site) in fish tissue concentrations is obscuring potential effects of aluminum foil, the statistical analysis and visual examination of the data support the conclusion that wrapping, storing, and shipping fish tissues in aluminum foil did not lead to consistent or detectable differences in aluminum tissue concentrations collected at control sites between 2021 and 2022 or 2023. Rather, observed differences are likely due to inter-annual variability in tissue metal composition, and the null hypothesis (H_0) is the more likely conclusion (aluminum foil wrapping did not affect fish tissue concentrations of aluminum in a systematic way).

4.6.2 COMPARISON OF COPC CONCENTRATIONS TO CF GUIDELINE NPMS

Raw 2023 fish tissue quality data are located in Appendix A.4. Graphical representation of the 2023 data in comparison to 2021 and 2022 fish tissue data are provided in Appendix E.5.

Table 4.6-1 provides summary statistics for COPC concentrations in fish samples from across the CFMP study area, including juvenile RB from Creek 661 (661-04 and 661-05, n = 11; 661-10, n = 8), Davidson Creek (DC-05, n = 8; DC-15, n = 8), Creek 705 (705-05, n = 8; 705-10, n = 8), Turtle Creek (TC-05, n = 8; TC-10, n = 8), and Fawnie Creek (FC-01, n = 8), and adult RB, MW, and KO from Tatelkuz Lake (TL-01, n = 8 for each species) and RB and MW from Kyakuz Lake (KL-01, n = 7 for RB and n = 10 for MW). Results are discussed in detail in the *AEMP Interpretive Report* (ERM 2024).

Table 4.6-1 includes a comparison of the study area-wide mean fish tissue concentration to the CF Guideline NPMs for fish. As shown in Table 4.6-1, mean concentrations of all COPCs in fish whole body and muscle were below the CF Guideline NPMs for fish.

4.6.3 COMPARISON TO BASELINE FISH TISSUE NPMS

The Baseline CF NPM for fish tissues was calculated based on 2021 and 2022 fish tissue concentrations from RB, MW, and KO at impact sites at Davidson Creek (DC-05, DC-15), Creek 661 (661-05, 661-10), and Tatelkuz Lake (TL-01) as described in the HHTAM report (ERM 2023f). Therefore, only 2023 fish tissue data from the same sites (n = 59) were used to calculate and compare the mean concentration to the Baseline Fish Tissue NPM.

The comparison showed that mean concentrations of COPCs in 2023 did not exceed the Baseline Fish Tissue NPM (Table 4.6-2).

4.6.4 COMPARISON TO PREDICTED FISH TISSUE NPMS

The Predicted Fish Tissue NPMs were calculated based on 2021 and 2022 fish tissue concentrations from RB, MW, and KO at Impact sites at Davidson Creek (DC-05, DC-15), Creek 661 (661-05, 661-10), and Tatelkuz Lake (TL-01), multiplied by the incremental change in fish tissue concentration between Baseline Case and Project Case from the *2022 HHRA Update* report, as described in the HHTAM (ERM 2023f). Only 2023 fish tissue data from the same sites (n = 59) were used to calculate summary statistics and compare the mean to the Predicted Fish Tissue NPM (Table 4.6-2). None of the mean concentrations of the COPCs exceeded the Predicted Fish Tissue NPMs.

TABLE 4.6-1 STUDY AREA-WIDE SUMMARY STATISTICS FOR COPC CONCENTRATIONS IN FISH TISSUE AND COMPARISON TO CF GUIDELINE NPMS FOR FISH TISSUE, 2023

COPC	n > DL	Summary Statistics of COPC Concentrations in Fish Tissues, Study Area-Wide (n = 116; mg/kg ww)								CF Guideline NPM for Fish (mg/kg ww)
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum	
Aluminum	85	<0.40	6.98	12.9	1.19	9.32	3.31	22.8	**99.7**	79
Antimony	23	<0.0020	-	-	-	-	-	-	0.00460	0.050
Arsenic	116	0.00660	0.0496	0.0326	0.00303	0.0556	0.0408	0.100	**0.216**	0.15
Beryllium	2	<0.002	-	-	-	-	-	-	0.0027	0.55
Cadmium	75	<0.0010	0.0184	0.0263	0.00245	0.0232	0.00910	0.0677	0.193	0.21
Chromium	82	<0.010	0.0363	0.0446	0.00414	0.0444	0.0220	0.110	0.273	0.35
Cobalt	83	<0.0040	0.0168	0.0149	0.00138	0.0195	0.0146	0.0430	**0.0641**	0.064
Copper	116	0.173	0.743	0.380	0.0352	0.812	0.805	1.27	1.89	30
Iron	116	2.13	21.0	21.8	2.02	25.0	18.1	62.5	127	132
Lead	44	<0.0040	0.00834	0.0150	0.00139	0.0111	0.00200	0.0403	**0.116**	0.11
Lithium	0	<0.1	-	-	-	-	-	-	<0.1	0.11
Manganese	116	0.0590	3.98	7.44	0.690	5.34	2.15	**14.0**	**51.9**	12
Mercury	116	0.00720	0.0764	0.0474	0.00440	0.0851	0.0709	**0.167**	**0.235**	0.15
Molybdenum	84	<0.0040	0.0157	0.0130	0.00121	0.0181	0.0149	0.0372	0.0662	0.082
Nickel	10	<0.040	-	-	-	-	-	-	0.107	0.11
Selenium	116	0.0410	0.322	0.206	0.0192	0.359	0.323	0.690	0.873	1.8
Thallium	101	<0.00040	0.00327	0.00252	0.000234	0.00373	0.00284	0.00766	**0.0124**	0.011
Zinc	116	2.99	20.5	13.4	1.25	22.9	23.2	39.5	**61.6**	60

Notes:
COPC = contaminant of potential concern; n = number of samples; DL = detection limit; UCLM = upper confidence limit of the mean; CF = country foods; NPM = Numeric Performance Metric; ww =wet weight.
Concentrations measured to be less than the DL were replaced with concentrations of 0.5 x DL for the purpose of calculating summary statistics.
"-" means that summary statistics, other than minimum and maximum, have not been calculated as more than 70% of samples were < DL.
Bold font and grey shading denote concentrations greater than the CF Guideline NPM for fish tissue.

TABLE 4.6-2 IMPACT SITES SUMMARY STATISTICS FOR COPCS CONCENTRATIONS IN FISH TISSUE AND COMPARISON TO BASELINE AND PREDICTED NPMS FOR FISH TISSUE, 2023

COPC	n > DL	Summary Statistics of COPC Concentrations in Fish Tissues, Impact Sites[a] (n = 59; mg/kg ww)								Baseline NPM for Fish (mg/kg ww)	Predicted NPM for Fish (mg/kg ww)
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum		
Aluminum	45	<0.40	6.94	11.4	1.48	9.84	2.59	24.1	60.4	79	59
Antimony	15	<0.0020	-	-	-	-	-	-	0.00460	0.0058	0.3900
Arsenic	59	0.00660	0.0472	0.0228	0.00296	0.0530	0.0411	0.089	0.108	0.15	0.18
Beryllium	1	<0.002	-	-	-	-	-	-	0.0026	0.0038	0.0035
Cadmium	35	<0.0010	0.0200	0.0217	0.00282	0.0255	0.01760	0.0570	0.0930	0.074	0.220
Chromium	51	<0.010	0.0490	0.0540	0.00702	0.0628	0.0380	0.146	0.273	0.25	0.24
Cobalt	43	<0.0040	0.0152	0.0135	0.00176	0.0187	0.0129	0.0399	0.0473	0.076	0.420
Copper	59	0.173	0.689	0.344	0.0447	0.777	0.758	1.17	1.39	2.0	2.2
Iron	59	2.13	17.5	17.6	2.29	22.0	14.4	44.0	103	132	134
Lead	30	<0.0040	0.0119	0.0191	0.00248	0.01681	0.00500	0.0492	0.116	0.048	0.190
Lithium	0	<0.1	-	-	-	-	-	-	<0.1	0.12	2.40
Manganese	59	0.0590	2.33	2.31	0.301	2.92	2.02	6.42	9.09	12	167
Mercury	59	0.03880	0.0853	0.0384	0.00500	0.0951	0.0802	0.150	0.232	0.15	0.25
Molybdenum	44	<0.0040	0.014	0.0119	0.00154	0.0170	0.0119	0.0367	0.0501	0.080	0.160
Nickel	3	<0.04	-	-	-	-	-	-	0.107	0.15	0.23
Selenium	59	0.116	0.37	0.215	0.0280	0.422	0.344	0.730	0.873	1.1	1.2
Thallium	59	0.00054	0.00	0.00230	0.000300	0.00395	0.00361	0.00676	0.0124	0.011	0.028
Zinc	59	2.99	19.08	12.5	1.63	22.3	22.7	36.6	40.2	60	85

Notes:
COPC = contaminant of potential concern; n = number of samples; DL = detection Limit; UCLM = upper confidence limit of the mean; CF = country foods; NPM = Numeric Performance Metric; ww = wet weight.
Concentrations measured to be < DL were replaced with concentrations of 0.5 x DL for the purpose of calculating summary statistics.
"-" means that summary statistics, other than minimum and maximum, have not been calculated as more than 70% of samples were < DL.
[a] Impact sites are in Davidson Creek (DC-05, DC-15), Creek 661 (661-05, 661-10), and Tatelkuz Lake (TL-01).

4.6.5 STATISTICAL ANALYSIS

Table 4.6-2 and 4.6-3 present the summary statistics for fish tissue samples collected in 2023 for impact and control sites, respectively.

As per the CFMP, a BACI analysis is only required when an increase in fish tissue COPC concentrations above baseline and predicted concentrations is detected. A BACI analysis was not performed because the mean 2023 fish tissue COPC concentrations were below the CF Guideline NPM for Fish, the Fish Tissue Baseline NPM, and the Predicted Fish Tissue NPM (Sections 4.6.1, 4.6.2, and 4.6.3).

However, data were interrogated for any potential trends between subareas. This analysis was completed with the intent to incorporate 2023 sampling results for fish into the 2021-2022 baseline dataset. A comparison of concentrations from impact and control site fish tissues showed that there were no significant differences for any of the COPCs in fish tissues in 2023 between these subareas (Table 4.6-4). Because the observed differences in COPC concentrations between years are likely due to inter-annual variability in tissue metal composition (Section 4.6.1 and Appendix E.5), the 2023 data are not above the Baseline Fish Tissue NPMs (Section 4.6.3), and the Mine did not discharge to surface water in 2023, fish tissue data from 2023 will be incorporated into the 2021-2022 datasets. Further discussion is provided in the 2023 AEMP Interpretive Report (ERM 2024).

4.7 SMALL MAMMAL TISSUE RESULTS

4.7.1 SUMMARY STATISTICS

As 2023 was the first year of small mammal (rodent) tissue sampling, tissue quality data reported in this section are considered baseline data to be used for future monitoring. Because there are no triggers in the adaptive management plan of the CFMP for human health based on rodent tissues, comparisons to NPMs are not performed. It is anticipated that Early Works construction activities had limited effect on tissue quality; however, data from near-field (impact) and control subareas were compared to investigate whether there are differences between these areas due to natural conditions identifiable across COPCs and species.

Twenty three (23) animals were trapped at near-field sites (CFMP-SV-004, -006, -014, -019), and 34 animals were trapped at control sites (CFMP-SV-024, -027, -032, -040) in September 2023. The number of animals for each species at each site are listed in Table 4.7-1.

Raw tissue metal data are presented in Appendix A.5. Summary statistics of concentrations of COPCs in liver and in carcass (rest of body, minus liver) for both species of rodents combined across the study area and in near-field and control subareas are presented in Tables 4.7-2 to 4.7-7.

TABLE 4.6-3 CONTROL SITES SUMMARY STATISTICS FOR COPC CONCENTRATIONS IN FISH TISSUE, 2023

COPC	n > DL	Summary Statistics of Parameter Concentrations in Fish Tissues, Control Sites a (n = 57; mg/kg ww)							
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Aluminum	40	<0.40	7.02	14.4	1.90	10.75	4.10	17.3	99.7
Antimony	8	<0.0020	-	-	-	-	-	-	0.00410
Arsenic	57	0.00900	0.0522	0.0404	0.00536	0.0627	0.0401	0.120	0.216
Beryllium	1	<0.0020	-	-	-	-	-	-	0.00270
Cadmium	40	<0.0010	0.0168	0.0305	0.00405	0.0247	0.00770	0.0684	0.193
Chromium	31	<0.010	0.0231	0.0270	0.00357	0.0301	0.0190	0.053	0.156
Cobalt	40	<0.0040	0.0184	0.0161	0.00213	0.0226	0.0163	0.0530	0.0641
Copper	57	0.186	0.798	0.409	0.0542	0.904	0.859	1.38	1.89
Iron	57	2.13	24.8	25.0	3.31	31.2	20.1	75.8	127
Lead	14	<0.0040	-	-	-	-	-	-	0.051
Lithium	0	<0.10	-	-	-	-	-	-	<0.10
Manganese	57	0.0840	5.69	10.11	1.339	8.31	2.58	22.9	51.9
Mercury	57	0.00720	0.0672	0.0541	0.00716	0.0813	0.0557	0.167	0.235
Molybdenum	40	<0.0040	0.0176	0.0139	0.00184	0.0212	0.0164	0.0371	0.0662
Nickel	7	<0.040	-	-	-	-	-	-	0.100
Selenium	57	0.0410	0.274	0.187	0.0248	0.323	0.197	0.569	0.607
Thallium	42	<0.00040	0.00317	0.00275	0.000365	0.00388	0.00253	0.00779	0.0106
Zinc	57	3.34	22.0	14.2	1.89	25.7	23.7	45.6	61.6

Notes:
COPC = contaminant of potential concern; n = number of samples; DL = detection limit; UCLM = upper confidence limit of the mean; CF = country foods; NPM = Numeric Performance Metric; ww = wet weight.
"-" means that summary statistics, other than minimum and maximum, have not been calculated as more than 70% of samples were below DL.
[a] Control sites are in Fawney Creek (FC-01), Turtle Creek (TC-01, TC-05, and TC-10), Creek 705 (705-05 and 705-10), and Kuyakuz Lake (KL-01).

TABLE 4.6-4 RAW AND ADJUSTED P-VALUES FOR LINEAR REGRESSION ANALYSIS OF COPC CONCENTRATIONS IN FISH TISSUES BETWEEN IMPACT AND CONTROL SITES, 2023

Contaminant of Potential Concern	Raw p-value	Adjusted p-value
Aluminum	0.89	0.97
Arsenic	0.93	0.97
Cadmium	0.66	0.97
Chromium	0.09	0.66
Cobalt	0.96	0.97
Copper	0.79	0.97
Iron	0.73	0.97
Lead	0.08	0.66
Manganese	0.76	0.97
Mercury	0.32	0.97
Molybdenum	0.89	0.97
Selenium	0.32	0.97
Thallium	0.55	0.97
Zinc	0.97	0.97

TABLE 4.7-1 SUMMARY OF SMALL MAMMALS TRAPPING: NUMBER OF SAMPLES AND SPECIES, SEPTEMBER 2023

Area (distance from mine site boundary)	Site ID	Number of Animals Trapped			
		Southern Red-backed Vole	Deer Mouse	Total per Site	Total per Area
Near-field (impact) sites (< 1 km from mine site)	004	2	0	2	23
	006	6	6	12	
	014	3	0	3	
	019	0	6	6	
Control sites (> 10 km from mine site)	024	0	8	8	34
	027	2	8	10	
	032	10	0	10	
	040	2	4	6	
Total per species		**25**	**32**		

TABLE 4.7-2 STUDY AREA-WIDE SUMMARY STATISTICS OF CONCENTRATIONS OF COPCS IN LIVER OF SMALL MAMMALS, 2023

COPC	n > DL	Summary Statistics of COPC Concentrations in Small Mammal Liver, Study Area-wide (n = 57; mg/kg ww)							
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Physical Tests									
Moisture (%)	57	64.6	69.2	1.86	0.246	69.6	69.2	72.2	73.7
Metals									
Aluminum	23	0.430	2.75	8.10	1.07	4.86	0.500	11.2	50.9
Antimony	24	<0.0020	0.00294	0.00317	0.000420	0.00376	0.00100	0.00834	0.0192
Arsenic	47	<0.0040	0.0493	0.216	0.0286	0.105	0.00960	0.0562	1.58
Beryllium	0	<0.0020	-	-	-	-	-	-	<0.0020
Cadmium	57	0.00800	0.151	0.439	0.0582	0.265	0.0394	0.551	2.70
Chromium	18	<0.010	0.0597	0.0957	0.0127	0.0846	0.0200	0.254	0.458
Cobalt	57	0.0154	0.0494	0.0353	0.00468	0.0586	0.0415	0.130	0.208
Copper	57	3.48	6.15	1.57	0.207	6.55	5.76	9.19	11.6
Iron	57	62.5	168	73.7	9.76	187	143	312	367
Lead	10	<0.00400	-	-	-	-	-	-	0.0490
Lithium	0	<0.10	-	-	-	-	-	-	<0.10
Manganese	57	2.02	3.99	2.47	0.328	4.64	3.35	7.57	18.4
Mercury	57	0.00180	0.0814	0.104	0.0137	0.108	0.0182	0.226	0.435
Molybdenum	57	0.266	1.35	0.381	0.0505	1.45	1.41	1.91	1.99
Nickel	10	<0.040	-	-	-	-	-	-	1.21
Selenium	57	0.316	0.989	0.462	0.0612	1.109	0.947	1.68	2.49

COPC	n > DL	Summary Statistics of COPC Concentrations in Small Mammal Liver, Study Area-wide (n = 57; mg/kg ww)							
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Thallium	48	<0.00040	0.00317	0.00290	0.000384	0.00392	0.00244	0.00885	0.0124
Zinc	57	19.2	25.8	4.08	0.541	26.9	25.8	32.4	39.6

Notes:
COPC = contaminant of potential concern; n = number of samples; DL = detection limit; UCLM = upper confidence limit of the mean; ww = wet weight.
"-" means that summary statistics, other than minimum and maximum, have not been calculated as more than 70% of samples were < DL.

TABLE 4.7-3 NEAR-FIELD SUBAREA SUMMARY STATISTICS OF CONCENTRATIONS OF COPCS IN LIVER OF SMALL MAMMALS, 2023

COPC	n > DL	Summary Statistics of COPC Concentrations in Small Mammal Liver, Near-field Subarea (n = 22; mg/kg ww)							
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Physical Tests									
Moisture (%)	22	66.0	68.8	1.71	0.365	69.5	68.7	72.0	72.8
Metals									
Aluminum	7	0.490	2.31	6.31	1.34	4.95	0.500	8.16	29.5
Antimony	10	<0.0020	0.00277	0.00214	0.000456	0.00366	0.00200	0.00634	0.0089
Arsenic	19	<0.0040	0.0920	0.333	0.0711	0.231	0.0137	0.124	1.58
Beryllium	0	<0.0020	-	-	-	-	-	-	<0.0020
Cadmium	22	0.00800	0.319	0.681	0.1452	0.604	0.0442	1.74	2.70
Chromium	9	<0.010	0.0715	0.1090	0.0232	0.1170	0.0200	0.375	0.385
Cobalt	22	0.0258	0.0396	0.00839	0.00179	0.0431	0.0395	0.0535	0.0585
Copper	22	5.02	6.07	0.89	0.191	6.45	5.83	7.19	8.3
Iron	22	62.5	151	71.1	15.2	180	136	296	336

COPC	n > DL	Summary Statistics of COPC Concentrations in Small Mammal Liver, Near-field Subarea (n = 22; mg/kg ww)							
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Lead	4	<0.00400	-	-	-	-	-	-	0.0490
Lithium	0	<0.10	-	-	-	-	-	-	<0.10
Manganese	22	2.03	4.38	3.42	0.730	5.81	3.43	7.59	18.4
Mercury	22	0.00550	0.0689	0.072	0.0154	0.099	0.0223	0.185	0.194
Molybdenum	22	0.266	1.45	0.396	0.0844	1.62	1.51	1.94	1.98
Nickel	2	<0.040	-	-	-	-	-	-	0.182
Selenium	22	0.430	0.912	0.396	0.0845	1.078	0.863	1.46	1.64
Thallium	21	<0.00040	0.00448	0.00355	0.000758	0.00597	0.00372	0.00991	0.0124
Zinc	22	19.7	25.6	3.06	0.653	26.9	25.7	30.5	32.8

Notes:
COPC = contaminant of potential concern n = number of samples; DL = detection limit; UCLM = upper confidence limit of the mean; ww = wet weight.
"-" means that summary statistics, other than minimum and maximum, have not been calculated as more than 70% of samples were < DL.

TABLE 4.7-4 CONTROL SUBAREA SUMMARY STATISTICS OF CONCENTRATIONS OF COPCS IN LIVER OF SMALL MAMMALS, 2023

COPC	n > DL	Summary Statistics of COPC Concentrations in Small Mammal Liver, Control Subarea (n = 35; mg/kg ww)							
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Physical Tests									
Moisture (%)	35	64.6	69.4	1.93	0.327	70.0	69.3	72.3	73.7
Metals									
Aluminum	16	0.430	3.03	9.13	1.54	6.06	0.500	9.88	50.9
Antimony	14	<0.0020	0.00304	0.00370	0.000626	0.00427	0.00100	0.00856	0.0192
Arsenic	28	<0.0040	0.0225	0.079	0.0133	0.049	0.00890	0.0194	0.475

COPC	n > DL	Summary Statistics of COPC Concentrations in Small Mammal Liver, Control Subarea (n = 35; mg/kg ww)							
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Beryllium	0	<0.0020	-	-	-	-	-	-	<0.0020
Cadmium	35	<0.020	0.046	0.037	0.0063	0.058	0.0367	0.117	0.14
Chromium	9	<0.010	-	-	-	-	-	-	0.458
Cobalt	35	0.0154	0.0556	0.0437	0.00739	0.0701	0.0421	0.146	0.208
Copper	35	3.48	6.19	1.88	0.318	6.81	5.57	9.47	11.6
Iron	35	97.3	179	74.1	12.53	204	150	322	367
Lead	6	<0.0040	-	-	-	-	-	-	0.0340
Lithium	0	<0.10	-	-	-	-	-	-	<0.10
Manganese	35	2.02	3.75	1.64	0.277	4.29	3.34	6.98	10.5
Mercury	35	0.00180	0.0893	0.120	0.0202	0.129	0.0182	0.316	0.435
Molybdenum	35	0.670	1.28	0.363	0.0613	1.40	1.33	1.82	1.99
Nickel	8	<0.040	-	-	-	-	-	-	1.21
Selenium	35	0.316	1.038	0.498	0.0842	1.203	1.06	1.84	2.49
Thallium	27	<0.00040	0.00235	0.00205	0.000347	0.00303	0.00227	0.00622	0.0081
Zinc	35	19.2	25.9	4.65	0.787	27.5	26.1	34.0	39.6

Notes:
COPC = contaminant of potential concern; n = number of samples; DL = detection limit; UCLM = upper confidence limit of the mean; ww = wet weight.
"-" means that summary statistics, other than minimum and maximum, have not been calculated as more than 70% of samples were < DL.

TABLE 4.7-5 STUDY AREA-WIDE SUMMARY STATISTICS OF COPC CONCENTRATIONS IN SMALL MAMMAL CARCASS, 2023

COPC	n > DL	Summary Statistics of COPC Concentrations in Small Mammal Carcass, Study Area-wide (n = 57 mg/kg ww)							
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Physical Tests									
Moisture (%)	57	65.1	69.7	2.47	0.327	70.3	69.9	73.2	75.4
Metals									
Aluminum	57	6.78	46.0	23.8	3.15	52.2	39.8	98.1	116
Antimony	55	<0.0020	0.0303	0.0305	0.0040	0.0382	0.0210	0.0803	0.113
Arsenic	57	0.00920	0.0630	0.185	0.0245	0.111	0.0213	0.157	1.31
Beryllium	6	<0.0020	-	-	-	-	-	-	0.00290
Cadmium	57	0.00900	0.0630	0.127	0.0169	0.0961	0.0210	0.305	0.775
Chromium	57	0.0390	0.141	0.0587	0.0078	0.156	0.129	0.250	0.313
Cobalt	57	0.0196	0.0488	0.0159	0.00211	0.0529	0.0513	0.0737	0.0799
Copper	57	1.78	4.04	1.81	0.239	4.51	3.60	6.29	14.8
Iron	57	66.5	91.1	20.6	2.73	96.4	85.6	123	175
Lead	57	0.0100	0.0584	0.0473	0.00626	0.0707	0.0508	0.105	0.340
Lithium	1	<0.10	-	-	-	-	-	-	0.110
Manganese	57	2.81	8.55	4.40	0.583	9.69	7.26	18.1	22.4
Mercury	57	0.00180	0.0578	0.0630	0.00835	0.0742	0.0204	0.176	0.230
Molybdenum	57	0.0864	0.212	0.0853	0.0113	0.234	0.197	0.389	0.488
Nickel	57	0.0900	0.363	0.384	0.0509	0.463	0.235	1.22	2.25
Selenium	57	0.132	0.273	0.0800	0.0106	0.294	0.274	0.395	0.456

COPC	n > DL	Summary Statistics of COPC Concentrations in Small Mammal Carcass, Study Area-wide (n = 57 mg/kg ww)							
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Thallium	57	0.000560	0.00412	0.00320	0.000424	0.00495	0.00342	0.0109	0.0132
Zinc	57	23.3	31.4	3.66	0.485	32.4	31.5	36.9	41.2

Notes:
COPC = contaminant of potential concern; n = number of samples; DL = detection limit; UCLM = upper confidence limit of the mean; ww = wet weight.
"-" means that summary statistics, other than minimum and maximum, have not been calculated as more than 70% of samples were < DL.

TABLE 4.7-6 NEAR-FIELD SUBAREA SUMMARY STATISTICS OF COPC CONCENTRATIONS IN SMALL MAMMAL CARCASS, 2023

COPC	n > DL	Statistical Summary of COPC Concentrations in Small Mammal Carcass, Near-field Subarea (n = 22; mg/kg ww)							
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Physical Tests									
Moisture (%)	22	65.4	69.3	2.6	0.553	70.4	70.1	73.1	75.4
Metals									
Aluminum	22	18.0	50.8	27.1	5.78	62.1	47.0	99.9	116
Antimony	22	0.00250	0.0328	0.0299	0.0064	0.0453	0.0253	0.0827	0.113
Arsenic	22	0.0135	0.109	0.280	0.0596	0.226	0.0318	0.378	1.31
Beryllium	4	<0.0020	-	-	-	-	-	-	0.00250
Cadmium	22	0.00960	0.117	0.192	0.0410	0.197	0.0322	0.440	0.775
Chromium	22	0.0660	0.159	0.0565	0.0121	0.183	0.156	0.263	0.278
Cobalt	22	0.0196	0.0467	0.0149	0.00318	0.0529	0.0487	0.0657	0.0665
Copper	22	2.76	3.96	0.935	0.199	4.35	3.95	5.72	5.79
Iron	22	74.0	100	23.6	5.04	109	95.5	146	175

COPC	n > DL	Statistical Summary of COPC Concentrations in Small Mammal Carcass, Near-field Subarea (n = 22; mg/kg ww)							
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Lead	22	0.0343	0.0678	0.0298	0.00636	0.0803	0.0612	0.113	0.164
Lithium	1	<0.10	-	-	-	-	-	-	0.110
Manganese	22	3.31	9.01	4.41	0.940	10.9	8.17	18.0	22.4
Mercury	22	0.00580	0.0549	0.0462	0.00985	0.0742	0.0242	0.130	0.139
Molybdenum	22	0.0864	0.197	0.0533	0.0114	0.219	0.201	0.266	0.292
Nickel	22	0.0900	0.290	0.259	0.0552	0.398	0.215	0.780	1.22
Selenium	22	0.171	0.280	0.0819	0.0175	0.315	0.265	0.432	0.456
Thallium	22	0.000920	0.00585	0.00362	0.000772	0.00736	0.00535	0.0115	0.0126
Zinc	22	25.0	32.1	3.29	0.700	33.5	32.8	36.6	40.0

Notes:
COPC = contaminant of potential concern; n = number of samples; DL = detection limit; UCLM = upper confidence limit of the mean; ww = wet weight.
"-" means that summary statistics, other than minimum and maximum, have not been calculated as more than 70% of samples were < DL.

TABLE 4.7-7 CONTROL SUBAREA SUMMARY STATISTICS OF COPC CONCENTRATIONS IN SMALL MAMMAL CARCASS, 2023

COPC	n > DL	Summary Statistics of COPC Concentrations in Small Mammal Carcass, Control Subarea (n = 35; mg/kg ww)							
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Physical Tests									
Moisture (%)	35	65.1	70.0	2.39	0.404	70.7	69.9	73.2	75.1
Metals									
Aluminum	35	6.78	43.0	21.3	3.60	50.1	38.7	72.2	112
Antimony	33	0.00100	0.0288	0.0312	0.0053	0.0391	0.0080	0.0794	0.0840
Arsenic	35	0.00920	0.0341	0.0769	0.0130	0.0596	0.0164	0.0570	0.47

COPC	n > DL	Summary Statistics of COPC Concentrations in Small Mammal Carcass, Control Subarea (n = 35; mg/kg ww)							
		Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95th Percentile	Maximum
Beryllium	2	<0.0020	-	-	-	-	-	-	0.00290
Cadmium	35	0.00900	0.0290	0.0289	0.0049	0.0386	0.0176	0.0971	0.125
Chromium	35	0.0390	0.130	0.0579	0.0098	0.149	0.119	0.219	0.313
Cobalt	35	0.0222	0.0501	0.0166	0.00281	0.0556	0.0519	0.0768	0.0799
Copper	35	1.78	4.09	2.20	0.371	4.82	3.56	6.55	14.8
Iron	35	66.5	85.7	16.7	2.82	91.2	82.8	110	149
Lead	35	0.0100	0.0525	0.0551	0.00932	0.0707	0.0384	0.092	0.340
Lithium	0	0.10	-	-	-	-	-	-	0.050
Manganese	35	2.81	8.26	4.44	0.750	9.73	6.70	18.0	18.4
Mercury	35	0.00180	0.0597	0.0722	0.01220	0.0836	0.0123	0.199	0.230
Molybdenum	35	0.0953	0.222	0.1000	0.0169	0.255	0.197	0.434	0.488
Nickel	35	0.0980	0.409	0.443	0.0749	0.556	0.258	1.35	2.25
Selenium	35	0.132	0.268	0.0796	0.0135	0.295	0.280	0.381	0.389
Thallium	35	0.000560	0.00303	0.00237	0.000400	0.00382	0.00312	0.0057	0.0132
Zinc	35	23.3	31.0	3.86	0.653	32.3	30.9	36.9	41.2

Notes:
COPC = contaminant of potential concern; n = number of samples; DL = detection limit; UCLM = upper confidence limit of the mean; ww = wet weight.
"-" means that summary statistics, other than minimum and maximum, have not been calculated as more than 70% of samples were < DL.

4.7.2 STATISTICAL ANALYSIS

Appendix E.6 presents box plots of COPCs with detection levels greater than 30% (i.e., fewer than 70% non-detects) in either liver or carcass of small mammals. Concentrations of COPCs were plotted separately for carcass and liver tissues as there were differences in concentrations between these tissues.

Linear models were used to compare concentrations in carcass and liver tissues separately between control and near-field subareas, controlling for species differences. Thus, the models included both a "between species" term and a "control/impact" term to assess if there is a significant difference between subareas once species differences were accounted for. All analytes were natural log transformed prior to analysis. The *p*-values for the control/impact terms were adjusted using the Benjamini-Hochberg fdr method (Benjamini and Hochberg 1995). If these adjusted *p*-values were less than 0.05 it was concluded that there was a significant difference between near-field and control subareas. Tables of the comparisons are presented in Appendix C.5.

The adjusted *p*-value for control vs. impact (controlling for species differences) was less than 0.05 for arsenic, cadmium, iron, lead, mercury, and thallium in carcass; and arsenic and iron in liver. These results suggest that there are differences between impact and control for these analytes in carcass and liver respectively. To further understand these differences, the direction and magnitude of the effect was calculated using the ratio of the means of impact and control sites, which is a measure of the difference between the groups. Table 4.7-8 presents the results of this analysis.

TABLE 4.7-8 RATIOS AND MEAN CONCENTRATIONS IN NEAR-FIELD VERSUS CONTROL SUBAREAS, 2023

COPC	Ratio of Model Means	Lower 95% Confidence Interval of Ratio	Upper 95% Confidence Interval of Ratio	Control Subarea		Near-field Subarea	
				Mean	Standard Error	Mean	Standard Error
Carcass							
Arsenic	1.933	1.238	3.018	0.021	0.003	0.042	0.007
Cadmium	2.043	1.357	3.076	0.024	0.003	0.049	0.008
Iron	1.155	1.041	1.281	84.2	2.72	97.3	3.95
Lead	1.550	1.128	2.131	0.041	0.004	0.063	0.008
Mercury	1.545	1.143	2.088	0.026	0.002	0.040	0.005
Thallium	1.910	1.271	2.869	0.002	0.000	0.005	0.001
Liver							
Arsenic	1.915	1.134	3.232	0.009	0.002	0.018	0.004
Iron	0.809	0.681	0.962	172	9.32	139	9.47

The mean ratios suggest that the concentrations of arsenic, cadmium, and thallium in rodent carcasses were approximately two times higher at near-field sites compared to control sites. Lead and mercury concentrations in carcasses were approximately 55% higher and iron concentrations in carcasses were approximately 16% higher at near-field compared to control sites, but 20% lower at near-field compared to control sites for liver. Finally, arsenic in liver was approximately two times higher at near-field compared to control sites.

Small mammals may take up COPCs from ingesting water, soil, and food (other exposure pathways may also be possible but are considered negligible relative to the uptake from these three primary pathways). Both species of rodents that were sampled are omnivores that may eat plants, berries, seeds, insects, and fungi.

Higher concentrations of these COPCs in tissues of small mammals collected at near-field sites may be due to natural variation (e.g., reflecting the proximity of near-field sites to the mineralized mine site or localized areas of higher COPC concentrations), impacts from local wildfires, or impacts from Mine dust. However, there were no statistically significant differences in concentrations of arsenic, cadmium, iron, lead, mercury, or thallium observed in soil or willow tissues between control and near-field subareas in 2023 (see Section 4.35 for soil and Section 4.4.5 for plants), or between soil and plant tissues specifically from the eight mammal sampling sites (data not shown), indicating that the differences observed in small mammal tissues are not due to Mine-related effects.

Except for a few COPCs in tissues (e.g., aluminum in carcass, manganese in liver, nickel in carcass, thallium in liver) it appears that trends in COPC concentration between species were consistent between sub-areas. For example, if a COPC had higher concentration in livers of DM relative to RBV at near-field sites it was also higher in livers in DM relative to RBV at control sites (box plots in Appendix E.6; e.g., arsenic, cadmium, copper, molybdenum). Of note is the apparent difference (not statistically tested) in concentration of mercury in both carcass and livers between the species, where concentrations are higher in RBVs than in DMs. This may indicate species-specific differences in metal concentrations in tissues.

4.7.3 POWER ANALYSIS

A power analysis based on the 2023 small mammal tissue results was conducted in response to comments on the Framework for Small Mammal (Rodent) Sampling under the CFMP by UFN/LDN and their consultants (February 2022). Methods and results of the power analysis are presented in Appendix F. Assuming a sample size of 8 animals per species per site (i.e., 16 per site, for a total of 64 animals at near-field sites and 64 animals at control sites) all analytes with detection levels greater than 70%, combined with tissue type, achieved >80% power to detect a 50% site effect (e.g., near-field sites have on average 50% higher concentrations than control sites). With only four animals per species per site, the power ranged from 60-70% depending on the analyte and tissue combination. A detection of 25% difference in concentration between near-field and control sites could only be achieved at a power of approximately 70% and analyzing 20 animals per species per site.

4.8 QUALITY ASSURANCE / QUALITY CONTROL

4.8.1 SAMPLE INTEGRITY, STORAGE, AND TRANSPORT

4.8.1.1 GENERAL

During field sampling, standard sampling procedures were followed to preserve sample integrity and minimize the chances of cross-contamination. The field trips were completed safely with no environmental or safety incidents, and there were no additional concerns that would suggest the integrity of the samples would have been affected.

After delivery of the samples to the CALA-certified laboratory (ALS Laboratories, Burnaby, BC), a review of the sample receipt confirmation was completed to identify any issues that may have occurred during transport to the lab. The sample receipt confirmation indicated that the samples had been successfully delivered with no issues pertaining to sample and container integrity and all samples were analyzed within recommended holding times.

4.8.1.2 SURFACE WATER

Sampling and laboratory methods were completed in accordance with the AEMP, Version 1.0. Surface water quality sampling included the collection or carrying of 19 field blanks and 19 travel blanks in 2023. With the exception of pH, concentrations of water quality parameters are expected to be less than the detection limit in the blank samples. Measured parameters greater than the detection limit in field blanks represent potential sample contamination during sample preservation or contamination during field blank preparation. Measured parameters greater than the detection limit in travel blanks potentially represent contamination of samples in transit, contamination during laboratory analysis, or contamination during travel blank preparation.

There were 55 detectable values overall, most of which were detected in one travel blank (VA23C5293-008, n = 27, October 2023) and one field blank (VA23B7293-002, n = 4, July 2023). This travel blank laboratory batch (VA23C5293) was investigated further, and all samples within this batch (TL-01, TL-02, TL-03, and TL-04) appeared to be uninfluenced as parameter concentrations were generally within their historical ranges. (Note that sites TL-02 to TL-04 are sites included under the AEMP, but not the CFMP). All other blanks had limited detectable values (n = 1 to 2). Acidity was detected frequently (57.9% of the field blanks and 52.6% of the travel blanks), whereas other parameters were detected infrequently (< 6%). Overall, the results suggest that field and travel blanks collected during the monitoring period indicate that field sampling procedures were successful at avoiding sample contamination. Travel and field blank results are provided in Appendix A.3.

While the laboratory noted a few instances of method blank values, internal duplicate, matrix spikes, control sample recovery, and parameter frequency laboratory targets not being met, these checks overall met ALS Laboratories data quality objectives for internal QA/QC, and the report was issued and distributed by ALS Laboratories without further comment.

4.8.2 DUPLICATES AND RELATIVE PERCENT DIFFERENCE (RPD)

4.8.2.1 GENERAL

Field-split duplicate samples were submitted to ALS laboratory for blind analysis for approximately 10% of samples (4 replicates for soil, and 44 replicates for surface water). For vegetation (plants and berries), field-split duplicates represented about 5% of total samples.

The RPD values were calculated to evaluate variability among duplicate samples. Calculation of the RPD was performed for all parameters with measured values greater than five times the MDL. The results of RPD calculations for soil and for plant tissues are provided in Appendix G.1 and G.2. RPDs for surface water samples are presented as part of the 2023 AEMP Interpretive Report (ERM 2024) and reproduced in Appendix G.3.

4.8.2.2 SOIL

A total of 144 RPD calculations were performed for soil, of which 83 had concentrations greater than five times the DL. Based on CCME (2016), due to the high matrix variability in soils, an acceptable RPD value for duplicate soil samples is not exceeding 60%. Of the total calculations, less than one percent (n = 1; manganese) was at 60% and none were higher than 60%. This result indicates that for all soil parameters with values greater than five times the DL, sample replication was overall successful, samples were reasonably homogenous, and were within the typical margin of natural variability. There were no systematic issues with soil sampling or analytical methods.

4.8.2.3 PLANTS

Calculations for RPDs in plant tissues were based on the primary laboratory result in mg/kg dry weight to limit variability introduced by conversion to wet weight using moisture content. A total of 148 RPD calculations were performed for plants, of which 70 were based on concentrations greater than five times the DL. Based on CCME (2016), and assuming that plant tissues have similar matrix variability as soils, an acceptable value for duplicate plant tissue samples is not exceeding 60%. Of the total calculations, less than one percent (n = 1; arsenic) was higher than 60%. This indicates that sample replication was overall successful, samples were reasonably homogenous, and were within the typical margin of natural variability. There were no systematic issues with plant tissue sampling or analytical methods.

4.8.2.4 SURFACE WATER

Forty-four (44) field duplicates were collected in 2023 (Appendix F.3), of which 36 were collected from streams under the CFMP. A total of 3,312 relative percent difference (RPD) comparisons were made in 2023 for these stream sites, and 1,244 RPDs were calculated. The BC provincial government recommends that any field duplicates with RPD values exceeding 20% indicate a possible problem and RPD values above 50% suggest a definite problem, most likely either contamination or lack of sample representativeness (BC ENV 2013).

Of the calculated RPDs, 2.6% (n = 33) of the RPDs were in the range of 20% to 50%, and 0.8% (n = 10) of the RPDs were greater than 50%. This result indicates for the majority of parameters with values greater than five times the DL in Mine streams, sample replication was overall successful, did not indicate any systematic issues with sampling or analytical methods, and was within the typical margin of natural variability. The RPD calculations greater than 20% were limited to 25 parameters: turbidity, sulfate, total Kjeldahl nitrogen, total phosphate; dissolved organic carbon; total and dissolved aluminum, barium, calcium, magnesium, molybdenum, silicon, and uranium; and total iron, manganese strontium, and titanium.

5. ADAPTIVE MANAGEMENT AND ACTION LEVELS

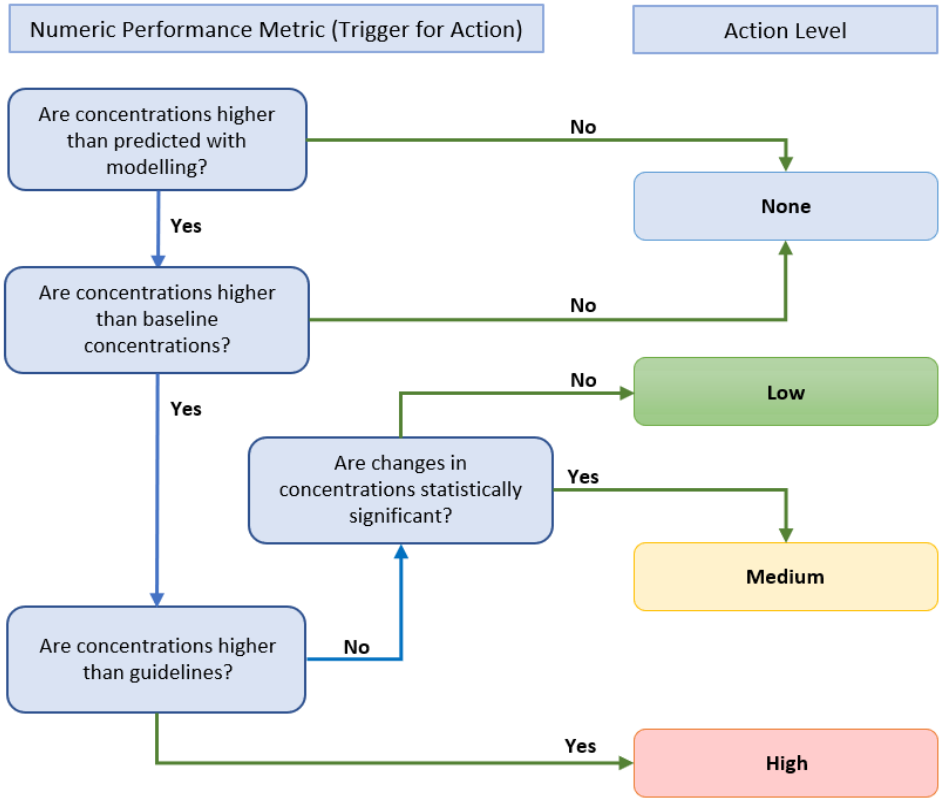
An adaptive management framework is provided in Section 6 of the CFMP and was briefly described in Section 2.

The following subsections describe the country foods trigger response framework (Section 5.1) and identify the action level under the CFMP adaptive management framework based on the monitoring data collected in 2023 (Sections 5.2 to 5.6).

5.1 COUNTRY FOODS TRIGGER RESPONSE FRAMEWORK

Triggers (or NPMs) are provided at the following action levels of the adaptive management framework: none, low, medium, and high. The framework is intended to provide an early-warning system such that there is sufficient time to prevent adverse effects to human health when defined action levels are triggered. An overview of the trigger response framework and action levels is provided in Figure 5.1-1. Note that Figure 5.1-1 has been modified slightly from the one shown in the CFMP Version 1.0 so that statistical significance is secondary to whether concentrations are higher than guidelines (i.e., a high action level is triggered if there are exceedances of guidelines, baseline, and predicted concentrations, regardless of whether changes are identified to be statistically significant or not).

FIGURE 5.1-1 OVERVIEW OF ACTION LEVELS AND TRIGGERS (NUMERIC PERFORMANCE METRICS)



Additional details about the trigger response framework can be found in Section 6 of the CFMP. The human health trigger concentrations or NPMs used in the trigger response framework based on predicted COPC concentrations, baseline COPC concentrations, and guidelines or standards are briefly described in Section 4.1 and their derivation is further described in the HHTAM (ERM 2023f).

5.2 ACTION LEVEL BASED ON AIR QUALITY MONITORING IN 2023

Based on comparisons of calculated PM_{10}-associated COPC concentrations during the 2023 monitoring period, of the four measurable COPCs associated with PM_{10} (aluminum, iron, lead, and manganese), lead and manganese concentrations in PM_{10} were higher than the Baseline AQ NPM and the Predicted AQ NPM, but less than the AQ Guideline NPM (Table 5.2-1 and Section 4.2).

TABLE 5.2-1 TRIGGER AND MANAGEMENT RESPONSE BASED ON PM10-ASSOCIATED METALS IN AIR

Level	Trigger	Management Response
Low	Mean annual metal concentrations in air (associated with PM_{10}) may be increasing in a manner not predicted by the air quality model but are below levels of concern. Measured mean annual metal concentrations in PM_{10} are: • Higher than the predicted EPC plus 20%; and • Higher than the baseline trigger concentration plus 20%; and • Less than the OAAQCs or ESLs; • but changes in concentration are not statistically significant between near-field and control sites or compared to baseline conditions (BACI analysis).	• Identify causes of potential changes in concentrations so that existing mitigation measures can be adjusted or targeted mitigation measures can be identified for implementation if needed. • Plan a dust sampling program to define the magnitude, spatial extent, and reversibility of the potential effect. • After two cycles of monitoring with no statistically significant effects, decrease sampling frequency to once every six years • Other responses as defined in the AQDMP report.

BACI analysis found that the concentrations of lead in PM_{10} were not significantly different (p = 0.56). While, concentrations of manganese in PM_{10} were significantly different (p = 0.015), it was the control site that had the higher concentrations in 2023, which is not likely attributed to Mine effects.

As per Table 6.3-1 of the CFMP (ERM 2022), the current level in the trigger response plan for air quality is the “Low” action level for 2023. However, no specific immediate action is recommended based on 2023 monitoring results because:

- Concentrations higher than Baseline AQ NPMs were predicted to occur, so exceedance of the Baseline NPM is not of concern on its own. Quantities of most COPCs in dustfall (and concentrations in PM_{10}) at both control and impact sites were below DLs.
- Concentrations higher than the Predicted NPMs are likely an artefact of the methods used to estimate metal concentrations in PM_{10} (proportions of metals based on baseline soil concentrations) in the *HHRA Update report* (Entia 2021, 2022a). The measured PM10 from 2023 was 11.2 µg/m^3, while the PM10 concentration used to represent Project Case (baseline +

Project) concentrations in the *HHRA Update* report (Entia 2021, 2022a) was 11 µg/m^3. The PM_{10} concentrations are very similar, so it is likely that the proportions of metals derived from baseline soil concentrations is not fully representative of the metal proportions in dustfall. During the next update of the HHRA or the HHTAM report, it is recommended that more representative concentrations for metals in dust (PM_{10}) be used, rather than using soil concentrations.

- The only statistically significant change identified in 2023 in the BACI analysis was for manganese in PM_{10} where the concentrations were higher at control sites, not impact sites. While the change is statistically significant, it is not a Mine effect.

5.3 ACTION LEVEL BASED ON SOIL QUALITY MONITORING IN 2023

As described in Sections 4.3.1 to 4.3.4, the mean 2023 soil metal concentrations across the CFMP study area did not exceed the SQ Guideline NPM, SQ Baseline NPM, or the Predicted SQ NPM and, therefore, the resulting trigger level is “None” (Table 5.3-1).

TABLE 5.3-1 TRIGGER AND MANAGEMENT RESPONSE BASED ON METAL CONCENTRATIONS IN SOIL

Level	Trigger	Management Response
None	Mean measured metal concentrations in soil are: • Less than or equal to the predicted concentration plus 60%; or • Less than or equal to the baseline trigger concentration plus 60%; or • Less than the soil quality guidelines.	• No change to mitigation as mitigation measures are performing as expected • After two cycles of monitoring with no statistically significant effects, decrease sampling frequency once every six years

5.4 ACTION LEVEL BASED ON PLANT AND BERRY QUALITY MONITORING IN 2023

As described in Sections 4.4.1 to 4.4.4, the mean 2023 plant metal concentrations across the CFMP study area did not exceed the CF Guideline NPM, the Baseline CF NPM for Plants, or the Predicted Plant NPM. Although arsenic concentrations in one of the two berry samples collected in 2023 exceeded the CF Guideline NPM, the Baseline Berry NPM, and the Predicted Berry NPM, based on previous berry arsenic results it is likely that this concentration is an outlier (see Section 4.4.4). Therefore, the resulting trigger level for plants and berries is “None” (Table 5.4-1).

TABLE 5.4-1 TRIGGER AND MANAGEMENT RESPONSE BASED ON METAL CONCENTRATIONS IN PLANTS AND BERRIES

Level	Trigger	Management Response
None	Mean measured concentration in plants or berries are: • Less than or equal to predicted concentrations in plants or berries plus 60%; and • Less than or equal to baseline trigger concentration in plants or berries plus 60%; or • Less than country foods trigger benchmarks.	• No change to mitigation as mitigation measures are performing as expected • After two cycles of monitoring with no statistically significant effects, decrease sampling frequency to once every six years

5.5 ACTION LEVEL BASED ON SURFACE WATER QUALITY MONITORING IN 2023

Mean COPC concentrations measured in surface water during the period from October 1, 2022 to December 31, 2023 were compared to NPMs. The data from October to December 2022 were included in this comparison for the 2023 monitoring period as this was a period of only three months and did not constitute a full year.

Mean concentrations of all COPCs at impact and control sites were below the DWQG NPMs; therefore, concentrations are below levels of concern for human health (Section 4.5.1). With the exception of iron, mean concentrations of COPCs in surface water at impact sites were lower than the Baseline WQ NPM (Section 4.5.3). Further, with the exception of iron, mean concentrations of COPCs in surface water at prediction sites were lower than the Predicted WQ NPM (Section 4.5.4). BACI for iron showed that the change in concentration above Baseline WQ NPM (with an exceedance factor of 1.08) and the Predicted WQ NPM (exceedance factor of 1.33) was not significant (*adjusted p* = 0.49). Given that there were no discharges to surface water from the Mine in 2024 and the apparent changes in iron concentrations were not significant in 2023, it is likely that concentrations of iron are attributable to naturally occurring conditions and variability, rather than Mine effects on water quality.

As per Table 6.3-4 of the CFMP (ERM 2022), other than the “None” trigger level, the determination of trigger level and recommendations for management responses for surface water quality is based on changes being observed in two or more consecutive years of monitoring. Therefore, the 2024 CFMP Annual Report will undertake the same analysis for surface water quality data as was provided in this report for 2023 and, based on the results for these two consecutive years, make a determination regarding applicable trigger level and management responses for surface water.

5.6 ACTION LEVEL BASED ON FISH TISSUE QUALITY MONITORING IN 2023

As described in Sections 4.6.1 to 4.6.4, the mean 2023 fish tissue COPC concentrations were lower than the CF Guideline NPM, the CF Baseline NPM, and the Predicted CF NPM for fish tissues. Therefore, the resulting Trigger Level is “None” (Table 5.6-1).

In addition, a statistical comparison between means of near-field (impact) and control site COPC concentrations showed that there is no significant difference and, therefore, effects from the Mine on fish tissue COPC concentrations are not likely.

TABLE 5.6-1 TRIGGER AND MANAGEMENT RESPONSE BASED ON METAL CONCENTRATIONS IN FISH

Level	Trigger	Management Response
None	Measured mean concentration in fish are: • Less than or equal to predicted concentrations in fish tissues plus 60%; or • Less than or equal to baseline trigger concentration in fish tissues plus 60%; and • Less than country foods trigger benchmarks.	• No change to mitigation as mitigation measures are performing as expected • After two cycles of monitoring with no statistically significant effects, decrease sampling frequency to once every six years

6. PLANNED CFMP SAMPLING PROGRAM FOR 2024

No sampling of environmental media under the CFMP is planned for 2024, except for regular sampling that occurs under linked monitoring plans (AQDMP and AEMP). This sampling includes sampling of PM_{10} (and other CACs) under the AQDMP, the ongoing monthly and 5-in-30 sampling program for surface water (creeks and lakes) under the AEMP, and fish tissue sampling under the AEMP.

Although not required under the CFMP, fish tissue COPC concentrations will be monitored in 2024 under the AEMP and, therefore, the 2024 CFMP Annual Report will include an analysis of fish tissue data to determine if there are any Mine-related effects on fish as country foods. The 2024 CFMP Annual report will also analyze 2024 data for surface water quality and PM_{10} as they relate to human health.

The monitoring frequency for dustfall, soil, and country foods (plants and berries) under the CFMP is once every three years. As Early Works Construction began in October 2022, the first Construction phase monitoring was completed in 2023 and, therefore, the next routine sampling for these media is planned to occur again in 2026. Under the CFMP, when the trigger level is “none” (as is the case for soil, plants, and berries) or “low” (as is the case for air quality), after two cycles of monitoring with no statistically significant effects, the sampling frequency can be decreased to once every six years. This will be assessed in 2026.

Small mammals will also not be sampled in 2024. The small mammal program was intended to provide baseline or pre-Operations phase concentrations of COPCs in rodent tissues. At minimum, BW Gold has committed to sampling small mammals at the end of Construction phase/beginning of Operations phase, once midway through Operations phase, and once at the end of the Operations phase, with the potential for additional sampling if triggered by changes in other terrestrial media. It is important that the timing of small mammal sampling be coordinated in future sampling events to coincide with sampling of other environmental media, as interpretation of resultant data is improved when concurrent data are available from multiple media (i.e., soil, plants, water). The Indigenous-led hunted game animal program will continue throughout 2024.

7. SUMMARY

The Mine initiated limited Early Works construction activities at the mine site in October 2022, which continued in 2023. In July 2023, a lightning-caused wildfire (Davidson Creek wildfire) occurred in areas adjacent to the Mine, which affected field sampling programs, particularly in the terrestrial environment. Although access to the mine site resumed in late July, the wildfire impacted the field sampling programs under the CFMP by preventing safe access to some sites (e.g., due to presence of danger trees) or burning of species that would normally be sampled at a given site, and the field programs were generally carried out later in the field season (e.g., late August into September) due to access limitations.

Sampling in 2023 under the CFMP included air quality (metals associated with dustfall, as a surrogate for metals associated with PM_{10}), soil, vegetation (plants and berries), small mammals, surface water quality, and fish tissue.

Results of sampling in 2023 are summarized for metals in PM_{10}, soil, plants, surface water, and fish tissue in the following paragraphs in the context of the adaptive management framework for the CFMP. Sampling of small mammals in 2023 was completed to provide baseline or pre-Operations phase data on tissue concentrations of COPCs, as a foundation for future monitoring.

For metals associated with PM_{10}, mean concentrations of all parameters were lower than the AQ Guideline NPMs. However, manganese and lead were found to be higher than the Baseline and Predicted NPMs. BACI analysis for manganese and lead found that changes in lead concentrations were not significant and that manganese concentrations were significantly higher at control sites than at impact sites. Based on results of 2023 monitoring, the trigger level in the adaptive management framework for air quality is “Low”. However, no specific immediate action is recommended based on 2023 monitoring results because concentrations higher than the Predicted NPMs are likely an artefact of the methods used to estimate metal concentrations in PM_{10} and because statistically significant concentrations were higher at control sites, not impact sites, and are not a Mine effect.

For soil, mean concentrations of all parameters were lower than Baseline, Predicted, and Guideline NPMs for soil. Similarly for plants, mean concentrations of all parameters were lower than Baseline, Predicted, and CF Guideline NPMs for plants. For berries, few samples were obtained in 2023 and, other than arsenic in one berry sample, all COPC concentrations were below the Baseline, Predicted, and CF Guideline NPMs for berries. The arsenic concentrations in one huckleberry sample that was higher than the NPMs appears to be an outlier, as it is substantially higher than any arsenic concentration measured previously and significant changes in arsenic concentrations were not noted in either soil or plants. Thus, based on 2023 monitoring results, the trigger level in the adaptive management framework for soil and plants is “None”.

Because of statistically significant differences in tissue concentrations of COPCs in plant (willow, sedge, and Labrador tea) tissues between cumulative baseline data from 2021-2022 and the 2023 monitoring period, it is not recommended to include the 2023 vegetation and soil data in the cumulative 2021-2022 baseline.

There were no Mine discharges to surface water in 2023. Mean concentrations of all parameters were below WQ Guideline NPMs. Except for iron, mean concentrations of all COPCs were below the Baseline and Predicted NPMs. Based on BACI analysis, the apparent change in iron concentrations was not significant and changes in the mean concentration were likely driven by a few samples with high concentrations and are not indicative of Mine-related changes to water quality. Assignment to a trigger level for water quality in the adaptive management was not completed because it is based on monitoring results from two consecutive years of sampling that indicate an exceedance of the Baseline or Predicted NPMs. Since iron concentrations were below all NPMs in 2022, iron was the only parameter with mean concentrations higher than Baseline and Predicted NPMs in 2023, the change in iron concentration was not significant in 2023, and mean iron concentrations are 25 times lower than the DWQG, it is recommended that no immediate action is required based on results of 2023 monitoring in surface water.

For fish tissue, mean concentrations were lower than Baseline, Predicted, and CF Guideline NPMs for fish tissue. Thus, based on 2023 monitoring results, the trigger level in the adaptive management framework for fish tissue is “None”.

Based on the overall results of the 2023 monitoring programs under the CFMP, no adjustments to current mitigation measures to protect human health are required at this time. The results of the 2023 monitoring program are in line with expectations, given the Early Works and other construction activities in 2023, during which there were no Mine discharges of effluent to surface water.

Sampling under the CFMP or linked monitoring programs is proposed for 2024, including the following:

- Air quality for CACs (PASS, Partisol), as described in the AQDMP;
- Fish tissue sampling, as described in the AEMP; and
- Surface water quality.

8. REFERENCES

Definitions of the acronyms and abbreviations used in this reference list can be found in the Acronyms and Abbreviations section.

Legislation and Regulations

Contaminated Sites Regulation, B.C. Reg. 375/96.

Environmental Assessment Act, SBC 2018, c 51.

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Secondary Sources

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APPENDIX A RAW DATA FOR 2023 CONSTRUCTION MONITORING PERIOD

Appendix A.1 Air Quality Results, 2023

Appendix A.2 Soil and Plant and Berry Tissues Quality Results, 2023

Appendix A.3 Surface Water Quality Results, 2023

Appendix A.4 Fish Tissues Quality Results, 2023

Appendix A.5 Small Mammal Tissues Quality Results, 2023

Appendix A.1 Air Quality Results, 2023

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C3366**	Page	: 1 of 8
Client	: **ERM Consultants Canada Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Jessica Lowey	Account Manager	: Amber Springer
Address	: 10th Floor, 1100 Melville St. Vancouver BC Canada V6E 4A6	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: 604 689 9460	Telephone	: +1 604 253 4188
Project	: 0700679-02-001 (Blackwater)	Date Samples Received	: 30-Sep-2023 11:00
PO	: 12970	Date Analysis Commenced	: 05-Oct-2023
C-O-C number	: ----	Issue Date	: 18-Oct-2023 17:59
Sampler	: ----		
Site	: ----		
Quote number	: ERM/BW Gold SW (VA22-BWGL100-002/Q56205)		
No. of samples received	: 8		
No. of samples analysed	: 8		

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

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

Signatories

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

Signatories	*Position*	*Laboratory Department*
Angela Ren	Team Leader - Metals	Metals, Burnaby, British Columbia
Cecilia Zhang	Account Manager Assistant	Administration, Burnaby, British Columbia
Cindy Tang	Team Leader - Inorganics	Inorganics, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Kinny Wu	Lab 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*
cm²	square centimetres
days	days
mg	milligrams
mg/dm².day	milligrams per square decimetre per day

<: 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: **Dustfall** (Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	14	40	27	6	32
					Client sampling date / time	03-Sep-2023 08:44	04-Sep-2023 13:39	04-Sep-2023 15:40	04-Sep-2023 16:00	14-Sep-2023 08:45
						VA23C3366-001	VA23C3366-002	VA23C3366-003	VA23C3366-004	VA23C3366-005
						Result	Result	Result	Result	Result
Field Tests										
Area sampled, field	----	EF001A/VA	0.010	cm²		55.4	55.4	55.4	55.4	55.4
Sampling time, field	----	EF001B/VA	1	days		23	21	21	23	12
Particulates										
Dustfall, total	----	EC880.A/VA	0.10	mg/dm².day		0.71	<0.16	<0.16	0.15	<0.28
Dustfall, total	----	E880/VA	1.90	mg		9.02	<1.90	<1.90	1.92	<1.90
Total Metals										
Aluminum, total	7429-90-5	EC447/VA	0.000160	mg/dm².day		0.00244	0.00112	0.00106	0.00134	0.00114
Antimony, total	7440-36-0	EC447/VA	0.0000026	mg/dm².day		<0.0000039	<0.0000043	<0.0000043	<0.0000039	<0.0000075
Arsenic, total	7440-38-2	EC447/VA	0.0000026	mg/dm².day		<0.0000039	<0.0000043	<0.0000043	<0.0000039	<0.0000075
Barium, total	7440-39-3	EC447/VA	0.0000026	mg/dm².day		0.000266	0.000156	0.000130	0.000175	0.0000949
Beryllium, total	7440-41-7	EC447/VA	0.000013	mg/dm².day		<0.000020	<0.000021	<0.000021	<0.000020	<0.000038
Bismuth, total	7440-69-9	EC447/VA	0.000013	mg/dm².day		<0.000020	<0.000021	<0.000021	<0.000020	<0.000038
Boron, total	7440-42-8	EC447/VA	0.00026	mg/dm².day		<0.00039	<0.00043	<0.00043	<0.00039	<0.00075
Cadmium, total	7440-43-9	EC447/VA	0.0000013	mg/dm².day		<0.0000016	<0.0000017	<0.0000017	<0.0000016	<0.0000030
Calcium, total	7440-70-2	EC447/VA	0.00052	mg/dm².day		0.0255	0.0133	0.0113	0.0137	0.0126
Chromium, total	7440-47-3	EC447/VA	0.000013	mg/dm².day		<0.000020	<0.000021	<0.000021	<0.000020	<0.000038
Cobalt, total	7440-48-4	EC447/VA	0.0000026	mg/dm².day		<0.0000039	<0.0000043	<0.0000043	<0.0000039	<0.0000075
Copper, total	7440-50-8	EC447/VA	0.000026	mg/dm².day		<0.000039	<0.000043	<0.000043	<0.000039	<0.000075
Iron, total	7439-89-6	EC447/VA	0.00079	mg/dm².day		0.00180	<0.00129	<0.00129	<0.00118	<0.00226
Lead, total	7439-92-1	EC447/VA	0.0000013	mg/dm².day		0.0000021	<0.0000021	<0.0000021	<0.0000020	<0.0000038
Lithium, total	7439-93-2	EC447/VA	0.00013	mg/dm².day		<0.00020	<0.00021	<0.00021	<0.00020	<0.00038
Magnesium, total	7439-95-4	EC447/VA	0.00013	mg/dm².day		0.00495	0.00189	0.00229	0.00166	0.00149
Manganese, total	7439-96-5	EC447/VA	0.0000052	mg/dm².day		0.00312	0.000902	0.000713	0.000793	0.000964
Mercury, total	7439-97-6	EC516/VA	0.0000013	mg/dm².day		<0.0000020	<0.0000021	<0.0000021	<0.0000020	<0.0000038
Molybdenum, total	7439-98-7	EC447/VA	0.0000013	mg/dm².day		<0.0000020	<0.0000021	<0.0000021	<0.0000020	<0.0000038
Nickel, total	7440-02-0	EC447/VA	0.000013	mg/dm².day		<0.000020	<0.000021	<0.000021	<0.000020	<0.000038
Phosphorus, total	7723-14-0	EC447/VA	0.0013	mg/dm².day		0.0067	0.0024	0.0138	<0.0020	<0.0038
Potassium, total	7440-09-7	EC447/VA	0.0013	mg/dm².day		0.0460	0.0058	0.0240	0.0029	<0.0038
Selenium, total	7782-49-2	EC447/VA	0.000026	mg/dm².day		<0.000039	<0.000043	<0.000043	<0.000039	<0.000075

Analytical Results

Sub-Matrix: **Dustfall** (Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	14	40	27	6	32
					Client sampling date / time	03-Sep-2023 08:44	04-Sep-2023 13:39	04-Sep-2023 15:40	04-Sep-2023 16:00	14-Sep-2023 08:45
						VA23C3366-001	VA23C3366-002	VA23C3366-003	VA23C3366-004	VA23C3366-005
						Result	Result	Result	Result	Result
Total Metals										
Silicon, total	7440-21-3	EC447/VA	0.0013	mg/dm².day		0.0034	<0.0021	<0.0021	<0.0020	<0.0038
Silver, total	7440-22-4	EC447/VA	0.00000026	mg/dm².day		<0.00000039	<0.00000043	<0.00000043	<0.00000039	<0.00000075
Sodium, total	7440-23-5	EC447/VA	0.0013	mg/dm².day		<0.0020	<0.0021	0.0068	<0.0020	<0.0038
Strontium, total	7440-24-6	EC447/VA	0.0000026	mg/dm².day		0.000181	0.0000812	0.0000712	0.0000848	0.0000608
Thallium, total	7440-28-0	EC447/VA	0.0000026	mg/dm².day		<0.0000039	<0.0000043	<0.0000043	<0.0000039	<0.0000075
Tin, total	7440-31-5	EC447/VA	0.0000026	mg/dm².day		<0.0000039	<0.0000043	<0.0000043	<0.0000039	<0.0000075
Titanium, total	7440-32-6	EC447/VA	0.00026	mg/dm².day		<0.00039	<0.00043	<0.00043	<0.00039	<0.00075
Uranium, total	7440-61-1	EC447/VA	0.0000026	mg/dm².day		<0.0000026	<0.0000026	<0.0000026	<0.0000026	<0.0000026
Vanadium, total	7440-62-2	EC447/VA	0.000026	mg/dm².day		<0.000039	<0.000043	<0.000043	<0.000039	<0.000075
Zinc, total	7440-66-6	EC447/VA	0.000079	mg/dm².day		0.000314	<0.000129	<0.000129	<0.000118	<0.000226
Aluminum, total	7429-90-5	E447/VA	0.0030	mg		0.0311	0.0130	0.0124	0.0171	0.0076
Antimony, total	7440-36-0	E447/VA	0.000050	mg		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Arsenic, total	7440-38-2	E447/VA	0.000050	mg		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Barium, total	7440-39-3	E447/VA	0.000050	mg		0.00339	0.00181	0.00151	0.00223	0.000631
Beryllium, total	7440-41-7	E447/VA	0.00025	mg		<0.00025	<0.00025	<0.00025	<0.00025	<0.00025
Bismuth, total	7440-69-9	E447/VA	0.00025	mg		<0.00025	<0.00025	<0.00025	<0.00025	<0.00025
Boron, total	7440-42-8	E447/VA	0.0050	mg		<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cadmium, total	7440-43-9	E447/VA	0.000020	mg		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Calcium, total	7440-70-2	E447/VA	0.010	mg		0.325	0.155	0.131	0.175	0.084
Chromium, total	7440-47-3	E447/VA	0.00025	mg		<0.00025	<0.00025	<0.00025	<0.00025	<0.00025
Cobalt, total	7440-48-4	E447/VA	0.000050	mg		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Copper, total	7440-50-8	E447/VA	0.00050	mg		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Iron, total	7439-89-6	E447/VA	0.015	mg		0.023	<0.015	<0.015	<0.015	<0.015
Lead, total	7439-92-1	E447/VA	0.000025	mg		0.000027	<0.000025	<0.000025	<0.000025	<0.000025
Lithium, total	7439-93-2	E447/VA	0.0025	mg		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Magnesium, total	7439-95-4	E447/VA	0.0025	mg		0.0631	0.0220	0.0266	0.0211	0.0099
Manganese, total	7439-96-5	E447/VA	0.00010	mg		0.0398	0.0105	0.00830	0.0101	0.00641
Mercury, total	7439-97-6	E516/VA	0.000025	mg		<0.000025	<0.000025	<0.000025	<0.000025	<0.000025
Molybdenum, total	7439-98-7	E447/VA	0.000025	mg		<0.000025	<0.000025	<0.000025	<0.000025	<0.000025
Nickel, total	7440-02-0	E447/VA	0.00025	mg		<0.00025	<0.00025	<0.00025	<0.00025	<0.00025

Analytical Results

Sub-Matrix: **Dustfall**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	14	40	27	6	32
					Client sampling date / time	03-Sep-2023 08:44	04-Sep-2023 13:39	04-Sep-2023 15:40	04-Sep-2023 16:00	14-Sep-2023 08:45
						VA23C3366-001	VA23C3366-002	VA23C3366-003	VA23C3366-004	VA23C3366-005
						Result	Result	Result	Result	Result
Total Metals										
Phosphorus, total	7723-14-0	E447/VA	0.025	mg		0.085	0.028	0.161	<0.025	<0.025
Potassium, total	7440-09-7	E447/VA	0.025	mg		0.586	0.068	0.279	0.037	<0.025
Selenium, total	7782-49-2	E447/VA	0.00050	mg		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Silicon, total	7440-21-3	E447/VA	0.025	mg		0.044	<0.025	<0.025	<0.025	<0.025
Silver, total	7440-22-4	E447/VA	0.0000050	mg		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Sodium, total	7440-23-5	E447/VA	0.025	mg		<0.025	<0.025	0.079	<0.025	<0.025
Strontium, total	7440-24-6	E447/VA	0.000050	mg		0.00231	0.000945	0.000828	0.00108	0.000404
Thallium, total	7440-28-0	E447/VA	0.000050	mg		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Tin, total	7440-31-5	E447/VA	0.000050	mg		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Titanium, total	7440-32-6	E447/VA	0.0050	mg		<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Uranium, total	7440-61-1	E447/VA	0.0000050	mg		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Vanadium, total	7440-62-2	E447/VA	0.00050	mg		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc, total	7440-66-6	E447/VA	0.0015	mg		0.0040	<0.0015	<0.0015	<0.0015	<0.0015

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

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

Analytical Results

Sub-Matrix: **Dustfall** (Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: 4	19	24	----	----
					Client sampling date / time: 04-Sep-2023 10:30	04-Sep-2023 14:40	06-Sep-2023 13:08	----	----
					VA23C3366-006	VA23C3366-007	VA23C3366-008	--------	--------
					Result	Result	Result	----	----
Field Tests									
Area sampled, field	----	EF001A/VA	0.010	cm²	55.4	55.4	55.4	----	----
Sampling time, field	----	EF001B/VA	1	days	24	24	21	----	----
Particulates									
Dustfall, total	----	EC880.A/VA	0.10	mg/dm².day	0.15	0.33	<0.16	----	----
Dustfall, total	----	E880/VA	1.90	mg	2.05	4.38	<1.90	----	----
Total Metals									
Aluminum, total	7429-90-5	EC447/VA	0.000160	mg/dm².day	0.00389	0.00360	0.00159	----	----
Antimony, total	7440-36-0	EC447/VA	0.0000026	mg/dm².day	<0.0000038	<0.0000038	<0.0000043	----	----
Arsenic, total	7440-38-2	EC447/VA	0.0000026	mg/dm².day	0.0000069	<0.0000038	<0.0000043	----	----
Barium, total	7440-39-3	EC447/VA	0.0000026	mg/dm².day	0.000150	0.000144	0.000103	----	----
Beryllium, total	7440-41-7	EC447/VA	0.000013	mg/dm².day	<0.000019	<0.000019	<0.000021	----	----
Bismuth, total	7440-69-9	EC447/VA	0.000013	mg/dm².day	<0.000019	<0.000019	<0.000021	----	----
Boron, total	7440-42-8	EC447/VA	0.00026	mg/dm².day	<0.00038	<0.00038	<0.00043	----	----
Cadmium, total	7440-43-9	EC447/VA	0.0000013	mg/dm².day	<0.0000015	<0.0000015	<0.0000017	----	----
Calcium, total	7440-70-2	EC447/VA	0.00052	mg/dm².day	0.0123	0.0106	0.00920	----	----
Chromium, total	7440-47-3	EC447/VA	0.000013	mg/dm².day	<0.000019	<0.000019	<0.000021	----	----
Cobalt, total	7440-48-4	EC447/VA	0.0000026	mg/dm².day	<0.0000038	<0.0000038	<0.0000043	----	----
Copper, total	7440-50-8	EC447/VA	0.000026	mg/dm².day	<0.000038	<0.000038	<0.000043	----	----
Iron, total	7439-89-6	EC447/VA	0.00079	mg/dm².day	0.00353	0.00331	0.00146	----	----
Lead, total	7439-92-1	EC447/VA	0.0000013	mg/dm².day	0.0000116	0.0000021	<0.0000021	----	----
Lithium, total	7439-93-2	EC447/VA	0.00013	mg/dm².day	<0.00019	<0.00019	<0.00021	----	----
Magnesium, total	7439-95-4	EC447/VA	0.00013	mg/dm².day	0.00204	0.00241	0.00141	----	----
Manganese, total	7439-96-5	EC447/VA	0.0000052	mg/dm².day	0.00102	0.000696	0.000580	----	----
Mercury, total	7439-97-6	EC516/VA	0.0000013	mg/dm².day	<0.0000019	<0.0000019	<0.0000021	----	----
Molybdenum, total	7439-98-7	EC447/VA	0.0000013	mg/dm².day	<0.0000019	<0.0000019	<0.0000021	----	----
Nickel, total	7440-02-0	EC447/VA	0.000013	mg/dm².day	<0.000019	<0.000019	<0.000021	----	----
Phosphorus, total	7723-14-0	EC447/VA	0.0013	mg/dm².day	0.0028	0.0022	<0.0021	----	----
Potassium, total	7440-09-7	EC447/VA	0.0013	mg/dm².day	0.0075	0.0057	0.0023	----	----
Selenium, total	7782-49-2	EC447/VA	0.000026	mg/dm².day	<0.000038	<0.000038	<0.000043	----	----
Silicon, total	7440-21-3	EC447/VA	0.0013	mg/dm².day	0.0047	0.0048	<0.0021	----	----

Analytical Results

Sub-Matrix: **Dustfall** (Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	4	19	24	----	----
					Client sampling date / time	04-Sep-2023 10:30	04-Sep-2023 14:40	06-Sep-2023 13:08	----	----
						VA23C3366-006	VA23C3366-007	VA23C3366-008	--------	--------
						Result	Result	Result	----	----
Total Metals										
Silver, total	7440-22-4	EC447/VA	0.00000026	mg/dm².day		<0.00000038	<0.00000038	<0.00000043	----	----
Sodium, total	7440-23-5	EC447/VA	0.0013	mg/dm².day		<0.0019	<0.0019	<0.0021	----	----
Strontium, total	7440-24-6	EC447/VA	0.0000026	mg/dm².day		0.0000666	0.0000682	0.0000554	----	----
Thallium, total	7440-28-0	EC447/VA	0.0000026	mg/dm².day		<0.0000038	<0.0000038	<0.0000043	----	----
Tin, total	7440-31-5	EC447/VA	0.0000026	mg/dm².day		<0.0000038	<0.0000038	<0.0000043	----	----
Titanium, total	7440-32-6	EC447/VA	0.00026	mg/dm².day		<0.00038	<0.00038	<0.00043	----	----
Uranium, total	7440-61-1	EC447/VA	0.0000026	mg/dm².day		<0.0000026	<0.0000026	<0.0000026	----	----
Vanadium, total	7440-62-2	EC447/VA	0.000026	mg/dm².day		<0.000038	<0.000038	<0.000043	----	----
Zinc, total	7440-66-6	EC447/VA	0.000079	mg/dm².day		<0.000113	<0.000113	<0.000129	----	----
Aluminum, total	7429-90-5	E447/VA	0.0030	mg		0.0517	0.0479	0.0185	----	----
Antimony, total	7440-36-0	E447/VA	0.000050	mg		<0.000050	<0.000050	<0.000050	----	----
Arsenic, total	7440-38-2	E447/VA	0.000050	mg		0.000092	<0.000050	<0.000050	----	----
Barium, total	7440-39-3	E447/VA	0.000050	mg		0.00200	0.00192	0.00120	----	----
Beryllium, total	7440-41-7	E447/VA	0.00025	mg		<0.00025	<0.00025	<0.00025	----	----
Bismuth, total	7440-69-9	E447/VA	0.00025	mg		<0.00025	<0.00025	<0.00025	----	----
Boron, total	7440-42-8	E447/VA	0.0050	mg		<0.0050	<0.0050	<0.0050	----	----
Cadmium, total	7440-43-9	E447/VA	0.000020	mg		<0.000020	<0.000020	<0.000020	----	----
Calcium, total	7440-70-2	E447/VA	0.010	mg		0.164	0.141	0.107	----	----
Chromium, total	7440-47-3	E447/VA	0.00025	mg		<0.00025	<0.00025	<0.00025	----	----
Cobalt, total	7440-48-4	E447/VA	0.000050	mg		<0.000050	<0.000050	<0.000050	----	----
Copper, total	7440-50-8	E447/VA	0.00050	mg		<0.00050	<0.00050	<0.00050	----	----
Iron, total	7439-89-6	E447/VA	0.015	mg		0.047	0.044	0.017	----	----
Lead, total	7439-92-1	E447/VA	0.000025	mg		0.000154	0.000028	<0.000025	----	----
Lithium, total	7439-93-2	E447/VA	0.0025	mg		<0.0025	<0.0025	<0.0025	----	----
Magnesium, total	7439-95-4	E447/VA	0.0025	mg		0.0271	0.0321	0.0164	----	----
Manganese, total	7439-96-5	E447/VA	0.00010	mg		0.0135	0.00925	0.00675	----	----
Mercury, total	7439-97-6	E516/VA	0.000025	mg		<0.000025	<0.000025	<0.000025	----	----
Molybdenum, total	7439-98-7	E447/VA	0.000025	mg		<0.000025	<0.000025	<0.000025	----	----
Nickel, total	7440-02-0	E447/VA	0.00025	mg		<0.00025	<0.00025	<0.00025	----	----
Phosphorus, total	7723-14-0	E447/VA	0.025	mg		0.038	0.029	<0.025	----	----

Analytical Results

Sub-Matrix: **Dustfall**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	4	19	24	----	----
					Client sampling date / time	04-Sep-2023 10:30	04-Sep-2023 14:40	06-Sep-2023 13:08	----	----
						VA23C3366-006	VA23C3366-007	VA23C3366-008	--------	--------
						Result	Result	Result	----	----
Total Metals										
Potassium, total	7440-09-7	E447/VA	0.025	mg		0.100	0.076	0.027	----	----
Selenium, total	7782-49-2	E447/VA	0.00050	mg		<0.00050	<0.00050	<0.00050	----	----
Silicon, total	7440-21-3	E447/VA	0.025	mg		0.062	0.064	<0.025	----	----
Silver, total	7440-22-4	E447/VA	0.0000050	mg		<0.0000050	<0.0000050	<0.0000050	----	----
Sodium, total	7440-23-5	E447/VA	0.025	mg		<0.025	<0.025	<0.025	----	----
Strontium, total	7440-24-6	E447/VA	0.000050	mg		0.000885	0.000907	0.000644	----	----
Thallium, total	7440-28-0	E447/VA	0.000050	mg		<0.000050	<0.000050	<0.000050	----	----
Tin, total	7440-31-5	E447/VA	0.000050	mg		<0.000050	<0.000050	<0.000050	----	----
Titanium, total	7440-32-6	E447/VA	0.0050	mg		<0.0050	<0.0050	<0.0050	----	----
Uranium, total	7440-61-1	E447/VA	0.0000050	mg		<0.0000050	<0.0000050	<0.0000050	----	----
Vanadium, total	7440-62-2	E447/VA	0.00050	mg		<0.00050	<0.00050	<0.00050	----	----
Zinc, total	7440-66-6	E447/VA	0.0015	mg		<0.0015	<0.0015	<0.0015	----	----

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

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

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C3366**	Page	: 1 of 10
Client	: **ERM Consultants Canada Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Jessica Lowey	Account Manager	: Amber Springer
Address	: 10th Floor, 1100 Melville St. Vancouver BC Canada V6E 4A6	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: 0700679-02-001 (Blackwater)	Date Samples Received	: 30-Sep-2023 11:00
PO	: 12970	Issue Date	: 18-Oct-2023 18:00
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: ERM/BW Gold SW (VA22-BWGL100-002/Q56205)		
No. of samples received	: 8		
No. of samples analysed	: 8		

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

Key

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

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

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

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- 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: **Air**

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
Field Tests : Dustfall Canister Area (cm2)										
HDPE dustfall canister (algecide) 32	EF001A	14-Sep-2023	----	----	----		18-Oct-2023	----	34 days	
Field Tests : Dustfall Canister Area (cm2)										
HDPE dustfall canister (algecide) 24	EF001A	06-Sep-2023	----	----	----		18-Oct-2023	----	42 days	
Field Tests : Dustfall Canister Area (cm2)										
HDPE dustfall canister (algecide) 19	EF001A	04-Sep-2023	----	----	----		18-Oct-2023	----	44 days	
Field Tests : Dustfall Canister Area (cm2)										
HDPE dustfall canister (algecide) 27	EF001A	04-Sep-2023	----	----	----		18-Oct-2023	----	44 days	
Field Tests : Dustfall Canister Area (cm2)										
HDPE dustfall canister (algecide) 4	EF001A	04-Sep-2023	----	----	----		18-Oct-2023	----	44 days	
Field Tests : Dustfall Canister Area (cm2)										
HDPE dustfall canister (algecide) 40	EF001A	04-Sep-2023	----	----	----		18-Oct-2023	----	44 days	
Field Tests : Dustfall Canister Area (cm2)										
HDPE dustfall canister (algecide) 6	EF001A	04-Sep-2023	----	----	----		18-Oct-2023	----	44 days	

Matrix: **Air**

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
Field Tests : Dustfall Canister Area (cm2)										
HDPE dustfall canister (algecide) 14	EF001A	03-Sep-2023	----	----	----		18-Oct-2023	----	45 days	
Field Tests : Dustfall Canister Sampling Days										
HDPE dustfall canister (algecide) 32	EF001B	14-Sep-2023	----	----	----		05-Oct-2023	----	21 days	
Field Tests : Dustfall Canister Sampling Days										
HDPE dustfall canister (algecide) 24	EF001B	06-Sep-2023	----	----	----		05-Oct-2023	----	29 days	
Field Tests : Dustfall Canister Sampling Days										
HDPE dustfall canister (algecide) 19	EF001B	04-Sep-2023	----	----	----		05-Oct-2023	----	31 days	
Field Tests : Dustfall Canister Sampling Days										
HDPE dustfall canister (algecide) 27	EF001B	04-Sep-2023	----	----	----		05-Oct-2023	----	31 days	
Field Tests : Dustfall Canister Sampling Days										
HDPE dustfall canister (algecide) 4	EF001B	04-Sep-2023	----	----	----		05-Oct-2023	----	31 days	
Field Tests : Dustfall Canister Sampling Days										
HDPE dustfall canister (algecide) 40	EF001B	04-Sep-2023	----	----	----		05-Oct-2023	----	31 days	
Field Tests : Dustfall Canister Sampling Days										
HDPE dustfall canister (algecide) 6	EF001B	04-Sep-2023	----	----	----		05-Oct-2023	----	31 days	
Field Tests : Dustfall Canister Sampling Days										
HDPE dustfall canister (algecide) 14	EF001B	03-Sep-2023	----	----	----		05-Oct-2023	----	32 days	

Matrix: **Air**

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
Particulates : Total Dustfalls by Gravimetry (mg)										
HDPE dustfall canister (algecide) 32	E880	14-Sep-2023	17-Oct-2023	----	----		18-Oct-2023	1 days	34 days	✓
Particulates : Total Dustfalls by Gravimetry (mg)										
HDPE dustfall canister (algecide) 24	E880	06-Sep-2023	17-Oct-2023	----	----		18-Oct-2023	1 days	42 days	✓
Particulates : Total Dustfalls by Gravimetry (mg)										
HDPE dustfall canister (algecide) 19	E880	04-Sep-2023	17-Oct-2023	----	----		18-Oct-2023	1 days	44 days	✓
Particulates : Total Dustfalls by Gravimetry (mg)										
HDPE dustfall canister (algecide) 27	E880	04-Sep-2023	17-Oct-2023	----	----		18-Oct-2023	1 days	44 days	✓
Particulates : Total Dustfalls by Gravimetry (mg)										
HDPE dustfall canister (algecide) 4	E880	04-Sep-2023	17-Oct-2023	----	----		18-Oct-2023	1 days	44 days	✓
Particulates : Total Dustfalls by Gravimetry (mg)										
HDPE dustfall canister (algecide) 40	E880	04-Sep-2023	17-Oct-2023	----	----		18-Oct-2023	1 days	44 days	✓
Particulates : Total Dustfalls by Gravimetry (mg)										
HDPE dustfall canister (algecide) 6	E880	04-Sep-2023	17-Oct-2023	----	----		18-Oct-2023	1 days	44 days	✓
Particulates : Total Dustfalls by Gravimetry (mg)										
HDPE dustfall canister (algecide) 14	E880	03-Sep-2023	17-Oct-2023	----	----		18-Oct-2023	1 days	45 days	✓
Total Metals : Total Mercury by CVAAS (Dustfall, mg)										
HDPE dustfall canister (algecide) 32	E516	14-Sep-2023	07-Oct-2023	180 days	23 days	✓	09-Oct-2023	180 days	2 days	✓

Matrix: **Air**

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 by CVAAS (Dustfall, mg)										
HDPE dustfall canister (algecide) 24	E516	06-Sep-2023	07-Oct-2023	180 days	31 days	✓	09-Oct-2023	180 days	2 days	✓
Total Metals : Total Mercury by CVAAS (Dustfall, mg)										
HDPE dustfall canister (algecide) 19	E516	04-Sep-2023	07-Oct-2023	180 days	33 days	✓	09-Oct-2023	180 days	2 days	✓
Total Metals : Total Mercury by CVAAS (Dustfall, mg)										
HDPE dustfall canister (algecide) 27	E516	04-Sep-2023	07-Oct-2023	180 days	33 days	✓	09-Oct-2023	180 days	2 days	✓
Total Metals : Total Mercury by CVAAS (Dustfall, mg)										
HDPE dustfall canister (algecide) 4	E516	04-Sep-2023	07-Oct-2023	180 days	33 days	✓	09-Oct-2023	180 days	2 days	✓
Total Metals : Total Mercury by CVAAS (Dustfall, mg)										
HDPE dustfall canister (algecide) 40	E516	04-Sep-2023	07-Oct-2023	180 days	33 days	✓	09-Oct-2023	180 days	2 days	✓
Total Metals : Total Mercury by CVAAS (Dustfall, mg)										
HDPE dustfall canister (algecide) 6	E516	04-Sep-2023	07-Oct-2023	180 days	33 days	✓	09-Oct-2023	180 days	2 days	✓
Total Metals : Total Mercury by CVAAS (Dustfall, mg)										
HDPE dustfall canister (algecide) 14	E516	03-Sep-2023	07-Oct-2023	180 days	34 days	✓	09-Oct-2023	180 days	2 days	✓
Total Metals : Total Metals by CRC ICPMS (Dustfall, mg)										
HDPE dustfall canister (algecide) 32	E447	14-Sep-2023	09-Oct-2023	180 days	25 days	✓	11-Oct-2023	180 days	27 days	✓
Total Metals : Total Metals by CRC ICPMS (Dustfall, mg)										
HDPE dustfall canister (algecide) 24	E447	06-Sep-2023	09-Oct-2023	180 days	33 days	✓	11-Oct-2023	180 days	35 days	✓

Matrix: **Air**

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 by CRC ICPMS (Dustfall, mg)										
HDPE dustfall canister (algecide) 19	E447	04-Sep-2023	09-Oct-2023	180 days	35 days	✓	11-Oct-2023	180 days	37 days	✓
Total Metals : Total Metals by CRC ICPMS (Dustfall, mg)										
HDPE dustfall canister (algecide) 27	E447	04-Sep-2023	09-Oct-2023	180 days	35 days	✓	11-Oct-2023	180 days	37 days	✓
Total Metals : Total Metals by CRC ICPMS (Dustfall, mg)										
HDPE dustfall canister (algecide) 4	E447	04-Sep-2023	09-Oct-2023	180 days	35 days	✓	11-Oct-2023	180 days	37 days	✓
Total Metals : Total Metals by CRC ICPMS (Dustfall, mg)										
HDPE dustfall canister (algecide) 40	E447	04-Sep-2023	09-Oct-2023	180 days	35 days	✓	11-Oct-2023	180 days	37 days	✓
Total Metals : Total Metals by CRC ICPMS (Dustfall, mg)										
HDPE dustfall canister (algecide) 6	E447	04-Sep-2023	09-Oct-2023	180 days	35 days	✓	11-Oct-2023	180 days	37 days	✓
Total Metals : Total Metals by CRC ICPMS (Dustfall, mg)										
HDPE dustfall canister (algecide) 14	E447	03-Sep-2023	09-Oct-2023	180 days	36 days	✓	11-Oct-2023	180 days	38 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: **Air**

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)							
Total Mercury by CVAAS (Dustfall, mg)	E516	1170949	1	13	7.6	5.0	✓
Total Metals by CRC ICPMS (Dustfall, mg)	E447	1170945	1	13	7.6	5.0	✓
Laboratory Control Samples (LCS)							
Total Dustfalls by Gravimetry (mg)	E880	1188100	1	10	10.0	5.0	✓
Total Mercury by CVAAS (Dustfall, mg)	E516	1170949	1	13	7.6	5.0	✓
Total Metals by CRC ICPMS (Dustfall, mg)	E447	1170945	1	13	7.6	5.0	✓
Method Blanks (MB)							
Total Dustfalls by Gravimetry (mg)	E880	1188100	1	10	10.0	5.0	✓
Total Mercury by CVAAS (Dustfall, mg)	E516	1170949	1	13	7.6	5.0	✓
Total Metals by CRC ICPMS (Dustfall, mg)	E447	1170945	1	13	7.6	5.0	✓
Matrix Spikes (MS)							
Total Mercury by CVAAS (Dustfall, mg)	E516	1170949	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
Total Metals by CRC ICPMS (Dustfall, mg)	E447 ALS Environmental - Vancouver	Air	EPA 6020B (mod)	This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). Instrumental analysis is by Collision/Reaction Cell ICPMS.
Total Mercury by CVAAS (Dustfall, mg)	E516 ALS Environmental - Vancouver	Air	EPA 245.7	This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). Instrumental analysis is by cold vapour atomic fluorescence spectrophotometry or atomic absorption spectrophotometry (EPA Method 245.7).
Total Dustfalls by Gravimetry (mg)	E880 ALS Environmental - Vancouver	Air	BC LAB MANUAL - PARTICULATE	A well-mixed sample is evaporated at 104°C to dryness. The residue, Total Dustfall, is measured gravimetrically.
Total Metals by ICPMS (Dustfall, mg/dm2.day)	EC447 ALS Environmental - Vancouver	Air	unit conversion	Convert mg/sample to mg/dm2.day by field information.
Total Mercury by CVAAS (Dustfall, mg/dm2.day)	EC516 ALS Environmental - Vancouver	Air	unit conversion	Convert mg/sample to mg/dm2.day based on field information.
Total Dustfalls by Gravimetry (mg/dm2.day)	EC880.A ALS Environmental - Vancouver	Air	BC LAB MANUAL - PARTICULATE	A well-mixed sample is evaporated at 104°C to dryness. The residue, Total Dustfall, is measured gravimetrically. The result is then calculated based on canister area and sampling time.
Dustfall Canister Area (cm2)	EF001A ALS Environmental - Vancouver	Air	Field data	Measurement of sampling area (cm²) of the opening of the dustfall canister is recorded.
Dustfall Canister Sampling Days	EF001B ALS Environmental - Vancouver	Air	N/A	Field dustfall information recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Total Metals Dustfall Screening and Digestion	EP447 ALS Environmental - Vancouver	Air	EPA 6020A	This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA).
Mercury Dustfall Preparation	EP516 ALS Environmental - Vancouver	Air	EPA 245.7	This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). Instrumental analysis is by cold vapour atomic fluorescence spectrophotometry or atomic absorption spectrophotometry (EPA Method 245.7).
Solids Dustfall Preparation	EP880 ALS Environmental - Vancouver	Air	BC LAB MANUAL - PARTICULATE	Dustfall sample preparation.

QUALITY CONTROL REPORT

Work Order	: **VA23C3366**	Page	: 1 of 8
Client	: ERM Consultants Canada Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Jessica Lowey	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: 0700679-02-001 (Blackwater)	Date Samples Received	: 30-Sep-2023 11:00
PO	: 12970	Date Analysis Commenced	: 05-Oct-2023
C-O-C number	: ----	Issue Date	: 18-Oct-2023 18:00
Sampler	: ---- ----		
Site	: ----		
Quote number	: ERM/BW Gold SW (VA22-BWGL100-002/Q56205)		
No. of samples received	: 8		
No. of samples analysed	: 8		

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

This Quality Control Report contains the following information:

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

Signatories

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

Signatories	*Position*	*Laboratory Department*
Angela Ren	Team Leader - Metals	Vancouver Metals, Burnaby, British Columbia
Cecilia Zhang	Account Manager Assistant	Vancouver Administration, Burnaby, British Columbia
Cindy Tang	Team Leader - Inorganics	Vancouver Inorganics, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia
Kinny Wu	Lab 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: **Air**

					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: 1170945)											
VA23C3328-001	Anonymous	Aluminum, total	7429-90-5	E447	0.0030	mg	0.0297	0.0332	11.3%	40%	----
		Antimony, total	7440-36-0	E447	0.000050	mg	<0.000050	<0.000050	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E447	0.000050	mg	0.000221	0.000195	0.000026	Diff <2x LOR	----
		Barium, total	7440-39-3	E447	0.000050	mg	0.00199	0.00205	3.20%	40%	----
		Beryllium, total	7440-41-7	E447	0.00025	mg	<0.00025	<0.00025	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E447	0.00025	mg	<0.00025	<0.00025	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E447	0.0050	mg	<0.0050	<0.0050	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E447	0.000020	mg	<0.000020	<0.000020	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E447	0.010	mg	0.192	0.192	0.138%	30%	----
		Chromium, total	7440-47-3	E447	0.00025	mg	<0.00025	<0.00025	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E447	0.000050	mg	<0.000050	<0.000050	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E447	0.00050	mg	<0.00050	<0.00050	0	Diff <2x LOR	----
		Iron, total	7439-89-6	E447	0.015	mg	0.040	0.048	0.008	Diff <2x LOR	----
		Lead, total	7439-92-1	E447	0.000025	mg	0.000059	0.000069	0.000010	Diff <2x LOR	----
		Lithium, total	7439-93-2	E447	0.0025	mg	<0.0025	<0.0025	0	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E447	0.0025	mg	0.0363	0.0381	4.72%	30%	----
		Manganese, total	7439-96-5	E447	0.00010	mg	0.0196	0.0199	1.38%	30%	----
		Molybdenum, total	7439-98-7	E447	0.000025	mg	<0.000025	<0.000025	0	Diff <2x LOR	----
		Nickel, total	7440-02-0	E447	0.00025	mg	<0.00025	<0.00025	0	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E447	0.025	mg	0.027	0.026	0.0008	Diff <2x LOR	----
		Potassium, total	7440-09-7	E447	0.025	mg	0.158	0.158	0.0887%	40%	----
		Selenium, total	7782-49-2	E447	0.00050	mg	<0.00050	<0.00050	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E447	0.025	mg	0.037	0.044	0.007	Diff <2x LOR	----
		Silver, total	7440-22-4	E447	0.0000050	mg	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E447	0.025	mg	<0.025	<0.025	0	Diff <2x LOR	----
		Strontium, total	7440-24-6	E447	0.000050	mg	0.00115	0.00117	1.20%	40%	----
		Thallium, total	7440-28-0	E447	0.000050	mg	<0.000050	<0.000050	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E447	0.000050	mg	<0.000050	<0.000050	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E447	0.0050	mg	<0.0050	<0.0050	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E447	0.0000050	mg	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Sub-Matrix: **Air**

					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: 1170945) - continued											
VA23C3328-001	Anonymous	Vanadium, total	7440-62-2	E447	0.00050	mg	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E447	0.0015	mg	0.0019	0.0019	0.00004	Diff <2x LOR	----
Total Metals (QC Lot: 1170949)											
VA23C3328-001	Anonymous	Mercury, total	7439-97-6	E516	0.000025	mg	<0.000025	<0.000025	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: **Air**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Particulates (QCLot: 1188100)						
Dustfall, total	----	E880	1.9	mg	<1.90	----
Total Metals (QCLot: 1170945)						
Aluminum, total	7429-90-5	E447	0.003	mg	<0.0030	----
Antimony, total	7440-36-0	E447	0.00005	mg	<0.000050	----
Arsenic, total	7440-38-2	E447	0.00005	mg	<0.000050	----
Barium, total	7440-39-3	E447	0.00005	mg	<0.000050	----
Beryllium, total	7440-41-7	E447	0.00025	mg	<0.00025	----
Bismuth, total	7440-69-9	E447	0.00025	mg	<0.00025	----
Boron, total	7440-42-8	E447	0.005	mg	<0.0050	----
Cadmium, total	7440-43-9	E447	0.00002	mg	<0.000020	----
Calcium, total	7440-70-2	E447	0.01	mg	<0.010	----
Chromium, total	7440-47-3	E447	0.00025	mg	<0.00025	----
Cobalt, total	7440-48-4	E447	0.00005	mg	<0.000050	----
Copper, total	7440-50-8	E447	0.0005	mg	<0.00050	----
Iron, total	7439-89-6	E447	0.015	mg	<0.015	----
Lead, total	7439-92-1	E447	0.000025	mg	<0.000025	----
Lithium, total	7439-93-2	E447	0.0025	mg	<0.0025	----
Magnesium, total	7439-95-4	E447	0.0025	mg	<0.0025	----
Manganese, total	7439-96-5	E447	0.0001	mg	<0.00010	----
Molybdenum, total	7439-98-7	E447	0.000025	mg	<0.000025	----
Nickel, total	7440-02-0	E447	0.00025	mg	<0.00025	----
Phosphorus, total	7723-14-0	E447	0.025	mg	<0.025	----
Potassium, total	7440-09-7	E447	0.025	mg	<0.025	----
Selenium, total	7782-49-2	E447	0.0005	mg	<0.00050	----
Silicon, total	7440-21-3	E447	0.025	mg	<0.025	----
Silver, total	7440-22-4	E447	0.000005	mg	<0.0000050	----
Sodium, total	7440-23-5	E447	0.025	mg	<0.025	----
Strontium, total	7440-24-6	E447	0.00005	mg	<0.000050	----
Thallium, total	7440-28-0	E447	0.00005	mg	<0.000050	----
Tin, total	7440-31-5	E447	0.00005	mg	<0.000050	----
Titanium, total	7440-32-6	E447	0.005	mg	<0.0050	----
Uranium, total	7440-61-1	E447	0.000005	mg	<0.0000050	----

Sub-Matrix: **Air**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1170945) - continued						
Vanadium, total	7440-62-2	E447	0.0005	mg	<0.00050	----
Zinc, total	7440-66-6	E447	0.0015	mg	<0.0015	----
Total Metals (QCLot: 1170949)						
Mercury, total	7439-97-6	E516	0.000025	mg	<0.000025	----

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: **Air**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Particulates (QCLot: 1188100)									
Dustfall, total	----	E880	1.9	mg	230 mg	99.9	85.0	115	----
Total Metals (QCLot: 1170945)									
Aluminum, total	7429-90-5	E447	0.003	mg	1 mg	107	80.0	120	----
Antimony, total	7440-36-0	E447	0.00005	mg	0.5 mg	109	80.0	120	----
Arsenic, total	7440-38-2	E447	0.00005	mg	0.5 mg	112	80.0	120	----
Barium, total	7440-39-3	E447	0.00005	mg	0.125 mg	104	80.0	120	----
Beryllium, total	7440-41-7	E447	0.00025	mg	0.05 mg	106	80.0	120	----
Bismuth, total	7440-69-9	E447	0.00025	mg	0.5 mg	105	80.0	120	----
Boron, total	7440-42-8	E447	0.005	mg	0.5 mg	99.6	80.0	120	----
Cadmium, total	7440-43-9	E447	0.00002	mg	0.05 mg	102	80.0	120	----
Calcium, total	7440-70-2	E447	0.01	mg	25 mg	107	80.0	120	----
Chromium, total	7440-47-3	E447	0.00025	mg	0.125 mg	103	80.0	120	----
Cobalt, total	7440-48-4	E447	0.00005	mg	0.125 mg	102	80.0	120	----
Copper, total	7440-50-8	E447	0.0005	mg	0.125 mg	101	80.0	120	----
Iron, total	7439-89-6	E447	0.015	mg	0.5 mg	101	80.0	120	----
Lead, total	7439-92-1	E447	0.000025	mg	0.25 mg	100	80.0	120	----
Lithium, total	7439-93-2	E447	0.0025	mg	0.125 mg	105	80.0	120	----
Magnesium, total	7439-95-4	E447	0.0025	mg	25 mg	108	80.0	120	----
Manganese, total	7439-96-5	E447	0.0001	mg	0.125 mg	104	80.0	120	----
Molybdenum, total	7439-98-7	E447	0.000025	mg	0.125 mg	107	80.0	120	----
Nickel, total	7440-02-0	E447	0.00025	mg	0.25 mg	102	80.0	120	----
Phosphorus, total	7723-14-0	E447	0.025	mg	5 mg	101	80.0	120	----
Potassium, total	7440-09-7	E447	0.025	mg	25 mg	108	80.0	120	----
Selenium, total	7782-49-2	E447	0.0005	mg	0.5 mg	105	80.0	120	----
Silicon, total	7440-21-3	E447	0.025	mg	5 mg	111	80.0	120	----
Silver, total	7440-22-4	E447	0.000005	mg	0.05 mg	94.5	80.0	120	----
Sodium, total	7440-23-5	E447	0.025	mg	25 mg	104	80.0	120	----
Strontium, total	7440-24-6	E447	0.00005	mg	0.125 mg	103	80.0	120	----
Thallium, total	7440-28-0	E447	0.00005	mg	0.5 mg	94.0	80.0	120	----
Tin, total	7440-31-5	E447	0.00005	mg	0.25 mg	105	80.0	120	----
Titanium, total	7440-32-6	E447	0.005	mg	0.125 mg	106	80.0	120	----
Uranium, total	7440-61-1	E447	0.000005	mg	0.0025 mg	97.1	80.0	120	----

Sub-Matrix: **Air**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1170945) - continued									
Vanadium, total	7440-62-2	E447	0.0005	mg	0.25 mg	105	80.0	120	----
Zinc, total	7440-66-6	E447	0.0015	mg	0.25 mg	98.3	80.0	120	----
Total Metals (QCLot: 1170949)									
Mercury, total	7439-97-6	E516	0.000025	mg	0.001 mg	110	70.0	130	----

Matrix Spike (MS) Report

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

Sub-Matrix: **Air**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1170949)										
VA23C3328-002	Anonymous	Mercury, total	7439-97-6	E516	0.000336 mg	0.00034 mg	98.8	70.0	130	----

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Blackwater Gold Ltd.
Contact:	Mark Warbanski

Report Format / Distribution

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

Email 1 or Fax	jessica.lowey@erm.com
Email 2	kimberly.san@erm.com
Email 3	amuttray@entiaenviro.com

Invoice Distribution

Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	kimberly.san@erm.com
Email 2	patty.vadnais@erm.com

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

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

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

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

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

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

Project Information

ALS Account # / Quote #:	VA23-ERMO100-018
Job #:	0700679-02-001 (Blackwater)
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)

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

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer Sampler:

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	As per Quote VA23-ERMO100-018	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	14	4-Sep-23	13:39	DUSTFALL	2	R		
	40	4-Sep-23	13:39	DUSTFALL	2	R		
	27	4-Sep-23	15:40	DUSTFALL	2	R		
	6	4-Sep-23	16:00	DUSTFALL	2	R		
	32	14-Sep-23	8:45	DUSTFALL	2	R		
	4	4-Sep-23	10:30	DUSTFALL	2	R		
	19	4-Sep-23	14:40	DUSTFALL	2	R		
	24	6-Sep-23	13:06	DUSTFALL	2	R		
						R		
						R		
						R		
						R		

Environmental Division
Vancouver
Work Order Reference
VA23C3366

Telephone : +1 604 253 4188

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

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

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

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

Analysis as per quote VA23-ERMO100-018. Do not include arsenic speciation for tissue

SAMPLE CONDITION AS RECEIVED (lab use only)

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

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
					8	8	6

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:

INITIAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:
JC	29-9-23	11am

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2018 FRONT

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

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

NOTE: Page 1 contains start dates/times, this page shows when the dustfall traps were retrieved

Sample Identification and/or Coordinates (This description will appear on the report)	**End Date** (dd-mmm-yy)	End Time (hh:mm)
14	26-Sep-23	15:40
40	24-Sep-23	09:00
27	24-Sep-23	10:00
6	26-Sep-23	08:30
32	26-Sep-23	08:45
4	27-Sep-23	08:45
19	27-Sep-23	08:45
24	26-Sep-23	08:50

Appendix A.2 Soil and Plant and Berry Tissues Quality Results, 2023

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C2014**	Page	: 1 of 47
Client	: **ERM Consultants Canada Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Kimberly San	Account Manager	: Amber Springer
Address	: 10th Floor, 1100 Melville St. Vancouver BC Canada V6E 4A6	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: 604 689 9460	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 14-Sep-2023 09:30
PO	: 12970	Date Analysis Commenced	: 21-Sep-2023
C-O-C number	: ----	Issue Date	: 01-Nov-2023 11:32
Sampler	: KB, SS		
Site	: ----		
Quote number	: VA23-BWGL100-005		
No. of samples received	: 73		
No. of samples analysed	: 73		

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*
Alex Thornton	Analyst	Metals, Burnaby, British Columbia
Hedy Lai	Team Leader - Inorganics	Inorganics, Saskatoon, Saskatchewan
Hedy Lai	Team Leader - Inorganics	Sask Soils, Saskatoon, Saskatchewan
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Ophelia Chiu	Department Manager - Organics	Organics, Burnaby, British Columbia
Owen Cheng		Metals, Burnaby, British Columbia
Ragini Saini	Lab Assistant	Metals, Burnaby, British Columbia
Salimah Khimani	Lab Assistant	Metals, Burnaby, British Columbia
Sam Silveira	Lab Assistant	Metals, Burnaby, British Columbia
Tony Nguyen	Analyst	Metals, Burnaby, British Columbia
Xihua Yao	Laboratory Analyst	Sask Soils, Saskatoon, Saskatchewan

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
%	percent
mg/kg	milligrams per kilogram
mg/kg wwt	milligrams per kilogram wet weight
pH units	pH units

<: less than.

>: greater than.

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

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

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

Workorder Comments

PSAL: Sample 020, 026, 037, 040, 059, 064 : Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.

Sample Comments

Sample	Client Id	*Comment*
VA23C2014-005	018-SOIL	Sample(s) XXX: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.
VA23C2014-020	029-SOIL	PSAL:Sample 020,026,037,040:Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.
VA23C2014-059	001-SOIL	PSAL:Sample059,064: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.
VA23C2014-062	014-SOIL	PSAL:Sample059,064: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.

VA23C2014-064	024-SOIL	PSAL:Sample059,064: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.
VA23C2014-068	DUP2-SOIL	PSAL:Sample059,064: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.
VA23C2014-069	DUP3-SOIL	PSAL:Sample059,064: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.
VA23C2014-070	DUP4-SOIL	PSAL:Sample059,064: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.

Qualifiers

Qualifier	*Description*
DLM	*Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).*
FR10	*As per applicable reference method(s), soil:water ratio for Fixed Ratio Leach was modified to 1:10 due to high soil organic content.*
FR20	*As per applicable reference method(s), soil:water ratio for Fixed Ratio Leach was modified to 1:20 due to high soil organic content.*
FR4	*As per applicable reference method(s), soil:water ratio for Fixed Ratio Leach was modified to 1:4 due to high soil organic content.*
FR8	*As per applicable reference method(s), soil:water ratio for Fixed Ratio Leach was modified to 1:8 due to high soil organic content.*

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	021-SEDGE	021-WILL	018-WILL	018-SEDGE	010-SEDGE
					Client sampling date / time	08-Sep-2023 14:07	08-Sep-2023 14:07	08-Sep-2023 12:17	08-Sep-2023 12:17	08-Sep-2023 09:28
						VA23C2014-002	VA23C2014-003	VA23C2014-006	VA23C2014-007	VA23C2014-009
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		58.8	61.1	58.6	69.4	66.5
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		20.4	37.9	75.4	19.0	27.8
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		8.42	14.7	31.2	5.80	9.32
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		0.0021	0.0020	0.0025	<0.0020	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.020	0.023	0.052	0.038	0.054
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0085	0.0089	0.0217	0.0118	0.0181
Barium	7440-39-3	E440/VA	0.050	mg/kg		51.9	10.5	27.4	41.5	57.5
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		21.4	4.07	11.3	12.7	19.2
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	0.0022
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron	7440-42-8	E440/VA	1.0	mg/kg		5.1	28.2	43.4	9.3	3.6
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		2.12	11.0	18.0	2.86	1.22
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0345	0.140	1.84	0.0054	0.0258
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0142	0.0546	0.760	0.0016	0.0086
Calcium	7440-70-2	E440/VA	20	mg/kg		5310	19900	21600	4110	5340
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		2180	7750	8930	1260	1790
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0720	0.0174	0.0286	0.0524	0.252
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0297	0.0068	0.0118	0.0160	0.0845
Chromium	7440-47-3	E440/VA	0.050	mg/kg		<0.050	<0.050	0.116	0.070	0.057
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.017	0.019	0.048	0.022	0.019
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.055	0.381	0.586	0.022	0.114
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0225	0.148	0.242	0.0068	0.0382
Copper	7440-50-8	E440/VA	0.10	mg/kg		5.13	2.51	3.96	1.95	1.68
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		2.11	0.978	1.64	0.598	0.561
Iron	7439-89-6	E440/VA	3.0	mg/kg		64.9	111	162	70.6	92.4

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	021-SEDGE	021-WILL	018-WILL	018-SEDGE	010-SEDGE
					Client sampling date / time	08-Sep-2023 14:07	08-Sep-2023 14:07	08-Sep-2023 12:17	08-Sep-2023 12:17	08-Sep-2023 09:28
						VA23C2014-002	VA23C2014-003	VA23C2014-006	VA23C2014-007	VA23C2014-009
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		26.7	43.0	66.9	21.6	30.9
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.043	0.064	0.063	0.035	0.043
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0176	0.0250	0.0261	0.0107	0.0144
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1680	5300	2310	1690	1700
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		693	2060	956	518	568
Manganese	7439-96-5	E440/VA	0.050	mg/kg		566	219	261	274	506
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		233	85.2	108	84.0	170
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0071	0.0172	0.0170	0.0117	0.0086
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0029	0.0067	0.0070	0.0036	0.0029
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		1.62	0.974	0.625	0.831	3.99
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.668	0.379	0.259	0.254	1.33
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	1.32	<0.20	0.29
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		0.068	0.048	0.546	<0.040	0.097
Phosphorus	7723-14-0	E440/VA	10	mg/kg		1790	1610	2380	1970	1680
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		736	627	985	602	563
Potassium	7440-09-7	E440/VA	20	mg/kg		17200	11700	9250	23300	18900
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		7090	4540	3830	7120	6340
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		9.70	5.04	5.82	12.0	37.5
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		4.00	1.96	2.41	3.67	12.6
Selenium	7782-49-2	E440/VA	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		<0.010	<0.010	<0.010	<0.010	<0.010
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg		0.0088	0.0117	0.0052	<0.0050	0.0059
Silver	7440-22-4	E440A.Ag/VA	0.0010	mg/kg wwt		0.0036	0.0046	0.0021	0.0013	0.0020
Sodium	7440-23-5	E440/VA	20	mg/kg		20	<20	<20	<20	<20
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		8.3	<4.0	4.5	<4.0	4.6
Strontium	7440-24-6	E440/VA	0.050	mg/kg		32.6	95.7	142	35.0	57.1
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		13.4	37.2	59.0	10.7	19.1
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	021-SEDGE	021-WILL	018-WILL	018-SEDGE	010-SEDGE
					Client sampling date / time	08-Sep-2023 14:07	08-Sep-2023 14:07	08-Sep-2023 12:17	08-Sep-2023 12:17	08-Sep-2023 09:28
						VA23C2014-002	VA23C2014-003	VA23C2014-006	VA23C2014-007	VA23C2014-009
						Result	Result	Result	Result	Result
Metals										
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	<0.0020	0.0044	0.0090
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00059	<0.00040	0.00063	0.00134	0.00301
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.13	<0.10	<0.10	0.26	0.22
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.055	0.030	0.026	0.081	0.073
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg		1.06	2.16	5.09	1.04	1.38
Titanium	7440-32-6	E440A.Ti/VA	0.050	mg/kg wwt		0.436	0.839	2.11	0.320	0.463
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	0.0024	<0.0020	<0.0020
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	0.00056	0.00098	<0.00040	0.00064
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	<0.10	0.25	<0.10	<0.10
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	0.035	0.103	<0.020	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg		28.2	42.0	95.4	23.8	23.6
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		11.6	16.3	39.5	7.28	7.88
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	010-WILL	002-LAB	002-WILL	013-WILL	005-LAB
					Client sampling date / time	08-Sep-2023 09:28	07-Sep-2023 08:27	07-Sep-2023 08:27	07-Sep-2023 14:38	07-Sep-2023 10:51
						VA23C2014-010	VA23C2014-012	VA23C2014-013	VA23C2014-015	VA23C2014-018
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		75.3	55.0	63.8	64.7	54.2
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		34.0	58.8	48.2	55.5	39.8
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		8.41	26.5	17.4	19.6	18.2
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	0.0033	0.0026	<0.0020	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.023	0.105	0.114	0.033	0.029
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0057	0.0472	0.0415	0.0116	0.0131
Barium	7440-39-3	E440/VA	0.050	mg/kg		20.9	139	59.6	41.6	76.1
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		5.17	62.4	21.6	14.7	34.8
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		0.025	<0.010	<0.010	<0.010	<0.010
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		0.0062	<0.0020	<0.0020	0.0033	<0.0020
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron	7440-42-8	E440/VA	1.0	mg/kg		5.5	30.2	66.0	23.9	20.8
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		1.36	13.6	23.9	8.45	9.51
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.112	0.0062	1.77	2.54	0.0109
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0277	0.0028	0.640	0.896	0.0050
Calcium	7440-70-2	E440/VA	20	mg/kg		14300	5550	26900	19500	5460
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		3530	2500	9760	6870	2500
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.173	0.0238	0.0144	0.0088	0.0545
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0428	0.0107	0.0052	0.0031	0.0250
Chromium	7440-47-3	E440/VA	0.050	mg/kg		<0.050	0.070	0.061	0.061	0.052
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		<0.010	0.032	0.022	0.021	0.024
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		1.52	0.046	1.90	0.821	<0.020
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.377	0.0206	0.687	0.290	0.0088
Copper	7440-50-8	E440/VA	0.10	mg/kg		2.27	4.63	3.00	2.48	3.30
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.560	2.08	1.08	0.875	1.51
Iron	7439-89-6	E440/VA	3.0	mg/kg		57.2	101	108	78.8	64.3
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		14.1	45.5	39.1	27.8	29.5

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	010-WILL	002-LAB	002-WILL	013-WILL	005-LAB
					Client sampling date / time	08-Sep-2023 09:28	07-Sep-2023 08:27	07-Sep-2023 08:27	07-Sep-2023 14:38	07-Sep-2023 10:51
						VA23C2014-010	VA23C2014-012	VA23C2014-013	VA23C2014-015	VA23C2014-018
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.035	0.084	0.080	0.057	0.024
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0086	0.0378	0.0289	0.0202	0.0112
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		3410	823	2040	2540	1260
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		843	371	738	895	578
Manganese	7439-96-5	E440/VA	0.050	mg/kg		318	1610	374	355	466
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		78.6	724	135	125	214
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0158	0.0108	0.0157	0.0134	0.0079
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0039	0.0049	0.0057	0.0047	0.0036
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		1.45	1.65	1.82	0.954	0.176
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.359	0.741	0.659	0.337	0.0806
Nickel	7440-02-0	E440/VA	0.20	mg/kg		0.33	0.29	0.54	2.07	<0.20
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		0.082	0.131	0.197	0.732	0.044
Phosphorus	7723-14-0	E440/VA	10	mg/kg		2540	1710	4130	4020	1660
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		626	772	1490	1420	763
Potassium	7440-09-7	E440/VA	20	mg/kg		23200	5870	14000	17000	6770
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		5740	2640	5060	5980	3100
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		50.9	4.42	2.87	4.13	9.87
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		12.6	1.99	1.04	1.46	4.52
Selenium	7782-49-2	E440/VA	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		<0.010	<0.010	<0.010	<0.010	<0.010
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg		0.0069	0.0097	<0.0050	0.0073	<0.0050
Silver	7440-22-4	E440A.Ag/VA	0.0010	mg/kg wwt		0.0017	0.0044	0.0017	0.0026	0.0018
Sodium	7440-23-5	E440/VA	20	mg/kg		<20	<20	<20	<20	<20
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		<4.0	<4.0	<4.0	<4.0	<4.0
Strontium	7440-24-6	E440/VA	0.050	mg/kg		160	24.8	218	156	27.0
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		39.5	11.2	78.9	55.3	12.4
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	<0.020
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	<0.0040	<0.0040

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	010-WILL	002-LAB	002-WILL	013-WILL	005-LAB
					Client sampling date / time	08-Sep-2023 09:28	07-Sep-2023 08:27	07-Sep-2023 08:27	07-Sep-2023 14:38	07-Sep-2023 10:51
						VA23C2014-010	VA23C2014-012	VA23C2014-013	VA23C2014-015	VA23C2014-018
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0074	<0.0020	<0.0020	<0.0020	<0.0020
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00183	0.00069	<0.00040	<0.00040	<0.00040
Tin	7440-31-5	E440/VA	0.10	mg/kg		<0.10	<0.10	<0.10	<0.10	<0.10
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		<0.020	<0.020	<0.020	<0.020	<0.020
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg		1.33	3.22	1.08	2.98	1.69
Titanium	7440-32-6	E440A.Ti/VA	0.050	mg/kg wwt		0.328	1.45	0.393	1.05	0.774
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	0.0023	0.0022	<0.0020	0.0044
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	0.00104	0.00078	0.00065	0.00202
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	0.16	0.13	0.12	<0.10
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	0.070	0.048	0.041	0.036
Zinc	7440-66-6	E440/VA	0.50	mg/kg		64.7	25.3	109	42.4	22.0
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		16.0	11.4	39.6	15.0	10.0
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	005-WILL	029-SEDGE	029-WILL	029-LAB	022-WILL
					Client sampling date / time	07-Sep-2023 10:51	06-Sep-2023 09:00	06-Sep-2023 09:00	06-Sep-2023 09:00	05-Sep-2023 15:09
						VA23C2014-019	VA23C2014-021	VA23C2014-022	VA23C2014-023	VA23C2014-025
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		65.5	63.6	69.0	61.0	67.4
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		21.7	20.4	28.9	38.1	105
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		7.49	7.44	8.97	14.9	34.1
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.081	<0.020	<0.020	<0.020	0.059
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0278	0.0054	0.0056	0.0068	0.0192
Barium	7440-39-3	E440/VA	0.050	mg/kg		14.4	85.5	12.6	91.2	155
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		4.95	31.1	3.91	35.6	50.7
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	0.046
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	0.0149
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron	7440-42-8	E440/VA	1.0	mg/kg		13.4	6.0	28.8	32.9	50.3
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		4.61	2.17	8.92	12.8	16.4
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		1.06	0.0135	0.210	<0.0050	7.07
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.366	0.0049	0.0652	0.0016	2.30
Calcium	7440-70-2	E440/VA	20	mg/kg		25600	7790	22600	7170	20200
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		8840	2830	6990	2800	6570
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0317	0.0783	0.0156	0.0141	0.0159
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0109	0.0285	0.0048	0.0055	0.0052
Chromium	7440-47-3	E440/VA	0.050	mg/kg		<0.050	0.165	<0.050	0.061	0.082
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.016	0.060	0.013	0.024	0.027
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.725	0.037	0.772	0.020	1.64
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.250	0.0136	0.239	0.0078	0.536
Copper	7440-50-8	E440/VA	0.10	mg/kg		3.73	1.98	1.32	2.67	3.99
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		1.29	0.720	0.408	1.04	1.30
Iron	7439-89-6	E440/VA	3.0	mg/kg		62.3	61.0	58.2	55.2	98.1
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		21.5	22.2	18.0	21.5	32.0

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	005-WILL	029-SEDGE	029-WILL	029-LAB	022-WILL
					Client sampling date / time	07-Sep-2023 10:51	06-Sep-2023 09:00	06-Sep-2023 09:00	06-Sep-2023 09:00	05-Sep-2023 15:09
						VA23C2014-019	VA23C2014-021	VA23C2014-022	VA23C2014-023	VA23C2014-025
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.028	0.025	0.032	0.027	0.124
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0096	0.0090	0.0100	0.0105	0.0404
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		2740	1690	2970	1220	2650
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		946	616	920	474	863
Manganese	7439-96-5	E440/VA	0.050	mg/kg		226	894	243	1810	673
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		78.1	326	75.3	706	219
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0150	0.0078	0.0132	0.0119	0.0118
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0052	0.0028	0.0041	0.0046	0.0039
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.989	0.821	0.741	0.081	0.195
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.341	0.299	0.230	0.0318	0.0635
Nickel	7440-02-0	E440/VA	0.20	mg/kg		0.69	<0.20	<0.20	<0.20	2.05
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		0.237	0.042	<0.040	<0.040	0.669
Phosphorus	7723-14-0	E440/VA	10	mg/kg		1450	1480	2850	1500	4920
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		499	538	884	584	1600
Potassium	7440-09-7	E440/VA	20	mg/kg		14200	12000	12600	5670	18200
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		4910	4360	3920	2210	5940
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		11.9	3.55	2.46	2.10	14.3
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		4.12	1.29	0.763	0.821	4.67
Selenium	7782-49-2	E440/VA	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		<0.010	0.016	<0.010	<0.010	<0.010
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg		0.0111	<0.0050	0.0056	0.0052	0.0083
Silver	7440-22-4	E440A.Ag/VA	0.0010	mg/kg wwt		0.0038	0.0017	0.0017	0.0020	0.0027
Sodium	7440-23-5	E440/VA	20	mg/kg		<20	27	<20	<20	<20
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		<4.0	9.7	<4.0	<4.0	<4.0
Strontium	7440-24-6	E440/VA	0.050	mg/kg		139	52.7	113	26.0	298
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		48.1	19.2	35.2	10.2	97.2
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	<0.020
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	<0.0040	<0.0040

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	005-WILL	029-SEDGE	029-WILL	029-LAB	022-WILL
					Client sampling date / time	07-Sep-2023 10:51	06-Sep-2023 09:00	06-Sep-2023 09:00	06-Sep-2023 09:00	05-Sep-2023 15:09
						VA23C2014-019	VA23C2014-021	VA23C2014-022	VA23C2014-023	VA23C2014-025
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0027	<0.0020	<0.0020	<0.0020	0.0039
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00095	0.00073	<0.00040	<0.00040	0.00127
Tin	7440-31-5	E440/VA	0.10	mg/kg		<0.10	<0.10	<0.10	<0.10	<0.10
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		<0.020	0.027	<0.020	<0.020	<0.020
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg		1.48	1.19	1.56	2.07	3.09
Titanium	7440-32-6	E440A.Ti/VA	0.050	mg/kg wwt		0.512	0.433	0.484	0.809	1.01
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	<0.0020	<0.0020	0.0025
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	<0.00040	<0.00040	0.00042	0.00083
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	<0.10	<0.10	<0.10	0.13
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.021	<0.020	0.022	0.036	0.043
Zinc	7440-66-6	E440/VA	0.50	mg/kg		53.8	67.6	184	30.5	222
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		18.6	24.6	57.2	11.9	72.3
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	009-WILL	009-LAB	009-SEDGE	008-WILL	008-LAB
					Client sampling date / time	05-Sep-2023 13:24	05-Sep-2023 13:24	05-Sep-2023 13:24	05-Sep-2023 10:33	05-Sep-2023 10:33
						VA23C2014-027	VA23C2014-028	VA23C2014-029	VA23C2014-031	VA23C2014-032
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		66.4	51.1	52.5	63.7	51.2
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		46.3	39.0	21.4	70.2	56.9
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		15.6	19.1	10.2	25.5	27.8
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	0.0020	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.041	<0.020	0.042	0.069	<0.020
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0139	0.0040	0.0199	0.0251	0.0078
Barium	7440-39-3	E440/VA	0.050	mg/kg		27.2	76.1	72.4	252	93.4
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		9.16	37.2	34.4	91.7	45.6
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		0.018	<0.010	<0.010	0.020	<0.010
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		0.0059	<0.0020	<0.0020	0.0072	<0.0020
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron	7440-42-8	E440/VA	1.0	mg/kg		5.9	6.2	5.9	27.5	17.4
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		1.99	3.03	2.81	10.0	8.51
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.974	0.0095	0.0496	12.9	0.0428
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.327	0.0046	0.0236	4.68	0.0209
Calcium	7440-70-2	E440/VA	20	mg/kg		15000	5100	5090	28300	5860
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		5050	2500	2420	10300	2860
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.162	0.152	0.737	0.0266	0.0455
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0545	0.0742	0.350	0.0096	0.0222
Chromium	7440-47-3	E440/VA	0.050	mg/kg		<0.050	0.135	<0.050	<0.050	<0.050
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.015	0.066	0.022	0.017	0.017
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		1.68	0.028	0.103	2.32	0.026
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.565	0.0139	0.0488	0.844	0.0125
Copper	7440-50-8	E440/VA	0.10	mg/kg		2.29	2.76	6.30	4.15	2.73
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.769	1.35	2.99	1.51	1.33
Iron	7439-89-6	E440/VA	3.0	mg/kg		76.0	45.9	124	85.8	39.8
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		25.6	22.5	59.1	31.2	19.4

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	009-WILL	009-LAB	009-SEDGE	008-WILL	008-LAB
					Client sampling date / time	05-Sep-2023 13:24	05-Sep-2023 13:24	05-Sep-2023 13:24	05-Sep-2023 10:33	05-Sep-2023 10:33
						VA23C2014-027	VA23C2014-028	VA23C2014-029	VA23C2014-031	VA23C2014-032
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.091	0.026	0.038	0.076	0.025
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0305	0.0126	0.0183	0.0278	0.0123
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		2870	1080	1910	3810	1050
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		963	531	908	1380	515
Manganese	7439-96-5	E440/VA	0.050	mg/kg		921	1260	1470	790	1810
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		310	618	700	287	885
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0142	0.0116	0.0099	0.0140	0.0087
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0048	0.0056	0.0047	0.0051	0.0042
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.756	0.198	0.797	1.02	0.789
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.254	0.0968	0.378	0.368	0.386
Nickel	7440-02-0	E440/VA	0.20	mg/kg		0.62	0.37	0.38	2.08	0.22
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		0.208	0.181	0.179	0.756	0.108
Phosphorus	7723-14-0	E440/VA	10	mg/kg		2680	1710	818	3420	1510
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		900	836	389	1240	739
Potassium	7440-09-7	E440/VA	20	mg/kg		13600	5870	9590	14600	5510
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		4570	2870	4560	5300	2690
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		36.5	24.2	39.4	13.9	8.57
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		12.3	11.8	18.7	5.03	4.18
Selenium	7782-49-2	E440/VA	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		<0.010	<0.010	<0.010	0.016	<0.010
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg		0.0231	0.0053	0.0185	0.0122	<0.0050
Silver	7440-22-4	E440A.Ag/VA	0.0010	mg/kg wwt		0.0078	0.0026	0.0088	0.0044	0.0018
Sodium	7440-23-5	E440/VA	20	mg/kg		<20	<20	73	<20	<20
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		<4.0	<4.0	34.5	<4.0	<4.0
Strontium	7440-24-6	E440/VA	0.050	mg/kg		148	32.4	38.1	220	7.64
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		49.8	15.9	18.1	79.8	3.73
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	<0.020
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	<0.0040	<0.0040

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	009-WILL	009-LAB	009-SEDGE	008-WILL	008-LAB
					Client sampling date / time	05-Sep-2023 13:24	05-Sep-2023 13:24	05-Sep-2023 13:24	05-Sep-2023 10:33	05-Sep-2023 10:33
						VA23C2014-027	VA23C2014-028	VA23C2014-029	VA23C2014-031	VA23C2014-032
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0023	<0.0020	0.0055	0.0029	<0.0020
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00076	<0.00040	0.00261	0.00105	<0.00040
Tin	7440-31-5	E440/VA	0.10	mg/kg		<0.10	<0.10	<0.10	<0.10	<0.10
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		<0.020	<0.020	<0.020	<0.020	<0.020
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg		1.09	1.09	0.90	2.31	1.17
Titanium	7440-32-6	E440A.Ti/VA	0.050	mg/kg wwt		0.366	0.532	0.426	0.839	0.574
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	<0.10	<0.10	<0.10	<0.10
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.023	0.020	0.021	0.032	0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg		142	25.7	37.8	427	27.7
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		47.7	12.6	18.0	155	13.5
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	027-WILL	040-WILL	006-HUCK	006-WILL	019-SEDGE
					Client sampling date / time	04-Sep-2023 16:21	04-Sep-2023 13:55	02-Sep-2023 11:04	02-Sep-2023 11:04	03-Sep-2023 12:59
						VA23C2014-034	VA23C2014-036	VA23C2014-038	VA23C2014-039	VA23C2014-041
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		60.5	62.1	----	65.0	59.6
Moisture	----	E144-H/VA	2.0	%		----	----	78.1	----	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		35.4	54.5	----	45.9	28.4
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	53.0	----	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		14.0	20.6	----	16.1	11.5
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	11.6	----	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	<0.010
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	0.0023	----	<0.0020	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.036	0.154	----	0.053	0.169
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	4.45	----	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0144	0.0584	----	0.0186	0.0682
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	0.974	----	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	37.8	----	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		77.6	31.1	----	28.0	58.9
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	8.26	----	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		30.7	11.8	----	9.80	23.8
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	----	0.053	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	0.0187	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	<0.0020
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	3.2	----	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		58.8	40.7	----	3.0	8.0
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	0.70	----	----

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	027-WILL	040-WILL	006-HUCK	006-WILL	019-SEDGE
					Client sampling date / time	04-Sep-2023 16:21	04-Sep-2023 13:55	02-Sep-2023 11:04	02-Sep-2023 11:04	03-Sep-2023 12:59
						VA23C2014-034	VA23C2014-036	VA23C2014-038	VA23C2014-039	VA23C2014-041
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		23.2	15.4	----	1.05	3.24
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		2.68	6.60	----	0.754	0.0073
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	0.024	----	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		1.06	2.50	----	0.264	0.0030
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	0.0054	----	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	2210	----	----
Calcium	7440-70-2	E440/VA	20	mg/kg		23200	32400	----	21800	10600
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	484	----	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		9170	12300	----	7630	4270
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	0.151	----	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		<0.0050	0.0058	----	0.174	0.0130
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	0.0330	----	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0016	0.0022	----	0.0609	0.0052
Chromium	7440-47-3	E440/VA	0.050	mg/kg		<0.050	0.062	----	<0.050	0.051
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.016	0.023	----	<0.010	0.020
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	0.025	----	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		1.62	0.400	----	1.90	0.067
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	0.0056	----	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.640	0.152	----	0.666	0.0272
Copper	7440-50-8	E440/VA	0.10	mg/kg		3.72	5.40	----	2.62	0.81
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	8.51	----	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		1.47	2.05	----	0.917	0.327
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	1.86	----	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		74.1	89.1	----	49.7	85.6
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	75.9	----	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		29.3	33.8	----	17.4	34.6
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	16.6	----	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.046	0.052	----	0.047	0.050

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	027-WILL	040-WILL	006-HUCK	006-WILL	019-SEDGE
					Client sampling date / time	04-Sep-2023 16:21	04-Sep-2023 13:55	02-Sep-2023 11:04	02-Sep-2023 11:04	03-Sep-2023 12:59
						VA23C2014-034	VA23C2014-036	VA23C2014-038	VA23C2014-039	VA23C2014-041
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	0.171	----	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0181	0.0196	----	0.0166	0.0201
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	0.038	----	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	<0.50	----	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	----	<0.50	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	<0.10	----	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	----	<0.10	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	903	----	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		2380	4820	----	3830	2580
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	198	----	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		942	1830	----	1340	1040
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	179	----	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		491	116	----	338	559
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	39.2	----	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		194	43.8	----	118	226
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	<0.0050	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0122	0.0178	----	0.0124	0.0133
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	0.0011	----	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0048	0.0067	----	0.0043	0.0054
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.515	1.82	----	0.742	0.255
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	0.225	----	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.204	0.691	----	0.260	0.103
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	0.0493	----	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	0.47	----	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		2.64	6.68	----	0.64	<0.20
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	0.104	----	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		1.04	2.53	----	0.224	<0.040
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	2310	----	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		4690	8130	----	3840	1910
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	506	----	----

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	027-WILL	040-WILL	006-HUCK	006-WILL	019-SEDGE
					Client sampling date / time	04-Sep-2023 16:21	04-Sep-2023 13:55	02-Sep-2023 11:04	02-Sep-2023 11:04	03-Sep-2023 12:59
						VA23C2014-034	VA23C2014-036	VA23C2014-038	VA23C2014-039	VA23C2014-041
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		1850	3080	----	1340	770
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	8210	----	----
Potassium	7440-09-7	E440/VA	20	mg/kg		12700	11600	----	16700	13300
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	1800	----	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		5000	4400	----	5840	5360
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	24.8	----	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		2.24	1.18	----	22.3	3.50
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	5.42	----	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		0.885	0.449	----	7.82	1.41
Selenium	7782-49-2	E440/VA	0.050	mg/kg		<0.050	0.118	----	<0.050	<0.050
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	<0.10	----	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		<0.010	0.045	----	<0.010	<0.010
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	<0.020	----	----
Silver	7440-22-4	E472.Ag/VA	0.0050	mg/kg		----	----	<0.0050	----	----
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg		0.0085	0.0117	----	0.0050	0.0087
Silver	7440-22-4	E472A.Ag/VA	0.0010	mg/kg wwt		----	----	<0.0010	----	----
Silver	7440-22-4	E440A.Ag/VA	0.0010	mg/kg wwt		0.0033	0.0044	----	0.0018	0.0035
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	<20	----	----
Sodium	7440-23-5	E440/VA	20	mg/kg		<20	<20	----	<20	<20
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	<4.0	----	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		<4.0	5.7	----	<4.0	4.7
Strontium	7440-24-6	E440/VA	0.050	mg/kg		201	193	----	271	90.1
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	18.0	----	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		79.6	73.3	----	95.1	36.4
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	3.95	----	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	<0.020	----	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	----	<0.020	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	<0.0040	----	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	----	<0.0040	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	<0.0020	----	----

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	027-WILL	040-WILL	006-HUCK	006-WILL	019-SEDGE
					Client sampling date / time	04-Sep-2023 16:21	04-Sep-2023 13:55	02-Sep-2023 11:04	02-Sep-2023 11:04	03-Sep-2023 12:59
						VA23C2014-034	VA23C2014-036	VA23C2014-038	VA23C2014-039	VA23C2014-041
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	----	<0.0020	<0.0020
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	----	<0.00040	----	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		<0.00040	<0.00040	----	0.00052	<0.00040
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	<0.10	----	----
Tin	7440-31-5	E440/VA	0.10	mg/kg		<0.10	<0.10	----	<0.10	0.14
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	<0.020	----	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		<0.020	<0.020	----	<0.020	0.058
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg		1.35	2.57	----	<1.00 DLM	1.47
Titanium	7440-32-6	E472.Ti/VA	0.50	mg/kg		----	----	0.54	----	----
Titanium	7440-32-6	E440A.Ti/VA	0.050	mg/kg wwt		0.534	0.975	----	<0.350 DLM	0.593
Titanium	7440-32-6	E472A.Ti/VA	0.10	mg/kg wwt		----	----	0.12	----	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	<0.0020	----	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	----	<0.0020	<0.0020
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	<0.00040	----	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	0.00060	----	<0.00040	<0.00040
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	<0.10	----	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	0.12	----	<0.10	<0.10
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	<0.020	----	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.025	0.046	----	<0.020	0.024
Zinc	7440-66-6	E440/VA	0.50	mg/kg		148	365	----	107	11.8
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	13.8	----	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		58.6	138	----	37.4	4.75
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	3.01	----	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	----	<0.20	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	019-WILL	019-LAB	023-WILL	030-LAB	030-WILL
					Client sampling date / time	03-Sep-2023 12:59	03-Sep-2023 12:59	06-Sep-2023 14:16	06-Sep-2023 11:28	06-Sep-2023 11:28
						VA23C2014-042	VA23C2014-043	VA23C2014-045	VA23C2014-047	VA23C2014-048
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		61.5	52.8	62.9	53.5	67.2
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		34.3	34.6	32.0	77.1	34.9
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		13.2	16.3	11.9	35.9	11.4
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.041	0.046	0.126	0.081	0.039
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0157	0.0215	0.0467	0.0378	0.0127
Barium	7440-39-3	E440/VA	0.050	mg/kg		12.9	79.8	111	116	33.5
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		4.98	37.6	41.2	54.1	11.0
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	0.018
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	0.0031	<0.0020	0.0058
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron	7440-42-8	E440/VA	1.0	mg/kg		28.8	28.6	6.8	19.4	6.4
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		11.1	13.5	2.52	9.03	2.11
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0283	<0.0050	3.82	<0.0050	1.54
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0109	0.0020	1.42	0.0023	0.504
Calcium	7440-70-2	E440/VA	20	mg/kg		26800	6470	29200	5410	23800
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		10300	3050	10800	2520	7790
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0097	0.0102	0.0108	0.0293	0.0248
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0038	0.0048	0.0040	0.0136	0.0081
Chromium	7440-47-3	E440/VA	0.050	mg/kg		<0.050	0.061	<0.050	0.200	<0.050
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.018	0.029	0.013	0.093	0.015
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.339	<0.020	1.58	0.060	0.846
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.131	0.0086	0.587	0.0279	0.278
Copper	7440-50-8	E440/VA	0.10	mg/kg		1.71	2.72	3.35	3.68	3.35
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.657	1.28	1.24	1.71	1.10
Iron	7439-89-6	E440/VA	3.0	mg/kg		72.8	61.5	58.9	75.9	56.9
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		28.0	29.0	21.8	35.3	18.6

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	019-WILL	019-LAB	023-WILL	030-LAB	030-WILL
					Client sampling date / time	03-Sep-2023 12:59	03-Sep-2023 12:59	06-Sep-2023 14:16	06-Sep-2023 11:28	06-Sep-2023 11:28
						VA23C2014-042	VA23C2014-043	VA23C2014-045	VA23C2014-047	VA23C2014-048
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.040	0.040	0.040	0.034	0.029
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0152	0.0186	0.0147	0.0160	0.0094
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		4970	1620	3110	1490	3530
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		1910	763	1150	692	1160
Manganese	7439-96-5	E440/VA	0.050	mg/kg		87.6	891	615	2030	327
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		33.7	420	228	944	107
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0153	0.0137	0.0168	0.0123	0.0132
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0059	0.0064	0.0062	0.0057	0.0043
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.692	0.180	0.228	0.303	0.904
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.266	0.0846	0.0847	0.141	0.297
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	1.39	0.53	2.54
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		0.047	0.046	0.515	0.247	0.832
Phosphorus	7723-14-0	E440/VA	10	mg/kg		4480	1380	2660	1740	4190
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		1720	650	988	811	1380
Potassium	7440-09-7	E440/VA	20	mg/kg		9250	6230	10600	5920	12300
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3560	2940	3920	2750	4050
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		2.81	2.61	5.09	7.29	8.81
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		1.08	1.23	1.89	3.39	2.89
Selenium	7782-49-2	E440/VA	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	0.052
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		<0.010	<0.010	0.011	<0.010	0.017
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg		0.0066	0.0069	<0.0050	0.0060	<0.0050
Silver	7440-22-4	E440A.Ag/VA	0.0010	mg/kg wwt		0.0026	0.0032	0.0015	0.0028	0.0013
Sodium	7440-23-5	E440/VA	20	mg/kg		<20	<20	<20	<20	<20
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		<4.0	<4.0	<4.0	4.2	<4.0
Strontium	7440-24-6	E440/VA	0.050	mg/kg		177	43.2	240	20.0	230
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		68.1	20.4	89.2	9.30	75.6
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	<0.020
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	<0.0040	<0.0040

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	019-WILL	019-LAB	023-WILL	030-LAB	030-WILL
					Client sampling date / time	03-Sep-2023 12:59	03-Sep-2023 12:59	06-Sep-2023 14:16	06-Sep-2023 11:28	06-Sep-2023 11:28
						VA23C2014-042	VA23C2014-043	VA23C2014-045	VA23C2014-047	VA23C2014-048
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Tin	7440-31-5	E440/VA	0.10	mg/kg		<0.10	<0.10	<0.10	<0.10	<0.10
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.022	<0.020	<0.020	<0.020	<0.020
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg		1.77	2.30	1.28	2.19	<1.25 DLM
Titanium	7440-32-6	E440A.Ti/VA	0.050	mg/kg wwt		0.681	1.08	0.475	1.02	<0.400 DLM
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	0.00052	<0.00040	0.00053	<0.00040
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	<0.10	<0.10	0.11	<0.10
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.032	0.041	0.020	0.052	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg		36.5	30.0	124	30.6	143
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		14.1	14.1	45.9	14.2	47.0
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	030-SEDGE	032-WILL	032-SEDGE	032-LAB	007-SEDGE
					Client sampling date / time	06-Sep-2023 11:28	05-Sep-2023 08:46	05-Sep-2023 08:46	05-Sep-2023 08:46	05-Sep-2023 12:05
						VA23C2014-049	VA23C2014-051	VA23C2014-052	VA23C2014-053	VA23C2014-055
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		57.7	67.5	62.4	54.1	66.7
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		51.6	28.7	16.0	34.1	20.7
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		21.8	9.33	6.04	15.7	6.87
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.104	0.049	0.183	<0.020	0.334
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0438	0.0161	0.0688	0.0049	0.111
Barium	7440-39-3	E440/VA	0.050	mg/kg		46.0	24.9	147	71.6	52.7
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		19.4	8.08	55.2	32.9	17.5
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		0.0041	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron	7440-42-8	E440/VA	1.0	mg/kg		5.8	20.1	4.9	13.2	5.4
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		2.44	6.52	1.84	6.06	1.79
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0268	0.759	0.0252	0.0068	0.0172
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0113	0.246	0.0095	0.0031	0.0057
Calcium	7440-70-2	E440/VA	20	mg/kg		4670	24600	9880	6970	2670
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		1970	7990	3720	3200	888
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0432	0.0428	0.294	0.0576	0.515
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0182	0.0139	0.111	0.0265	0.171
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.070	<0.050	0.073	0.120	0.059
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.030	0.012	0.027	0.055	0.020
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.075	0.545	0.052	0.020	0.040
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0316	0.177	0.0198	0.0094	0.0132
Copper	7440-50-8	E440/VA	0.10	mg/kg		1.84	4.14	4.01	3.62	1.57
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.778	1.34	1.51	1.66	0.521
Iron	7439-89-6	E440/VA	3.0	mg/kg		124	65.3	56.8	49.1	121
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		52.3	21.2	21.4	22.5	40.4

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	030-SEDGE	032-WILL	032-SEDGE	032-LAB	007-SEDGE
					Client sampling date / time	06-Sep-2023 11:28	05-Sep-2023 08:46	05-Sep-2023 08:46	05-Sep-2023 08:46	05-Sep-2023 12:05
						VA23C2014-049	VA23C2014-051	VA23C2014-052	VA23C2014-053	VA23C2014-055
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.070	0.046	0.161	0.034	0.022
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0296	0.0150	0.0606	0.0158	0.0072
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		986	4340	1490	1340	1450
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		417	1410	561	617	483
Manganese	7439-96-5	E440/VA	0.050	mg/kg		549	229	3030	1930	942
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		232	74.4	1140	887	313
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0087	0.0153	0.0071	0.0122	0.0081
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0037	0.0050	0.0027	0.0056	0.0027
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		2.67	0.606	7.74	0.734	3.59
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		1.13	0.197	2.91	0.337	1.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg		0.28	0.24	<0.20	<0.20	0.25
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		0.119	0.079	<0.040	0.046	0.082
Phosphorus	7723-14-0	E440/VA	10	mg/kg		812	1220	1360	1430	2450
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		343	398	511	656	816
Potassium	7440-09-7	E440/VA	20	mg/kg		10200	11000	15600	6600	18100
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		4330	3560	5850	3030	6030
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		4.90	10.2	26.0	11.2	31.2
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		2.07	3.33	9.77	5.16	10.4
Selenium	7782-49-2	E440/VA	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		<0.010	<0.010	0.012	<0.010	<0.010
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg		0.0110	0.0134	0.0238	0.0053	<0.0050
Silver	7440-22-4	E440A.Ag/VA	0.0010	mg/kg wwt		0.0046	0.0043	0.0090	0.0024	0.0011
Sodium	7440-23-5	E440/VA	20	mg/kg		<20	<20	<20	<20	<20
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		5.6	<4.0	<4.0	4.2	4.1
Strontium	7440-24-6	E440/VA	0.050	mg/kg		44.8	88.9	38.8	14.6	29.9
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		19.0	28.8	14.6	6.71	9.95
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	<0.020
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	<0.0040	<0.0040

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	030-SEDGE	032-WILL	032-SEDGE	032-LAB	007-SEDGE
					Client sampling date / time	06-Sep-2023 11:28	05-Sep-2023 08:46	05-Sep-2023 08:46	05-Sep-2023 08:46	05-Sep-2023 12:05
						VA23C2014-049	VA23C2014-051	VA23C2014-052	VA23C2014-053	VA23C2014-055
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	<0.0020	<0.0020	0.0042
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00052	0.00057	<0.00040	<0.00040	0.00140
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.23	<0.10	<0.10	<0.10	0.10
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.099	<0.020	0.026	<0.020	0.034
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg		2.01	1.54	0.72	1.80	1.02
Titanium	7440-32-6	E440A.Ti/VA	0.050	mg/kg wwt		0.849	0.498	0.270	0.830	0.338
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.00067	<0.00040	<0.00040	0.00043	<0.00040
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		0.12	<0.10	<0.10	<0.10	<0.10
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.050	<0.020	<0.020	0.028	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg		19.1	91.3	40.8	25.6	36.0
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		8.08	29.6	15.3	11.8	12.0
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	007-WILL	004-SEDGE	001-HUCK	001-SEDGE	014-WILL
					Client sampling date / time	05-Sep-2023 12:05	04-Sep-2023 08:14	02-Sep-2023 14:37	02-Sep-2023 14:37	03-Sep-2023 09:26
						VA23C2014-056	VA23C2014-058	VA23C2014-060	VA23C2014-061	VA23C2014-063
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		69.5	67.3	84.8	68.3	67.2
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		21.8	43.3	18.0	16.0	102
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		6.66	14.1	2.73	5.07	33.5
Antimony	7440-36-0	E440/VA	0.010	mg/kg		0.019	<0.010	<0.010	<0.010	<0.010
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		0.0059	<0.0020	<0.0020	<0.0020	0.0024
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.108	0.358	0.069	0.606	0.083
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0330	0.117	0.0106	0.192	0.0271
Barium	7440-39-3	E440/VA	0.050	mg/kg		9.74	27.7	21.2	36.8	47.6
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		2.97	9.05	3.22	11.7	15.6
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	0.015
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	0.0049
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron	7440-42-8	E440/VA	1.0	mg/kg		18.9	7.9	5.9	2.6	6.7
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		5.75	2.58	0.90	0.83	2.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		1.27	0.0124	<0.0050	0.0153	0.836
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.386	0.0041	<0.0010	0.0049	0.274
Calcium	7440-70-2	E440/VA	20	mg/kg		16000	3740	1050	4660	19500
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		4880	1220	160	1480	6400
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.118	0.380	1.41	14.0	0.0392
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0359	0.124	0.214	4.44	0.0128
Chromium	7440-47-3	E440/VA	0.050	mg/kg		<0.050	0.079	0.078	<0.050	0.158
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.012	0.026	0.012	0.012	0.052
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.684	0.313	<0.020	0.108	1.24
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.208	0.102	<0.0040	0.0341	0.408
Copper	7440-50-8	E440/VA	0.10	mg/kg		3.09	4.51	5.00	1.84	4.00
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.942	1.47	0.760	0.583	1.31
Iron	7439-89-6	E440/VA	3.0	mg/kg		62.4	180	17.7	95.3	144
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		19.0	58.8	2.68	30.2	47.3

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	007-WILL	004-SEDGE	001-HUCK	001-SEDGE	014-WILL
					Client sampling date / time	05-Sep-2023 12:05	04-Sep-2023 08:14	02-Sep-2023 14:37	02-Sep-2023 14:37	03-Sep-2023 09:26
						VA23C2014-056	VA23C2014-058	VA23C2014-060	VA23C2014-061	VA23C2014-063
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.040	0.053	0.025	0.037	0.086
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0123	0.0172	<0.0040	0.0118	0.0283
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		2000	1080	629	1950	4320
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		611	354	95.6	617	1420
Manganese	7439-96-5	E440/VA	0.050	mg/kg		994	547	180	731	295
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		303	179	27.3	231	96.8
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0134	0.0066	<0.0050	0.0079	0.0127
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0041	0.0022	<0.0010	0.0025	0.0042
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		2.71	1.58	0.293	3.23	1.19
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.826	0.517	0.0445	1.02	0.390
Nickel	7440-02-0	E440/VA	0.20	mg/kg		0.39	0.33	0.23	<0.20	1.35
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		0.119	0.108	<0.040	0.061	0.442
Phosphorus	7723-14-0	E440/VA	10	mg/kg		4010	3010	1710	1860	5640
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		1220	983	260	589	1850
Potassium	7440-09-7	E440/VA	20	mg/kg		22300	19300	8900	7400	12200
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		6790	6310	1350	2340	4010
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		33.5	18.3	45.5	36.9	7.84
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		10.2	5.98	6.92	11.7	2.57
Selenium	7782-49-2	E440/VA	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		<0.010	<0.010	<0.010	<0.010	0.011
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg		0.0060	0.0116	<0.0050	0.0061	0.0085
Silver	7440-22-4	E440A.Ag/VA	0.0010	mg/kg wwt		0.0018	0.0038	<0.0010	0.0019	0.0028
Sodium	7440-23-5	E440/VA	20	mg/kg		<20	<20	48	<20	22
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		<4.0	6.3	7.2	4.1	7.0
Strontium	7440-24-6	E440/VA	0.050	mg/kg		129	22.3	2.42	19.0	190
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		39.4	7.28	0.367	6.03	62.2
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	<0.020
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	<0.0040	<0.0040

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	007-WILL	004-SEDGE	001-HUCK	001-SEDGE	014-WILL
					Client sampling date / time	05-Sep-2023 12:05	04-Sep-2023 08:14	02-Sep-2023 14:37	02-Sep-2023 14:37	03-Sep-2023 09:26
						VA23C2014-056	VA23C2014-058	VA23C2014-060	VA23C2014-061	VA23C2014-063
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0053	<0.0020	<0.0020	0.0031	0.0040
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00161	<0.00040	<0.00040	0.00099	0.00131
Tin	7440-31-5	E440/VA	0.10	mg/kg		<0.10	0.12	0.19	<0.10	<0.10
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		<0.020	0.039	0.029	<0.020	0.022
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg		1.03	2.49	<0.25	0.84	7.74
Titanium	7440-32-6	E440A.Ti/VA	0.050	mg/kg wwt		0.314	0.814	<0.050	0.267	2.54
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	<0.0020	<0.0020	0.0040
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	0.00060	<0.00040	<0.00040	0.00130
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	0.11	<0.10	<0.10	0.30
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	0.037	<0.020	0.020	0.098
Zinc	7440-66-6	E440/VA	0.50	mg/kg		102	29.8	5.77	40.9	146
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		31.1	9.75	0.88	13.0	47.8
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	024-SEDGE	024-LAB	024-WILL	DUP1-WILL	DUP1-LAB
					Client sampling date / time	03-Sep-2023 15:45	03-Sep-2023 15:45	03-Sep-2023 15:45	04-Sep-2023 00:00	04-Sep-2023 00:00
						VA23C2014-065	VA23C2014-066	VA23C2014-067	VA23C2014-071	VA23C2014-072
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		62.6	50.7	59.9	67.8	57.7
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		16.6	35.1	28.7	22.8	26.2
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		6.19	17.3	11.5	7.33	11.1
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	0.010	<0.010
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	0.0032	0.0033	0.0024
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.042	0.028	<0.020	0.035	<0.020
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0159	0.0137	0.0076	0.0112	0.0073
Barium	7440-39-3	E440/VA	0.050	mg/kg		60.7	69.5	8.58	12.1	83.9
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		22.7	34.2	3.44	3.88	35.5
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron	7440-42-8	E440/VA	1.0	mg/kg		8.7	17.9	15.5	18.1	29.6
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		3.25	8.82	6.20	5.82	12.5
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0431	<0.0050	0.282	1.12	<0.0050
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0161	0.0023	0.113	0.362	0.0020
Calcium	7440-70-2	E440/VA	20	mg/kg		6780	6380	15300	18200	7100
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		2530	3140	6150	5850	3000
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0372	0.0081	0.0052	0.0909	0.0105
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0139	0.0040	0.0021	0.0292	0.0044
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.054	<0.050	<0.050	<0.050	0.061
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.020	0.023	0.017	0.011	0.026
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.062	<0.020	0.444	1.01	<0.020
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0230	0.0087	0.178	0.326	0.0070
Copper	7440-50-8	E440/VA	0.10	mg/kg		4.58	3.07	1.49	3.67	2.69
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		1.71	1.51	0.598	1.18	1.14
Iron	7439-89-6	E440/VA	3.0	mg/kg		57.8	54.9	54.4	66.4	46.4
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		21.6	27.0	21.8	21.3	19.6

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	024-SEDGE	024-LAB	024-WILL	DUP1-WILL	DUP1-LAB
					Client sampling date / time	03-Sep-2023 15:45	03-Sep-2023 15:45	03-Sep-2023 15:45	04-Sep-2023 00:00	04-Sep-2023 00:00
						VA23C2014-065	VA23C2014-066	VA23C2014-067	VA23C2014-071	VA23C2014-072
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.024	0.029	0.036	0.028	0.028
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0090	0.0144	0.0145	0.0090	0.0120
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1240	1490	3850	2460	1370
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		462	736	1540	791	580
Manganese	7439-96-5	E440/VA	0.050	mg/kg		1550	835	192	835	973
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		579	412	76.8	268	411
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0114	0.0113	0.0105	0.0129	0.0108
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0042	0.0056	0.0042	0.0042	0.0046
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.429	0.086	0.245	3.64	0.159
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.160	0.0425	0.0982	1.17	0.0671
Nickel	7440-02-0	E440/VA	0.20	mg/kg		0.24	<0.20	0.36	0.59	<0.20
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		0.091	<0.040	0.144	0.189	<0.040
Phosphorus	7723-14-0	E440/VA	10	mg/kg		1570	1440	1640	3300	1400
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		586	709	659	1060	593
Potassium	7440-09-7	E440/VA	20	mg/kg		17200	6260	8020	19500	6100
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		6430	3090	3220	6280	2580
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		5.18	2.16	1.87	29.6	2.49
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		1.94	1.06	0.751	9.51	1.05
Selenium	7782-49-2	E440/VA	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.016	<0.010	<0.010	<0.010	<0.010
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg		0.0085	0.0054	<0.0050	0.0080	<0.0050
Silver	7440-22-4	E440A.Ag/VA	0.0010	mg/kg wwt		0.0032	0.0026	0.0019	0.0026	0.0014
Sodium	7440-23-5	E440/VA	20	mg/kg		26	<20	<20	<20	<20
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		9.7	5.5	<4.0	<4.0	4.2
Strontium	7440-24-6	E440/VA	0.050	mg/kg		34.9	21.2	69.7	146	41.1
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		13.0	10.5	28.0	47.0	17.4
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	<0.020
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	<0.0040	<0.0040

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	024-SEDGE	024-LAB	024-WILL	DUP1-WILL	DUP1-LAB
					Client sampling date / time	03-Sep-2023 15:45	03-Sep-2023 15:45	03-Sep-2023 15:45	04-Sep-2023 00:00	04-Sep-2023 00:00
						VA23C2014-065	VA23C2014-066	VA23C2014-067	VA23C2014-071	VA23C2014-072
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	<0.0020	0.0032	<0.0020
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		<0.00040	<0.00040	<0.00040	0.00104	<0.00040
Tin	7440-31-5	E440/VA	0.10	mg/kg		<0.10	<0.10	<0.10	<0.10	0.11
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.023	0.023	0.022	0.024	0.048
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg		0.84	1.76	1.51	1.12	1.61
Titanium	7440-32-6	E440A.Ti/VA	0.050	mg/kg wwt		0.315	0.867	0.605	0.361	0.680
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	0.00042	<0.00040	<0.00040	<0.00040
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	<0.10	<0.10	<0.10	<0.10
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	0.036	0.027	<0.020	0.025
Zinc	7440-66-6	E440/VA	0.50	mg/kg		14.2	24.3	20.4	89.1	29.0
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		5.31	12.0	8.17	28.6	12.2
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DUP1-SEDGE	DUP2-WILL	----	----	----
					Client sampling date / time	04-Sep-2023 00:00	04-Sep-2023 00:00	----	----	----
						VA23C2014-073	VA23C2014-074	--------	--------	--------
						Result	Result	----	----	----
Physical Tests										
Moisture	----	E144/VA	0.50	%		71.3	64.8	----	----	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		26.3	49.8	----	----	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		7.55	17.6	----	----	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		0.011	0.013	----	----	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		0.0033	0.0046	----	----	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.170	0.032	----	----	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0489	0.0111	----	----	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		74.2	37.0	----	----	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		21.3	13.0	----	----	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	----	----	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	0.0028	----	----	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	----	----	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	----	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		5.1	20.0	----	----	----
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		1.48	7.06	----	----	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0296	2.23	----	----	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0085	0.786	----	----	----
Calcium	7440-70-2	E440/VA	20	mg/kg		3220	18500	----	----	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		925	6530	----	----	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.305	0.0099	----	----	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0875	0.0035	----	----	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		<0.050	0.072	----	----	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.012	0.025	----	----	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.038	1.17	----	----	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0108	0.414	----	----	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		1.74	3.10	----	----	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.500	1.09	----	----	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		129	86.7	----	----	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		37.0	30.5	----	----	----

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DUP1-SEDGE	DUP2-WILL	----	----	----
					Client sampling date / time	04-Sep-2023 00:00	04-Sep-2023 00:00	----	----	----
						VA23C2014-073	VA23C2014-074	--------	--------	--------
						Result	Result	----	----	----
Metals										
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.056	0.059	----	----	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0161	0.0208	----	----	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	----	----	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	----	----	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1410	2420	----	----	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		404	852	----	----	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		906	287	----	----	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		260	101	----	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0069	0.0115	----	----	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0020	0.0041	----	----	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		4.58	0.833	----	----	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		1.32	0.293	----	----	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	1.97	----	----	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		0.055	0.693	----	----	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		2420	3900	----	----	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		695	1370	----	----	----
Potassium	7440-09-7	E440/VA	20	mg/kg		18300	14200	----	----	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		5260	4990	----	----	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		17.7	4.39	----	----	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		5.09	1.54	----	----	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		<0.050	<0.050	----	----	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		<0.010	0.010	----	----	----
Silver	7440-22-4	E440.Ag/VA	0.0050	mg/kg		<0.0050	0.0054	----	----	----
Silver	7440-22-4	E440A.Ag/VA	0.0010	mg/kg wwt		0.0011	0.0019	----	----	----
Sodium	7440-23-5	E440/VA	20	mg/kg		<20	<20	----	----	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		<4.0	5.0	----	----	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		37.0	149	----	----	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		10.6	52.6	----	----	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	----	----	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	----	----	----

Analytical Results

Sub-Matrix: **Biota**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DUP1-SEDGE	DUP2-WILL	----	----	----
					Client sampling date / time	04-Sep-2023 00:00	04-Sep-2023 00:00	----	----	----
						VA23C2014-073	VA23C2014-074	--------	--------	--------
						Result	Result	----	----	----
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0043	<0.0020	----	----	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00123	<0.00040	----	----	----
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.18	<0.10	----	----	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.052	0.031	----	----	----
Titanium	7440-32-6	E440.Ti/VA	0.25	mg/kg		1.49	2.74	----	----	----
Titanium	7440-32-6	E440A.Ti/VA	0.050	mg/kg wwt		0.429	0.966	----	----	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	----	----	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	0.00064	----	----	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	0.10	----	----	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	0.036	----	----	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		38.3	37.1	----	----	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		11.0	13.1	----	----	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	----	----	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	----	----

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

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

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)				Client sample ID	021-SOIL	018-SOIL	010-SOIL	002-SOIL	013-SOIL
				Client sampling date / time	08-Sep-2023 14:07	08-Sep-2023 12:17	08-Sep-2023 09:28	07-Sep-2023 08:27	07-Sep-2023 14:38
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C2014-001	VA23C2014-005	VA23C2014-008	VA23C2014-011	VA23C2014-014
					Result	Result	Result	Result	Result
Physical Tests									
pH (1:2 soil:water)	----	E108/VA	0.10	pH units	6.70 FR8	6.39 FR4	3.70	6.42	3.94
Particle Size									
Gravel (>2mm)	----	EC184E/SK	1.0	%	<1.0	11.2	11.1	23.5	21.1
Sand (2.0mm - 0.05mm)	----	E180/SK	1.0	%	<1.0	48.8	40.4	58.6	50.8
Sand (2.0mm - 0.063mm)	----	EC184E/SK	1.0	%	<1.0	42.6	35.3	43.8	39.5
Silt (0.05mm - 0.002mm)	----	E180/SK	1.0	%	66.0	36.2	54.2	26.4	44.2
Clay (<0.002mm)	----	E180/SK	1.0	%	33.1	15.0	5.4	15.0	5.0
Silt (0.063mm - 0.004mm)	----	EC184E/SK	1.0	%	63.7	31.1	46.8	20.4	34.1
Clay (<0.004mm)	----	EC184E/SK	1.0	%	35.5	15.1	6.8	12.3	5.3
Texture class	----	E180/SK	-	-	Silty clay loam	Loam	Silt loam	Sandy loam	Sandy loam
Organic / Inorganic Carbon									
Carbon, total [TC]	----	E351/SK	0.050	%	41.6	15.7	8.49	9.78	10.2
Carbon, inorganic [IC]	----	E354/SK	0.050	%	0.588	0.219	0.067	0.149	0.056
Carbon, inorganic [IC], (as CaCO3 equivalent)	----	E354/SK	0.40	%	4.90	1.82	0.56	1.24	0.47
Carbon, total organic [TOC]	----	EC356/SK	0.050	%	41.0	15.5	8.42	9.63	10.1
Organic matter	----	EC356/SK	0.10	%	70.7	26.7	14.5	16.6	17.4
Metals									
Aluminum	7429-90-5	E440/VA	50	mg/kg	263	7990	5450	8880	7270
Antimony	7440-36-0	E440/VA	0.10	mg/kg	<0.10	0.22	0.45	0.18	0.20
Arsenic	7440-38-2	E440/VA	0.10	mg/kg	1.97	4.81	2.70	2.23	1.76
Barium	7440-39-3	E440/VA	0.50	mg/kg	159	90.7	28.9	139	68.7
Beryllium	7440-41-7	E440/VA	0.10	mg/kg	<0.10	0.28	0.15	0.32	0.24
Bismuth	7440-69-9	E440/VA	0.20	mg/kg	<0.20	<0.20	0.21	<0.20	<0.20
Boron	7440-42-8	E440/VA	5.0	mg/kg	5.3	<5.0	<5.0	<5.0	<5.0
Cadmium	7440-43-9	E440/VA	0.020	mg/kg	0.164	0.146	0.073	0.107	0.482
Calcium	7440-70-2	E440/VA	50	mg/kg	29400	11800	974	9700	2630
Chromium	7440-47-3	E440/VA	0.50	mg/kg	<0.50	14.5	7.55	9.04	9.08
Cobalt	7440-48-4	E440/VA	0.10	mg/kg	1.47	5.52	1.08	3.10	3.46
Copper	7440-50-8	E440/VA	0.50	mg/kg	2.01	10.7	3.11	8.61	7.28

Analytical Results

Sub-Matrix: **Soil**
(Matrix: **Soil/Solid**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	021-SOIL	018-SOIL	010-SOIL	002-SOIL	013-SOIL
					Client sampling date / time	08-Sep-2023 14:07	08-Sep-2023 12:17	08-Sep-2023 09:28	07-Sep-2023 08:27	07-Sep-2023 14:38
						VA23C2014-001	VA23C2014-005	VA23C2014-008	VA23C2014-011	VA23C2014-014
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E440/VA	50	mg/kg		6250	20000	10100	15000	10700
Lead	7439-92-1	E440/VA	0.50	mg/kg		0.85	3.36	7.32	3.92	6.26
Lithium	7439-93-2	E440/VA	2.0	mg/kg		<2.0	5.1	<2.0	4.3	3.5
Magnesium	7439-95-4	E440/VA	20	mg/kg		2700	3200	519	1660	1210
Manganese	7439-96-5	E440/VA	1.0	mg/kg		4010	1250	90.5	648	737
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.102	0.0497	0.0381	0.0334	0.0402
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg		2.84	0.83	0.80	0.84	0.86
Nickel	7440-02-0	E440/VA	0.50	mg/kg		0.68	8.74	1.74	4.34	4.14
Phosphorus	7723-14-0	E440/VA	50	mg/kg		708	693	310	806	358
Potassium	7440-09-7	E440/VA	100	mg/kg		360	530	390	650	660
Selenium	7782-49-2	E440/VA	0.20	mg/kg		<0.20	0.21	<0.20	<0.20	<0.20
Silver	7440-22-4	E440/VA	0.10	mg/kg		<0.10	0.10	0.25	0.12	0.28
Sodium	7440-23-5	E440/VA	50	mg/kg		82	196	110	94	81
Strontium	7440-24-6	E440/VA	0.50	mg/kg		156	68.0	11.3	72.0	27.5
Sulfur	7704-34-9	E440/VA	1000	mg/kg		1300	<1000	<1000	<1000	<1000
Thallium	7440-28-0	E440/VA	0.050	mg/kg		<0.050	0.076	0.069	<0.050	0.078
Tin	7440-31-5	E440/VA	2.0	mg/kg		<2.0	<2.0	<2.0	<2.0	<2.0
Titanium	7440-32-6	E440/VA	1.0	mg/kg		3.1	337	711	515	374
Tungsten	7440-33-7	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Uranium	7440-61-1	E440/VA	0.050	mg/kg		<0.050	0.560	0.950	0.526	0.614
Vanadium	7440-62-2	E440/VA	0.20	mg/kg		0.91	40.9	27.6	36.4	28.4
Zinc	7440-66-6	E440/VA	2.0	mg/kg		4.0	33.6	17.2	28.3	45.3
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		<1.0	<1.0	3.4	1.6	<1.0

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

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

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)				Client sample ID	017-SOIL	005-SOIL	029-SOIL	022-SOIL	009-SOIL
				Client sampling date / time	07-Sep-2023 13:14	07-Sep-2023 10:51	07-Sep-2023 09:00	05-Sep-2023 15:09	05-Sep-2023 13:24
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C2014-016	VA23C2014-017	VA23C2014-020	VA23C2014-024	VA23C2014-026
					Result	Result	Result	Result	Result
Physical Tests									
pH (1:2 soil:water)	----	E108/VA	0.10	pH units	4.62	6.01 FR4	6.59 FR8	4.55	4.79 FR8
Particle Size									
Gravel (>2mm)	----	EC184E/SK	1.0	%	20.1	36.6	<1.0	17.2	<1.0
Sand (2.0mm - 0.05mm)	----	E180/SK	1.0	%	85.8	<1.0	<1.0	50.1	2.2
Sand (2.0mm - 0.063mm)	----	EC184E/SK	1.0	%	68.1	<1.0	<1.0	40.2	2.0
Silt (0.05mm - 0.002mm)	----	E180/SK	1.0	%	11.8	65.0	80.5	45.0	71.7
Clay (<0.002mm)	----	E180/SK	1.0	%	2.3	34.3	19.1	4.8	26.2
Silt (0.063mm - 0.004mm)	----	EC184E/SK	1.0	%	9.6	37.2	77.0	37.3	66.0
Clay (<0.004mm)	----	EC184E/SK	1.0	%	2.2	25.8	22.7	5.3	32.0
Texture class	----	E180/SK	-	-	Loamy sand	Silty clay loam	Silt loam	Sandy loam	Silt loam
Organic / Inorganic Carbon									
Carbon, total [TC]	----	E351/SK	0.050	%	1.39	34.8	45.9	4.70	36.9
Carbon, inorganic [IC]	----	E354/SK	0.050	%	<0.050	0.417	0.506	0.080	0.179
Carbon, inorganic [IC], (as CaCO3 equivalent)	----	E354/SK	0.40	%	<0.40	3.48	4.22	0.67	1.49
Carbon, total organic [TOC]	----	EC356/SK	0.050	%	1.39	34.4	45.4	4.62	36.7
Organic matter	----	EC356/SK	0.10	%	2.40	59.3	78.3	7.96	63.3
Metals									
Aluminum	7429-90-5	E440/VA	50	mg/kg	10100	11300	179	16600	11200
Antimony	7440-36-0	E440/VA	0.10	mg/kg	0.26	0.38	0.14	0.51	0.21
Arsenic	7440-38-2	E440/VA	0.10	mg/kg	2.46	7.17	0.54	5.64	2.24
Barium	7440-39-3	E440/VA	0.50	mg/kg	86.6	149	38.4	53.3	117
Beryllium	7440-41-7	E440/VA	0.10	mg/kg	0.27	0.50	<0.10	0.56	0.57
Bismuth	7440-69-9	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Boron	7440-42-8	E440/VA	5.0	mg/kg	<5.0	<5.0	5.7	<5.0	<5.0
Cadmium	7440-43-9	E440/VA	0.020	mg/kg	0.113	0.645	0.210	0.182	0.391
Calcium	7440-70-2	E440/VA	50	mg/kg	1720	18200	7600	2280	3690
Chromium	7440-47-3	E440/VA	0.50	mg/kg	12.7	6.95	<0.50	16.4	7.04
Cobalt	7440-48-4	E440/VA	0.10	mg/kg	4.68	4.30	0.74	5.64	2.93
Copper	7440-50-8	E440/VA	0.50	mg/kg	4.71	27.6	3.25	9.15	13.9

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID	017-SOIL	005-SOIL	029-SOIL	022-SOIL	009-SOIL
					Client sampling date / time	07-Sep-2023 13:14	07-Sep-2023 10:51	07-Sep-2023 09:00	05-Sep-2023 15:09	05-Sep-2023 13:24
Analyte	CAS Number	Method/Lab	LOR	Unit		VA23C2014-016	VA23C2014-017	VA23C2014-020	VA23C2014-024	VA23C2014-026
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E440/VA	50	mg/kg		15600	12900	2500	19600	6860
Lead	7439-92-1	E440/VA	0.50	mg/kg		7.10	3.72	0.69	132	3.67
Lithium	7439-93-2	E440/VA	2.0	mg/kg		5.9	3.5	<2.0	9.4	3.2
Magnesium	7439-95-4	E440/VA	20	mg/kg		2380	1710	1600	2260	960
Manganese	7439-96-5	E440/VA	1.0	mg/kg		760	1230	45.4	287	363
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0130	0.119	0.0721	0.0442	0.104
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg		0.74	0.83	3.75	0.79	0.56
Nickel	7440-02-0	E440/VA	0.50	mg/kg		7.98	8.48	<0.50	8.87	5.63
Phosphorus	7723-14-0	E440/VA	50	mg/kg		638	830	480	749	910
Potassium	7440-09-7	E440/VA	100	mg/kg		770	790	320	700	550
Selenium	7782-49-2	E440/VA	0.20	mg/kg		<0.20	0.38	0.41	<0.20	<0.20
Silver	7440-22-4	E440/VA	0.10	mg/kg		<0.10	0.70	<0.10	0.18	0.47
Sodium	7440-23-5	E440/VA	50	mg/kg		89	129	72	99	75
Strontium	7440-24-6	E440/VA	0.50	mg/kg		14.0	113	102	18.4	44.1
Sulfur	7704-34-9	E440/VA	1000	mg/kg		<1000	1300	3400	<1000	<1000
Thallium	7440-28-0	E440/VA	0.050	mg/kg		0.106	0.110	<0.050	0.105	<0.050
Tin	7440-31-5	E440/VA	2.0	mg/kg		<2.0	<2.0	<2.0	<2.0	<2.0
Titanium	7440-32-6	E440/VA	1.0	mg/kg		481	65.2	3.5	1040	171
Tungsten	7440-33-7	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Uranium	7440-61-1	E440/VA	0.050	mg/kg		0.425	1.71	0.208	0.762	1.12
Vanadium	7440-62-2	E440/VA	0.20	mg/kg		35.8	18.2	2.24	43.4	14.9
Zinc	7440-66-6	E440/VA	2.0	mg/kg		66.7	23.2	3.3	88.5	30.6
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		2.4	1.8	<1.0	3.3	<1.0

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

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

Analytical Results

Sub-Matrix: Soil
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	008-SOIL	027-SOIL	040-SOIL	006-SOIL	019-SOIL
					Client sampling date / time	05-Sep-2023 10:33	04-Sep-2023 16:21	04-Sep-2023 13:55	02-Sep-2023 11:04	03-Sep-2023 12:59
						VA23C2014-030	VA23C2014-033	VA23C2014-035	VA23C2014-037	VA23C2014-040
						Result	Result	Result	Result	Result
Physical Tests										
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		4.38	5.12	5.95	4.94	6.38 FR4
Particle Size										
Gravel (>2mm)	----	EC184E/SK	1.0	%		21.0	<1.0	<1.0	<1.0	<1.0
Sand (2.0mm - 0.05mm)	----	E180/SK	1.0	%		61.4	62.3	6.1	15.0	<1.0
Sand (2.0mm - 0.063mm)	----	EC184E/SK	1.0	%		47.7	60.0	6.0	14.8	<1.0
Silt (0.05mm - 0.002mm)	----	E180/SK	1.0	%		34.0	33.2	77.2	82.0	95.7
Clay (<0.002mm)	----	E180/SK	1.0	%		4.6	4.5	16.6	3.0	3.9
Silt (0.063mm - 0.004mm)	----	EC184E/SK	1.0	%		26.8	33.6	71.2	81.5	91.4
Clay (<0.004mm)	----	EC184E/SK	1.0	%		4.5	6.4	22.8	3.7	8.3
Texture class	----	E180/SK	-	-		Sandy loam	Sandy loam	Silt loam	Silt	Unknown
Organic / Inorganic Carbon										
Carbon, total [TC]	----	E351/SK	0.050	%		6.15	1.12	11.4	14.0	35.5
Carbon, inorganic [IC]	----	E354/SK	0.050	%		0.061	0.069	0.195	0.115	0.520
Carbon, inorganic [IC], (as CaCO3 equivalent)	----	E354/SK	0.40	%		0.51	0.58	1.62	0.96	4.34
Carbon, total organic [TOC]	----	EC356/SK	0.050	%		6.09	1.05	11.2	13.9	35.0
Organic matter	----	EC356/SK	0.10	%		10.5	1.81	19.3	24.0	60.3
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg		7310	16100	22900	18600	11500
Antimony	7440-36-0	E440/VA	0.10	mg/kg		0.84	0.24	0.48	0.36	0.18
Arsenic	7440-38-2	E440/VA	0.10	mg/kg		13.7	2.38	5.40	33.4	4.35
Barium	7440-39-3	E440/VA	0.50	mg/kg		74.6	108	164	58.8	178
Beryllium	7440-41-7	E440/VA	0.10	mg/kg		0.14	0.32	0.56	1.62	0.29
Bismuth	7440-69-9	E440/VA	0.20	mg/kg		1.50	<0.20	<0.20	0.27	<0.20
Boron	7440-42-8	E440/VA	5.0	mg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
Cadmium	7440-43-9	E440/VA	0.020	mg/kg		0.282	0.067	0.198	0.202	0.155
Calcium	7440-70-2	E440/VA	50	mg/kg		1740	2970	12200	2860	29400
Chromium	7440-47-3	E440/VA	0.50	mg/kg		5.02	24.4	21.6	12.8	11.5
Cobalt	7440-48-4	E440/VA	0.10	mg/kg		1.77	8.32	8.87	4.30	6.55
Copper	7440-50-8	E440/VA	0.50	mg/kg		11.2	8.97	19.2	9.99	14.6
Iron	7439-89-6	E440/VA	50	mg/kg		12400	25100	29100	15100	23000

Analytical Results

Sub-Matrix: **Soil**
(Matrix: **Soil/Solid**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	008-SOIL	027-SOIL	040-SOIL	006-SOIL	019-SOIL
					Client sampling date / time	05-Sep-2023 10:33	04-Sep-2023 16:21	04-Sep-2023 13:55	02-Sep-2023 11:04	03-Sep-2023 12:59
						VA23C2014-030	VA23C2014-033	VA23C2014-035	VA23C2014-037	VA23C2014-040
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E440/VA	0.50	mg/kg		13.3	6.35	7.68	7.93	1.88
Lithium	7439-93-2	E440/VA	2.0	mg/kg		3.1	8.6	7.5	5.7	3.6
Magnesium	7439-95-4	E440/VA	20	mg/kg		1390	3820	5240	1840	2840
Manganese	7439-96-5	E440/VA	1.0	mg/kg		200	845	864	334	1050
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0399	0.0248	0.0534	0.0518	0.116
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg		4.21	0.72	0.65	2.02	0.53
Nickel	7440-02-0	E440/VA	0.50	mg/kg		2.12	15.8	15.2	6.18	10.4
Phosphorus	7723-14-0	E440/VA	50	mg/kg		246	1170	1020	1280	1130
Potassium	7440-09-7	E440/VA	100	mg/kg		600	630	1160	640	560
Selenium	7782-49-2	E440/VA	0.20	mg/kg		<0.20	<0.20	0.25	0.22	0.34
Silver	7440-22-4	E440/VA	0.10	mg/kg		0.22	<0.10	0.38	0.70	<0.10
Sodium	7440-23-5	E440/VA	50	mg/kg		71	102	212	102	124
Strontium	7440-24-6	E440/VA	0.50	mg/kg		15.6	19.5	81.5	38.2	213
Sulfur	7704-34-9	E440/VA	1000	mg/kg		<1000	<1000	<1000	1100	2000
Thallium	7440-28-0	E440/VA	0.050	mg/kg		0.120	0.079	0.086	0.143	0.059
Tin	7440-31-5	E440/VA	2.0	mg/kg		<2.0	<2.0	<2.0	<2.0	<2.0
Titanium	7440-32-6	E440/VA	1.0	mg/kg		612	1080	1080	161	89.8
Tungsten	7440-33-7	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Uranium	7440-61-1	E440/VA	0.050	mg/kg		0.380	0.357	1.70	2.48	0.274
Vanadium	7440-62-2	E440/VA	0.20	mg/kg		32.0	67.5	63.9	37.6	21.8
Zinc	7440-66-6	E440/VA	2.0	mg/kg		63.4	84.8	72.2	30.9	18.7
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		1.3	2.3	6.8	1.1	1.7

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

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

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)				Client sample ID	023-SOIL	030-SOIL	032-SOIL	007-SOIL	004-SOIL
				Client sampling date / time	06-Sep-2023 14:16	06-Sep-2023 11:28	05-Sep-2023 08:46	05-Sep-2023 12:05	04-Sep-2023 08:14
Analyte	CAS Number	Method/Lab	LOR	Unit	VA23C2014-044	VA23C2014-046	VA23C2014-050	VA23C2014-054	VA23C2014-057
					Result	Result	Result	Result	Result
Physical Tests									
pH (1:2 soil:water)	----	E108/VA	0.10	pH units	4.72	4.36	6.61 FR10	5.26 FR4	4.97
Particle Size									
Gravel (>2mm)	----	EC184E/SK	1.0	%	23.5	13.6	<1.0	<1.0	<1.0
Sand (2.0mm - 0.05mm)	----	E180/SK	1.0	%	40.8	34.6	<1.0	1.4	41.0
Sand (2.0mm - 0.063mm)	----	EC184E/SK	1.0	%	30.9	29.2	<1.0	1.4	39.7
Silt (0.05mm - 0.002mm)	----	E180/SK	1.0	%	54.6	55.1	78.0	62.5	54.7
Clay (<0.002mm)	----	E180/SK	1.0	%	4.6	10.4	21.5	36.1	4.3
Silt (0.063mm - 0.004mm)	----	EC184E/SK	1.0	%	40.2	46.6	72.7	57.3	54.3
Clay (<0.004mm)	----	EC184E/SK	1.0	%	5.4	10.6	26.8	41.3	6.0
Texture class	----	E180/SK	-	-	Unknown	Unknown	Unknown	Unknown	Sand
Organic / Inorganic Carbon									
Carbon, total [TC]	----	E351/SK	0.050	%	3.44	7.03	43.7	20.6	3.59
Carbon, inorganic [IC]	----	E354/SK	0.050	%	0.080	0.070	0.525	0.268	0.068
Carbon, inorganic [IC], (as CaCO3 equivalent)	----	E354/SK	0.40	%	0.66	0.58	4.38	2.24	0.56
Carbon, total organic [TOC]	----	EC356/SK	0.050	%	3.36	6.96	43.2	20.3	3.52
Organic matter	----	EC356/SK	0.10	%	5.79	12.0	74.5	35.0	6.07
Metals									
Aluminum	7429-90-5	E440/VA	50	mg/kg	16500	12200	552	27200	10200
Antimony	7440-36-0	E440/VA	0.10	mg/kg	0.69	0.14	0.13	0.79	0.26
Arsenic	7440-38-2	E440/VA	0.10	mg/kg	4.84	1.38	0.16	14.1	3.58
Barium	7440-39-3	E440/VA	0.50	mg/kg	59.6	64.7	82.4	173	50.6
Beryllium	7440-41-7	E440/VA	0.10	mg/kg	0.26	0.19	<0.10	1.27	0.23
Bismuth	7440-69-9	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	0.26	<0.20
Boron	7440-42-8	E440/VA	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
Cadmium	7440-43-9	E440/VA	0.020	mg/kg	0.087	0.027	0.369	0.548	0.082
Calcium	7440-70-2	E440/VA	50	mg/kg	2270	2040	12900	9670	1750
Chromium	7440-47-3	E440/VA	0.50	mg/kg	25.9	9.99	0.63	9.88	10.0
Cobalt	7440-48-4	E440/VA	0.10	mg/kg	6.51	1.73	0.36	4.72	3.36
Copper	7440-50-8	E440/VA	0.50	mg/kg	10.6	4.51	5.56	16.1	8.37
Iron	7439-89-6	E440/VA	50	mg/kg	28900	8900	374	19700	16700

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID	023-SOIL	030-SOIL	032-SOIL	007-SOIL	004-SOIL
					Client sampling date / time	06-Sep-2023 14:16	06-Sep-2023 11:28	05-Sep-2023 08:46	05-Sep-2023 12:05	04-Sep-2023 08:14
Analyte	CAS Number	Method/Lab	LOR	Unit		VA23C2014-044	VA23C2014-046	VA23C2014-050	VA23C2014-054	VA23C2014-057
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E440/VA	0.50	mg/kg		7.33	5.36	1.05	6.34	8.07
Lithium	7439-93-2	E440/VA	2.0	mg/kg		8.2	2.7	<2.0	13.2	5.8
Magnesium	7439-95-4	E440/VA	20	mg/kg		4260	911	915	2820	1770
Manganese	7439-96-5	E440/VA	1.0	mg/kg		243	80.7	1540	925	225
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0314	0.0375	0.0527	0.123	0.0392
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg		0.61	0.35	1.23	5.04	0.52
Nickel	7440-02-0	E440/VA	0.50	mg/kg		10.4	5.37	1.01	9.03	4.56
Phosphorus	7723-14-0	E440/VA	50	mg/kg		679	347	415	1230	658
Potassium	7440-09-7	E440/VA	100	mg/kg		560	520	340	1280	530
Selenium	7782-49-2	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Silver	7440-22-4	E440/VA	0.10	mg/kg		0.22	<0.10	<0.10	0.59	0.15
Sodium	7440-23-5	E440/VA	50	mg/kg		97	119	<50	142	80
Strontium	7440-24-6	E440/VA	0.50	mg/kg		16.3	23.9	42.6	93.3	12.7
Sulfur	7704-34-9	E440/VA	1000	mg/kg		<1000	<1000	<1000	1100	<1000
Thallium	7440-28-0	E440/VA	0.050	mg/kg		0.079	0.086	<0.050	0.180	0.078
Tin	7440-31-5	E440/VA	2.0	mg/kg		<2.0	<2.0	<2.0	<2.0	<2.0
Titanium	7440-32-6	E440/VA	1.0	mg/kg		944	358	6.3	154	394
Tungsten	7440-33-7	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Uranium	7440-61-1	E440/VA	0.050	mg/kg		0.278	0.437	<0.050	4.13	0.445
Vanadium	7440-62-2	E440/VA	0.20	mg/kg		70.4	23.7	3.91	35.4	44.4
Zinc	7440-66-6	E440/VA	2.0	mg/kg		42.1	19.5	<2.0	64.3	34.5
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		1.8	<1.0	<1.0	<2.0 DLM	1.9

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

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

Analytical Results

Sub-Matrix: Soil
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	001-SOIL	014-SOIL	024-SOIL	DUP2-SOIL	DUP3-SOIL
					Client sampling date / time	02-Sep-2023 14:37	03-Sep-2023 09:26	03-Sep-2023 15:45	04-Sep-2023 00:00	04-Sep-2023 00:00
						VA23C2014-059	VA23C2014-062	VA23C2014-064	VA23C2014-068	VA23C2014-069
						Result	Result	Result	Result	Result
Physical Tests										
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		7.15	4.78	7.17 FR20	4.82	7.05
Particle Size										
Gravel (>2mm)	----	EC184E/SK	1.0	%		<1.0	<1.0	<1.0	15.1	26.8
Sand (2.0mm - 0.05mm)	----	E180/SK	1.0	%		37.0	33.7	<1.0	34.4	67.0
Sand (2.0mm - 0.063mm)	----	EC184E/SK	1.0	%		36.2	32.7	<1.0	28.6	47.5
Silt (0.05mm - 0.002mm)	----	E180/SK	1.0	%		59.0	56.7	96.1	56.3	30.1
Clay (<0.002mm)	----	E180/SK	1.0	%		4.0	9.6	3.1	9.2	3.0
Silt (0.063mm - 0.004mm)	----	EC184E/SK	1.0	%		58.9	54.0	93.2	46.1	22.5
Clay (<0.004mm)	----	EC184E/SK	1.0	%		4.9	13.3	6.0	10.2	3.2
Texture class	----	E180/SK	-	-		Silt loam	Silt loam	Silt	Silt loam	Sandy loam
Organic / Inorganic Carbon										
Carbon, total [TC]	----	E351/SK	0.050	%		11.4	3.54	42.4	7.01	9.87
Carbon, inorganic [IC]	----	E354/SK	0.050	%		0.088	0.071	0.580	0.063	0.210
Carbon, inorganic [IC], (as CaCO3 equivalent)	----	E354/SK	0.40	%		0.74	0.59	4.83	0.53	1.75
Carbon, total organic [TOC]	----	EC356/SK	0.050	%		11.3	3.47	41.8	6.95	9.66
Organic matter	----	EC356/SK	0.10	%		19.5	5.98	72.1	12.0	16.6
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg		7800	23400	1120	15600	8660
Antimony	7440-36-0	E440/VA	0.10	mg/kg		0.98	0.28	0.15	0.15	0.18
Arsenic	7440-38-2	E440/VA	0.10	mg/kg		38.8	5.39	0.56	1.84	2.35
Barium	7440-39-3	E440/VA	0.50	mg/kg		102	109	53.4	75.0	106
Beryllium	7440-41-7	E440/VA	0.10	mg/kg		0.28	0.54	<0.10	0.24	0.31
Bismuth	7440-69-9	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Boron	7440-42-8	E440/VA	5.0	mg/kg		<5.0	<5.0	6.0	<5.0	<5.0
Cadmium	7440-43-9	E440/VA	0.020	mg/kg		0.205	0.130	0.861	0.035	0.087
Calcium	7440-70-2	E440/VA	50	mg/kg		2440	3880	25100	2360	6660
Chromium	7440-47-3	E440/VA	0.50	mg/kg		7.06	23.9	1.50	11.1	8.98
Cobalt	7440-48-4	E440/VA	0.10	mg/kg		1.88	9.31	0.58	2.47	2.97
Copper	7440-50-8	E440/VA	0.50	mg/kg		7.70	11.5	9.37	5.65	7.53
Iron	7439-89-6	E440/VA	50	mg/kg		8460	22000	1320	11900	14100

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID	001-SOIL	014-SOIL	024-SOIL	DUP2-SOIL	DUP3-SOIL
					Client sampling date / time	02-Sep-2023 14:37	03-Sep-2023 09:26	03-Sep-2023 15:45	04-Sep-2023 00:00	04-Sep-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit		VA23C2014-059	VA23C2014-062	VA23C2014-064	VA23C2014-068	VA23C2014-069
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E440/VA	0.50	mg/kg		9.77	9.14	0.77	6.36	3.88
Lithium	7439-93-2	E440/VA	2.0	mg/kg		2.1	9.5	<2.0	3.5	4.0
Magnesium	7439-95-4	E440/VA	20	mg/kg		766	3780	2180	1670	1470
Manganese	7439-96-5	E440/VA	1.0	mg/kg		1120	1080	694	112	350
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0503	0.0345	0.0764	0.0467	0.0208
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg		1.56	0.86	2.36	0.40	0.78
Nickel	7440-02-0	E440/VA	0.50	mg/kg		2.81	13.2	4.27	6.88	4.42
Phosphorus	7723-14-0	E440/VA	50	mg/kg		1050	775	718	470	636
Potassium	7440-09-7	E440/VA	100	mg/kg		830	730	490	540	660
Selenium	7782-49-2	E440/VA	0.20	mg/kg		<0.20	<0.20	0.27	<0.20	<0.20
Silver	7440-22-4	E440/VA	0.10	mg/kg		0.41	0.17	<0.10	<0.10	0.11
Sodium	7440-23-5	E440/VA	50	mg/kg		70	152	118	130	107
Strontium	7440-24-6	E440/VA	0.50	mg/kg		20.0	37.4	110	27.7	54.9
Sulfur	7704-34-9	E440/VA	1000	mg/kg		<1000	<1000	2400	<1000	<1000
Thallium	7440-28-0	E440/VA	0.050	mg/kg		0.307	0.118	<0.050	0.088	<0.050
Tin	7440-31-5	E440/VA	2.0	mg/kg		<2.0	<2.0	<2.0	<2.0	<2.0
Titanium	7440-32-6	E440/VA	1.0	mg/kg		42.0	878	15.8	323	588
Tungsten	7440-33-7	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Uranium	7440-61-1	E440/VA	0.050	mg/kg		0.769	1.04	0.188	0.452	0.487
Vanadium	7440-62-2	E440/VA	0.20	mg/kg		18.0	50.1	7.60	28.7	35.2
Zinc	7440-66-6	E440/VA	2.0	mg/kg		50.6	71.2	5.1	22.8	28.8
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		<1.0	1.5	<1.0	<1.0	1.4

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

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

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID	DUP4-SOIL	----	----	----	----
					Client sampling date / time	04-Sep-2023 00:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA23C2014-070	--------	--------	--------	--------
						Result	----	----	----	----
Physical Tests										
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		4.85	----	----	----	----
Particle Size										
Gravel (>2mm)	----	EC184E/SK	1.0	%		18.2	----	----	----	----
Sand (2.0mm - 0.05mm)	----	E180/SK	1.0	%		87.5	----	----	----	----
Sand (2.0mm - 0.063mm)	----	EC184E/SK	1.0	%		71.2	----	----	----	----
Silt (0.05mm - 0.002mm)	----	E180/SK	1.0	%		10.4	----	----	----	----
Clay (<0.002mm)	----	E180/SK	1.0	%		2.1	----	----	----	----
Silt (0.063mm - 0.004mm)	----	EC184E/SK	1.0	%		8.4	----	----	----	----
Clay (<0.004mm)	----	EC184E/SK	1.0	%		2.2	----	----	----	----
Texture class	----	E180/SK	-	-		Sand	----	----	----	----
Organic / Inorganic Carbon										
Carbon, total [TC]	----	E351/SK	0.050	%		1.55	----	----	----	----
Carbon, inorganic [IC]	----	E354/SK	0.050	%		<0.050	----	----	----	----
Carbon, inorganic [IC], (as CaCO3 equivalent)	----	E354/SK	0.40	%		<0.40	----	----	----	----
Carbon, total organic [TOC]	----	EC356/SK	0.050	%		1.55	----	----	----	----
Organic matter	----	EC356/SK	0.10	%		2.67	----	----	----	----
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg		9360	----	----	----	----
Antimony	7440-36-0	E440/VA	0.10	mg/kg		0.35	----	----	----	----
Arsenic	7440-38-2	E440/VA	0.10	mg/kg		3.59	----	----	----	----
Barium	7440-39-3	E440/VA	0.50	mg/kg		79.5	----	----	----	----
Beryllium	7440-41-7	E440/VA	0.10	mg/kg		0.30	----	----	----	----
Bismuth	7440-69-9	E440/VA	0.20	mg/kg		<0.20	----	----	----	----
Boron	7440-42-8	E440/VA	5.0	mg/kg		<5.0	----	----	----	----
Cadmium	7440-43-9	E440/VA	0.020	mg/kg		0.092	----	----	----	----
Calcium	7440-70-2	E440/VA	50	mg/kg		1660	----	----	----	----
Chromium	7440-47-3	E440/VA	0.50	mg/kg		13.0	----	----	----	----
Cobalt	7440-48-4	E440/VA	0.10	mg/kg		5.04	----	----	----	----
Copper	7440-50-8	E440/VA	0.50	mg/kg		5.15	----	----	----	----
Iron	7439-89-6	E440/VA	50	mg/kg		17900	----	----	----	----

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID	DUP4-SOIL	----	----	----	----
					Client sampling date / time	04-Sep-2023 00:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA23C2014-070	--------	--------	--------	--------
						Result	----	----	----	----
Metals										
Lead	7439-92-1	E440/VA	0.50	mg/kg		6.74	----	----	----	----
Lithium	7439-93-2	E440/VA	2.0	mg/kg		6.2	----	----	----	----
Magnesium	7439-95-4	E440/VA	20	mg/kg		2700	----	----	----	----
Manganese	7439-96-5	E440/VA	1.0	mg/kg		780	----	----	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0115	----	----	----	----
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg		0.75	----	----	----	----
Nickel	7440-02-0	E440/VA	0.50	mg/kg		7.69	----	----	----	----
Phosphorus	7723-14-0	E440/VA	50	mg/kg		743	----	----	----	----
Potassium	7440-09-7	E440/VA	100	mg/kg		750	----	----	----	----
Selenium	7782-49-2	E440/VA	0.20	mg/kg		<0.20	----	----	----	----
Silver	7440-22-4	E440/VA	0.10	mg/kg		<0.10	----	----	----	----
Sodium	7440-23-5	E440/VA	50	mg/kg		94	----	----	----	----
Strontium	7440-24-6	E440/VA	0.50	mg/kg		12.8	----	----	----	----
Sulfur	7704-34-9	E440/VA	1000	mg/kg		<1000	----	----	----	----
Thallium	7440-28-0	E440/VA	0.050	mg/kg		0.084	----	----	----	----
Tin	7440-31-5	E440/VA	2.0	mg/kg		<2.0	----	----	----	----
Titanium	7440-32-6	E440/VA	1.0	mg/kg		485	----	----	----	----
Tungsten	7440-33-7	E440/VA	0.50	mg/kg		<0.50	----	----	----	----
Uranium	7440-61-1	E440/VA	0.050	mg/kg		0.459	----	----	----	----
Vanadium	7440-62-2	E440/VA	0.20	mg/kg		38.4	----	----	----	----
Zinc	7440-66-6	E440/VA	2.0	mg/kg		64.0	----	----	----	----
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		2.2	----	----	----	----

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

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

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C2014**	Page	: 1 of 77
Client	: **ERM Consultants Canada Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Kimberly San	Account Manager	: Amber Springer
Address	: 10th Floor, 1100 Melville St. Vancouver BC Canada V6E 4A6	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 14-Sep-2023 09:30
PO	: 12970	Issue Date	: 01-Nov-2023 11:34
C-O-C number	: ----		
Sampler	: KB, SS		
Site	: ----		
Quote number	: VA23-BWGL100-005		
No. of samples received	: 73		
No. of samples analysed	: 73		

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 Laboratory Control Sample (LCS) outliers occur
- Method Blank value outliers occur - please see following pages for full details.
- Duplicate outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- Reference Material (RM) Sample outliers occur - please see the following pages for full details.

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: **Biota**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Metals	QC-MRG8-1208346 001	----	Manganese	7439-96-5	E440	0.080 mg/kg B	0.05 mg/kg	Blank result exceeds permitted value
Metals	QC-MRG8-1208346 001	----	Manganese	7439-96-5	E440A	0.016 mg/kg wwt	0.01 mg/kg wwt	Blank result exceeds permitted value

Result Qualifiers

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

Duplicate (DUP) RPDs								
Metals	VA23C2014-038	006-HUCK	Copper	7440-50-8	E472	43.8 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2014-038	006-HUCK	Magnesium	7439-95-4	E472	41.6 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2014-038	006-HUCK	Manganese	7439-96-5	E472	67.1 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2014-038	006-HUCK	Copper	7440-50-8	E472A	43.8 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2014-038	006-HUCK	Magnesium	7439-95-4	E472A	41.6 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2014-038	006-HUCK	Manganese	7439-96-5	E472A	67.1 % DUP-H	40%	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.*

Reference Material (RM) Sample								
Metals	QC-MRG8-1208328 003	----	Calcium	7440-70-2	E440	140 % MES	70.0-130%	Recovery greater than upper control limit
Metals	QC-MRG8-1208328 003	----	Calcium	7440-70-2	E440A	140 % MES	70.0-130%	Recovery greater than upper control limit

Result Qualifiers

Qualifier	Description

Matrix: **Biota**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*							

Matrix: **Soil/Solid**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Duplicate (DUP) RPDs								
Metals	VA23C2014-001	021-SOIL	Arsenic	7440-38-2	E440	62.5 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2014-001	021-SOIL	Iron	7439-89-6	E440	46.4 % 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
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag 006-HUCK	E511	02-Sep-2023	11-Oct-2023	365 days	39 days	✓	12-Oct-2023	365 days	40 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 010-SEDGE	E510	08-Sep-2023	27-Oct-2023	365 days	49 days	✓	31-Oct-2023	365 days	53 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 010-WILL	E510	08-Sep-2023	27-Oct-2023	365 days	49 days	✓	31-Oct-2023	365 days	53 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 018-SEDGE	E510	08-Sep-2023	27-Oct-2023	365 days	49 days	✓	31-Oct-2023	365 days	53 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 018-WILL	E510	08-Sep-2023	27-Oct-2023	365 days	49 days	✓	31-Oct-2023	365 days	53 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 021-SEDGE	E510	08-Sep-2023	27-Oct-2023	365 days	49 days	✓	31-Oct-2023	365 days	53 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 021-WILL	E510	08-Sep-2023	27-Oct-2023	365 days	49 days	✓	31-Oct-2023	365 days	53 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*	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 002-LAB	E510	07-Sep-2023	27-Oct-2023	365 days	50 days	✓	31-Oct-2023	365 days	54 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 002-WILL	E510	07-Sep-2023	27-Oct-2023	365 days	50 days	✓	31-Oct-2023	365 days	54 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 005-LAB	E510	07-Sep-2023	27-Oct-2023	365 days	50 days	✓	31-Oct-2023	365 days	54 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 005-WILL	E510	07-Sep-2023	27-Oct-2023	365 days	50 days	✓	31-Oct-2023	365 days	54 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 013-WILL	E510	07-Sep-2023	27-Oct-2023	365 days	50 days	✓	31-Oct-2023	365 days	54 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 023-WILL	E510	06-Sep-2023	27-Oct-2023	365 days	51 days	✓	31-Oct-2023	365 days	55 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 029-LAB	E510	06-Sep-2023	27-Oct-2023	365 days	51 days	✓	31-Oct-2023	365 days	55 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 029-SEDGE	E510	06-Sep-2023	27-Oct-2023	365 days	51 days	✓	31-Oct-2023	365 days	55 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 029-WILL	E510	06-Sep-2023	27-Oct-2023	365 days	51 days	✓	31-Oct-2023	365 days	55 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, Routine)										
LDPE bag 030-LAB	E510	06-Sep-2023	27-Oct-2023	365 days	51 days	✓	31-Oct-2023	365 days	55 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 030-SEDGE	E510	06-Sep-2023	27-Oct-2023	365 days	51 days	✓	31-Oct-2023	365 days	55 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 030-WILL	E510	06-Sep-2023	27-Oct-2023	365 days	51 days	✓	31-Oct-2023	365 days	55 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 007-SEDGE	E510	05-Sep-2023	27-Oct-2023	365 days	52 days	✓	31-Oct-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 007-WILL	E510	05-Sep-2023	27-Oct-2023	365 days	52 days	✓	31-Oct-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 008-LAB	E510	05-Sep-2023	27-Oct-2023	365 days	52 days	✓	31-Oct-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 008-WILL	E510	05-Sep-2023	27-Oct-2023	365 days	52 days	✓	31-Oct-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 009-LAB	E510	05-Sep-2023	27-Oct-2023	365 days	52 days	✓	31-Oct-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 009-SEDGE	E510	05-Sep-2023	27-Oct-2023	365 days	52 days	✓	31-Oct-2023	365 days	56 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, Routine)										
LDPE bag 009-WILL	E510	05-Sep-2023	27-Oct-2023	365 days	52 days	✓	31-Oct-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 022-WILL	E510	05-Sep-2023	27-Oct-2023	365 days	52 days	✓	31-Oct-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 032-LAB	E510	05-Sep-2023	27-Oct-2023	365 days	52 days	✓	31-Oct-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 032-SEDGE	E510	05-Sep-2023	27-Oct-2023	365 days	52 days	✓	31-Oct-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 032-WILL	E510	05-Sep-2023	27-Oct-2023	365 days	52 days	✓	31-Oct-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 027-WILL	E510	04-Sep-2023	27-Oct-2023	365 days	53 days	✓	31-Oct-2023	365 days	57 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 040-WILL	E510	04-Sep-2023	27-Oct-2023	365 days	53 days	✓	31-Oct-2023	365 days	57 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 019-LAB	E510	03-Sep-2023	27-Oct-2023	365 days	54 days	✓	31-Oct-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 019-SEDGE	E510	03-Sep-2023	27-Oct-2023	365 days	54 days	✓	31-Oct-2023	365 days	58 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, Routine)										
LDPE bag 019-WILL	E510	03-Sep-2023	27-Oct-2023	365 days	54 days	✓	31-Oct-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 006-WILL	E510	02-Sep-2023	27-Oct-2023	365 days	55 days	✓	31-Oct-2023	365 days	59 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 004-SEDGE	E510	04-Sep-2023	31-Oct-2023	365 days	57 days	✓	31-Oct-2023	365 days	57 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag DUP1-LAB	E510	04-Sep-2023	31-Oct-2023	365 days	57 days	✓	31-Oct-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag DUP1-SEDGE	E510	04-Sep-2023	31-Oct-2023	365 days	57 days	✓	31-Oct-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag DUP1-WILL	E510	04-Sep-2023	31-Oct-2023	365 days	57 days	✓	31-Oct-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag DUP2-WILL	E510	04-Sep-2023	31-Oct-2023	365 days	57 days	✓	31-Oct-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 014-WILL	E510	03-Sep-2023	31-Oct-2023	365 days	58 days	✓	31-Oct-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 024-LAB	E510	03-Sep-2023	31-Oct-2023	365 days	58 days	✓	31-Oct-2023	365 days	58 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*	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 024-SEDGE	E510	03-Sep-2023	31-Oct-2023	365 days	58 days	✓	31-Oct-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 024-WILL	E510	03-Sep-2023	31-Oct-2023	365 days	58 days	✓	31-Oct-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 001-HUCK	E510	02-Sep-2023	31-Oct-2023	365 days	59 days	✓	31-Oct-2023	365 days	59 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 001-SEDGE	E510	02-Sep-2023	31-Oct-2023	365 days	59 days	✓	31-Oct-2023	365 days	59 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag 006-HUCK	E511A	02-Sep-2023	11-Oct-2023	365 days	39 days	✓	12-Oct-2023	365 days	40 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 010-SEDGE	E510A	08-Sep-2023	27-Oct-2023	365 days	49 days	✓	31-Oct-2023	365 days	53 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 010-WILL	E510A	08-Sep-2023	27-Oct-2023	365 days	49 days	✓	31-Oct-2023	365 days	53 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 018-SEDGE	E510A	08-Sep-2023	27-Oct-2023	365 days	49 days	✓	31-Oct-2023	365 days	53 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 018-WILL	E510A	08-Sep-2023	27-Oct-2023	365 days	49 days	✓	31-Oct-2023	365 days	53 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 units, Routine)										
LDPE bag 021-SEDGE	E510A	08-Sep-2023	27-Oct-2023	365 days	49 days	✓	31-Oct-2023	365 days	53 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 021-WILL	E510A	08-Sep-2023	27-Oct-2023	365 days	49 days	✓	31-Oct-2023	365 days	53 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 002-LAB	E510A	07-Sep-2023	27-Oct-2023	365 days	50 days	✓	31-Oct-2023	365 days	54 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 002-WILL	E510A	07-Sep-2023	27-Oct-2023	365 days	50 days	✓	31-Oct-2023	365 days	54 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 005-LAB	E510A	07-Sep-2023	27-Oct-2023	365 days	50 days	✓	31-Oct-2023	365 days	54 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 005-WILL	E510A	07-Sep-2023	27-Oct-2023	365 days	50 days	✓	31-Oct-2023	365 days	54 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 013-WILL	E510A	07-Sep-2023	27-Oct-2023	365 days	50 days	✓	31-Oct-2023	365 days	54 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 023-WILL	E510A	06-Sep-2023	27-Oct-2023	365 days	51 days	✓	31-Oct-2023	365 days	55 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 029-LAB	E510A	06-Sep-2023	27-Oct-2023	365 days	51 days	✓	31-Oct-2023	365 days	55 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 units, Routine)										
LDPE bag 029-SEDGE	E510A	06-Sep-2023	27-Oct-2023	365 days	51 days	✓	31-Oct-2023	365 days	55 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 029-WILL	E510A	06-Sep-2023	27-Oct-2023	365 days	51 days	✓	31-Oct-2023	365 days	55 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 030-LAB	E510A	06-Sep-2023	27-Oct-2023	365 days	51 days	✓	31-Oct-2023	365 days	55 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 030-SEDGE	E510A	06-Sep-2023	27-Oct-2023	365 days	51 days	✓	31-Oct-2023	365 days	55 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 030-WILL	E510A	06-Sep-2023	27-Oct-2023	365 days	51 days	✓	31-Oct-2023	365 days	55 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 007-SEDGE	E510A	05-Sep-2023	27-Oct-2023	365 days	52 days	✓	31-Oct-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 007-WILL	E510A	05-Sep-2023	27-Oct-2023	365 days	52 days	✓	31-Oct-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 008-LAB	E510A	05-Sep-2023	27-Oct-2023	365 days	52 days	✓	31-Oct-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 008-WILL	E510A	05-Sep-2023	27-Oct-2023	365 days	52 days	✓	31-Oct-2023	365 days	56 days	✓

Matrix: **Biota**

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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*	
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 009-LAB	E510A	05-Sep-2023	27-Oct-2023	365 days	52 days	✓	31-Oct-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 009-SEDGE	E510A	05-Sep-2023	27-Oct-2023	365 days	52 days	✓	31-Oct-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 009-WILL	E510A	05-Sep-2023	27-Oct-2023	365 days	52 days	✓	31-Oct-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 022-WILL	E510A	05-Sep-2023	27-Oct-2023	365 days	52 days	✓	31-Oct-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 032-LAB	E510A	05-Sep-2023	27-Oct-2023	365 days	52 days	✓	31-Oct-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 032-SEDGE	E510A	05-Sep-2023	27-Oct-2023	365 days	52 days	✓	31-Oct-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 032-WILL	E510A	05-Sep-2023	27-Oct-2023	365 days	52 days	✓	31-Oct-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 027-WILL	E510A	04-Sep-2023	27-Oct-2023	365 days	53 days	✓	31-Oct-2023	365 days	57 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 040-WILL	E510A	04-Sep-2023	27-Oct-2023	365 days	53 days	✓	31-Oct-2023	365 days	57 days	✓

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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 units, Routine)										
LDPE bag 019-LAB	E510A	03-Sep-2023	27-Oct-2023	365 days	54 days	✓	31-Oct-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 019-SEDGE	E510A	03-Sep-2023	27-Oct-2023	365 days	54 days	✓	31-Oct-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 019-WILL	E510A	03-Sep-2023	27-Oct-2023	365 days	54 days	✓	31-Oct-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 006-WILL	E510A	02-Sep-2023	27-Oct-2023	365 days	55 days	✓	31-Oct-2023	365 days	59 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 004-SEDGE	E510A	04-Sep-2023	31-Oct-2023	365 days	57 days	✓	31-Oct-2023	365 days	57 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag DUP1-LAB	E510A	04-Sep-2023	31-Oct-2023	365 days	57 days	✓	31-Oct-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag DUP1-SEDGE	E510A	04-Sep-2023	31-Oct-2023	365 days	57 days	✓	31-Oct-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag DUP1-WILL	E510A	04-Sep-2023	31-Oct-2023	365 days	57 days	✓	31-Oct-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag DUP2-WILL	E510A	04-Sep-2023	31-Oct-2023	365 days	57 days	✓	31-Oct-2023	365 days	58 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 units, Routine)										
LDPE bag 014-WILL	E510A	03-Sep-2023	31-Oct-2023	365 days	58 days	✓	31-Oct-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 024-LAB	E510A	03-Sep-2023	31-Oct-2023	365 days	58 days	✓	31-Oct-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 024-SEDGE	E510A	03-Sep-2023	31-Oct-2023	365 days	58 days	✓	31-Oct-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 024-WILL	E510A	03-Sep-2023	31-Oct-2023	365 days	58 days	✓	31-Oct-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 001-HUCK	E510A	02-Sep-2023	31-Oct-2023	365 days	59 days	✓	31-Oct-2023	365 days	59 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 001-SEDGE	E510A	02-Sep-2023	31-Oct-2023	365 days	59 days	✓	31-Oct-2023	365 days	59 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag 006-HUCK	E472	02-Sep-2023	11-Oct-2023	730 days	39 days	✓	16-Oct-2023	730 days	44 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 010-SEDGE	E440	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 010-WILL	E440	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓

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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, Routine)										
LDPE bag 018-SEDGE	E440	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 018-WILL	E440	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 021-SEDGE	E440	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 021-WILL	E440	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 002-LAB	E440	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	30-Oct-2023	730 days	53 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 002-WILL	E440	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	30-Oct-2023	730 days	53 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 005-LAB	E440	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	30-Oct-2023	730 days	53 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 005-WILL	E440	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	30-Oct-2023	730 days	53 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 013-WILL	E440	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	30-Oct-2023	730 days	53 days	✓

Matrix: **Biota**

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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, Routine)										
LDPE bag 023-WILL	E440	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 029-LAB	E440	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 029-SEDGE	E440	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 029-WILL	E440	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 030-LAB	E440	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 030-SEDGE	E440	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 030-WILL	E440	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 007-SEDGE	E440	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 007-WILL	E440	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓

Matrix: **Biota**

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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, Routine)										
LDPE bag 008-LAB	E440	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 008-WILL	E440	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 009-LAB	E440	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 009-SEDGE	E440	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 009-WILL	E440	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 022-WILL	E440	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 032-LAB	E440	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 032-SEDGE	E440	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 032-WILL	E440	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 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, Routine)										
LDPE bag 027-WILL	E440	04-Sep-2023	27-Oct-2023	730 days	53 days	✓	30-Oct-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 040-WILL	E440	04-Sep-2023	27-Oct-2023	730 days	53 days	✓	30-Oct-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 019-LAB	E440	03-Sep-2023	27-Oct-2023	730 days	54 days	✓	30-Oct-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 019-SEDGE	E440	03-Sep-2023	27-Oct-2023	730 days	54 days	✓	30-Oct-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 019-WILL	E440	03-Sep-2023	27-Oct-2023	730 days	54 days	✓	30-Oct-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 006-WILL	E440	02-Sep-2023	27-Oct-2023	730 days	55 days	✓	30-Oct-2023	730 days	58 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 004-SEDGE	E440	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag DUP1-LAB	E440	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag DUP1-SEDGE	E440	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 days	✓

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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, Routine)										
LDPE bag DUP1-WILL	E440	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag DUP2-WILL	E440	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 014-WILL	E440	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 024-LAB	E440	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 024-SEDGE	E440	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 024-WILL	E440	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 001-HUCK	E440	02-Sep-2023	31-Oct-2023	730 days	59 days	✓	31-Oct-2023	730 days	59 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 001-SEDGE	E440	02-Sep-2023	31-Oct-2023	730 days	59 days	✓	31-Oct-2023	730 days	59 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag 006-HUCK	E472A	02-Sep-2023	11-Oct-2023	730 days	39 days	✓	16-Oct-2023	730 days	44 days	✓

Matrix: **Biota**

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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 units, Routine)										
LDPE bag 010-SEDGE	E440A	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 010-WILL	E440A	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 018-SEDGE	E440A	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 018-WILL	E440A	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 021-SEDGE	E440A	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 021-WILL	E440A	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 002-LAB	E440A	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	30-Oct-2023	730 days	53 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 002-WILL	E440A	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	30-Oct-2023	730 days	53 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 005-LAB	E440A	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	30-Oct-2023	730 days	53 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*	
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 005-WILL	E440A	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	30-Oct-2023	730 days	53 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 013-WILL	E440A	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	30-Oct-2023	730 days	53 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 023-WILL	E440A	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 029-LAB	E440A	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 029-SEDGE	E440A	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 029-WILL	E440A	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 030-LAB	E440A	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 030-SEDGE	E440A	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 030-WILL	E440A	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓

Matrix: **Biota**

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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 units, Routine)										
LDPE bag 007-SEDGE	E440A	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 007-WILL	E440A	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 008-LAB	E440A	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 008-WILL	E440A	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 009-LAB	E440A	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 009-SEDGE	E440A	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 009-WILL	E440A	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 022-WILL	E440A	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 032-LAB	E440A	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓

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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*	
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 032-SEDGE	E440A	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 032-WILL	E440A	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 027-WILL	E440A	04-Sep-2023	27-Oct-2023	730 days	53 days	✓	30-Oct-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 040-WILL	E440A	04-Sep-2023	27-Oct-2023	730 days	53 days	✓	30-Oct-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 019-LAB	E440A	03-Sep-2023	27-Oct-2023	730 days	54 days	✓	30-Oct-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 019-SEDGE	E440A	03-Sep-2023	27-Oct-2023	730 days	54 days	✓	30-Oct-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 019-WILL	E440A	03-Sep-2023	27-Oct-2023	730 days	54 days	✓	30-Oct-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 006-WILL	E440A	02-Sep-2023	27-Oct-2023	730 days	55 days	✓	30-Oct-2023	730 days	58 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 004-SEDGE	E440A	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	57 days	✓

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			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 units, Routine)										
LDPE bag DUP1-LAB	E440A	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag DUP1-SEDGE	E440A	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag DUP1-WILL	E440A	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag DUP2-WILL	E440A	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 014-WILL	E440A	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 024-LAB	E440A	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 024-SEDGE	E440A	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 024-WILL	E440A	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 001-HUCK	E440A	02-Sep-2023	31-Oct-2023	730 days	59 days	✓	31-Oct-2023	730 days	59 days	✓

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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 units, Routine)										
LDPE bag 001-SEDGE	E440A	02-Sep-2023	31-Oct-2023	730 days	59 days	✓	31-Oct-2023	730 days	59 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag 006-HUCK	E472.Ag	02-Sep-2023	11-Oct-2023	730 days	39 days	✓	16-Oct-2023	730 days	44 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 010-SEDGE	E440.Ag	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 010-WILL	E440.Ag	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 018-SEDGE	E440.Ag	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 018-WILL	E440.Ag	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 021-SEDGE	E440.Ag	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 021-WILL	E440.Ag	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 002-LAB	E440.Ag	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	30-Oct-2023	730 days	53 days	✓

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			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 002-WILL	E440.Ag	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	30-Oct-2023	730 days	53 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 005-LAB	E440.Ag	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	30-Oct-2023	730 days	53 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 005-WILL	E440.Ag	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	30-Oct-2023	730 days	53 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 013-WILL	E440.Ag	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	30-Oct-2023	730 days	53 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 023-WILL	E440.Ag	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 029-LAB	E440.Ag	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 029-SEDGE	E440.Ag	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 029-WILL	E440.Ag	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 030-LAB	E440.Ag	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓

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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 : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 030-SEDGE	E440.Ag	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 030-WILL	E440.Ag	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 007-SEDGE	E440.Ag	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 007-WILL	E440.Ag	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 008-LAB	E440.Ag	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 008-WILL	E440.Ag	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 009-LAB	E440.Ag	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 009-SEDGE	E440.Ag	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 009-WILL	E440.Ag	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 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 : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 022-WILL	E440.Ag	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 032-LAB	E440.Ag	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 032-SEDGE	E440.Ag	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 032-WILL	E440.Ag	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 027-WILL	E440.Ag	04-Sep-2023	27-Oct-2023	730 days	53 days	✓	30-Oct-2023	730 days	56 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 040-WILL	E440.Ag	04-Sep-2023	27-Oct-2023	730 days	53 days	✓	30-Oct-2023	730 days	56 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 019-LAB	E440.Ag	03-Sep-2023	27-Oct-2023	730 days	54 days	✓	30-Oct-2023	730 days	57 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 019-SEDGE	E440.Ag	03-Sep-2023	27-Oct-2023	730 days	54 days	✓	30-Oct-2023	730 days	57 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 019-WILL	E440.Ag	03-Sep-2023	27-Oct-2023	730 days	54 days	✓	30-Oct-2023	730 days	57 days	✓

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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 : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 006-WILL	E440.Ag	02-Sep-2023	27-Oct-2023	730 days	55 days	✓	30-Oct-2023	730 days	58 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 004-SEDGE	E440.Ag	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	57 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag DUP1-LAB	E440.Ag	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag DUP1-SEDGE	E440.Ag	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag DUP1-WILL	E440.Ag	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag DUP2-WILL	E440.Ag	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 014-WILL	E440.Ag	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 024-LAB	E440.Ag	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 024-SEDGE	E440.Ag	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓

Matrix: **Biota**

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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*	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 024-WILL	E440.Ag	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 001-HUCK	E440.Ag	02-Sep-2023	31-Oct-2023	730 days	59 days	✓	31-Oct-2023	730 days	59 days	✓
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 001-SEDGE	E440.Ag	02-Sep-2023	31-Oct-2023	730 days	59 days	✓	31-Oct-2023	730 days	59 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag 006-HUCK	E472A.Ag	02-Sep-2023	11-Oct-2023	730 days	39 days	✓	11-Oct-2023	730 days	39 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 010-SEDGE	E440A.Ag	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	28-Oct-2023	730 days	50 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 010-WILL	E440A.Ag	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	28-Oct-2023	730 days	50 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 018-SEDGE	E440A.Ag	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	28-Oct-2023	730 days	50 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 018-WILL	E440A.Ag	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	28-Oct-2023	730 days	50 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 021-SEDGE	E440A.Ag	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	28-Oct-2023	730 days	50 days	✓

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			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 021-WILL	E440A.Ag	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	28-Oct-2023	730 days	50 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 002-LAB	E440A.Ag	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	28-Oct-2023	730 days	51 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 002-WILL	E440A.Ag	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	28-Oct-2023	730 days	51 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 005-LAB	E440A.Ag	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	28-Oct-2023	730 days	51 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 005-WILL	E440A.Ag	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	28-Oct-2023	730 days	51 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 013-WILL	E440A.Ag	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	28-Oct-2023	730 days	51 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 023-WILL	E440A.Ag	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	28-Oct-2023	730 days	52 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 029-LAB	E440A.Ag	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	28-Oct-2023	730 days	52 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 029-SEDGE	E440A.Ag	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	28-Oct-2023	730 days	52 days	✓

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			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 029-WILL	E440A.Ag	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	28-Oct-2023	730 days	52 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 030-LAB	E440A.Ag	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	28-Oct-2023	730 days	52 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 030-SEDGE	E440A.Ag	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	28-Oct-2023	730 days	52 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 030-WILL	E440A.Ag	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	28-Oct-2023	730 days	52 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 007-SEDGE	E440A.Ag	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	28-Oct-2023	730 days	53 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 007-WILL	E440A.Ag	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	28-Oct-2023	730 days	53 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 008-LAB	E440A.Ag	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	28-Oct-2023	730 days	53 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 008-WILL	E440A.Ag	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	28-Oct-2023	730 days	53 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 009-LAB	E440A.Ag	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	28-Oct-2023	730 days	53 days	✓

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Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 009-SEDGE	E440A.Ag	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	28-Oct-2023	730 days	53 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 009-WILL	E440A.Ag	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	28-Oct-2023	730 days	53 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 022-WILL	E440A.Ag	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	28-Oct-2023	730 days	53 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 032-LAB	E440A.Ag	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	28-Oct-2023	730 days	53 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 032-SEDGE	E440A.Ag	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	28-Oct-2023	730 days	53 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 032-WILL	E440A.Ag	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	28-Oct-2023	730 days	53 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 027-WILL	E440A.Ag	04-Sep-2023	27-Oct-2023	730 days	53 days	✓	28-Oct-2023	730 days	54 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 040-WILL	E440A.Ag	04-Sep-2023	27-Oct-2023	730 days	53 days	✓	28-Oct-2023	730 days	54 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 019-LAB	E440A.Ag	03-Sep-2023	27-Oct-2023	730 days	54 days	✓	28-Oct-2023	730 days	55 days	✓

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LDPE bag 019-SEDGE	E440A.Ag	03-Sep-2023	27-Oct-2023	730 days	54 days	✓	28-Oct-2023	730 days	55 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 019-WILL	E440A.Ag	03-Sep-2023	27-Oct-2023	730 days	54 days	✓	28-Oct-2023	730 days	55 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 006-WILL	E440A.Ag	02-Sep-2023	27-Oct-2023	730 days	55 days	✓	28-Oct-2023	730 days	56 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 004-SEDGE	E440A.Ag	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	57 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag DUP1-LAB	E440A.Ag	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag DUP1-SEDGE	E440A.Ag	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag DUP1-WILL	E440A.Ag	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag DUP2-WILL	E440A.Ag	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 014-WILL	E440A.Ag	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓

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Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 024-LAB	E440A.Ag	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 024-SEDGE	E440A.Ag	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 024-WILL	E440A.Ag	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 001-HUCK	E440A.Ag	02-Sep-2023	31-Oct-2023	730 days	59 days	✓	31-Oct-2023	730 days	59 days	✓
Metals : Silver in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 001-SEDGE	E440A.Ag	02-Sep-2023	31-Oct-2023	730 days	59 days	✓	31-Oct-2023	730 days	59 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag 006-HUCK	E472.Ti	02-Sep-2023	11-Oct-2023	730 days	39 days	✓	16-Oct-2023	730 days	44 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 010-SEDGE	E440.Ti	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 010-WILL	E440.Ti	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 018-SEDGE	E440.Ti	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓

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Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 018-WILL	E440.Ti	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 021-SEDGE	E440.Ti	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 021-WILL	E440.Ti	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	30-Oct-2023	730 days	52 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 002-LAB	E440.Ti	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	30-Oct-2023	730 days	53 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 002-WILL	E440.Ti	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	30-Oct-2023	730 days	53 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 005-LAB	E440.Ti	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	30-Oct-2023	730 days	53 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 005-WILL	E440.Ti	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	30-Oct-2023	730 days	53 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 013-WILL	E440.Ti	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	30-Oct-2023	730 days	53 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 023-WILL	E440.Ti	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓

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			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 029-LAB	E440.Ti	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 029-SEDGE	E440.Ti	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 029-WILL	E440.Ti	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	30-Oct-2023	730 days	54 days	✓
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Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
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Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
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Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 007-SEDGE	E440.Ti	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 007-WILL	E440.Ti	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 008-LAB	E440.Ti	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓

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LDPE bag 008-WILL	E440.Ti	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 009-LAB	E440.Ti	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 009-SEDGE	E440.Ti	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 009-WILL	E440.Ti	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 022-WILL	E440.Ti	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 032-LAB	E440.Ti	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 032-SEDGE	E440.Ti	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 032-WILL	E440.Ti	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	30-Oct-2023	730 days	55 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 027-WILL	E440.Ti	04-Sep-2023	27-Oct-2023	730 days	53 days	✓	30-Oct-2023	730 days	56 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 : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 040-WILL	E440.Ti	04-Sep-2023	27-Oct-2023	730 days	53 days	✓	30-Oct-2023	730 days	56 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 019-LAB	E440.Ti	03-Sep-2023	27-Oct-2023	730 days	54 days	✓	30-Oct-2023	730 days	57 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 019-SEDGE	E440.Ti	03-Sep-2023	27-Oct-2023	730 days	54 days	✓	30-Oct-2023	730 days	57 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 019-WILL	E440.Ti	03-Sep-2023	27-Oct-2023	730 days	54 days	✓	30-Oct-2023	730 days	57 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 006-WILL	E440.Ti	02-Sep-2023	27-Oct-2023	730 days	55 days	✓	30-Oct-2023	730 days	58 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 004-SEDGE	E440.Ti	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	57 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag DUP1-LAB	E440.Ti	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag DUP1-SEDGE	E440.Ti	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag DUP1-WILL	E440.Ti	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 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 : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag DUP2-WILL	E440.Ti	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 014-WILL	E440.Ti	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 024-LAB	E440.Ti	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 024-SEDGE	E440.Ti	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 024-WILL	E440.Ti	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 001-HUCK	E440.Ti	02-Sep-2023	31-Oct-2023	730 days	59 days	✓	31-Oct-2023	730 days	59 days	✓
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 001-SEDGE	E440.Ti	02-Sep-2023	31-Oct-2023	730 days	59 days	✓	31-Oct-2023	730 days	59 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag 006-HUCK	E472A.Ti	02-Sep-2023	11-Oct-2023	730 days	39 days	✓	11-Oct-2023	730 days	39 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 010-SEDGE	E440A.Ti	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	28-Oct-2023	730 days	50 days	✓

Matrix: **Biota**

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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 : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 010-WILL	E440A.Ti	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	28-Oct-2023	730 days	50 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 018-SEDGE	E440A.Ti	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	28-Oct-2023	730 days	50 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 018-WILL	E440A.Ti	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	28-Oct-2023	730 days	50 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 021-SEDGE	E440A.Ti	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	28-Oct-2023	730 days	50 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 021-WILL	E440A.Ti	08-Sep-2023	27-Oct-2023	730 days	49 days	✓	28-Oct-2023	730 days	50 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 002-LAB	E440A.Ti	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	28-Oct-2023	730 days	51 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 002-WILL	E440A.Ti	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	28-Oct-2023	730 days	51 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 005-LAB	E440A.Ti	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	28-Oct-2023	730 days	51 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 005-WILL	E440A.Ti	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	28-Oct-2023	730 days	51 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 : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 013-WILL	E440A.Ti	07-Sep-2023	27-Oct-2023	730 days	50 days	✓	28-Oct-2023	730 days	51 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 023-WILL	E440A.Ti	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	28-Oct-2023	730 days	52 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 029-LAB	E440A.Ti	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	28-Oct-2023	730 days	52 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 029-SEDGE	E440A.Ti	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	28-Oct-2023	730 days	52 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 029-WILL	E440A.Ti	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	28-Oct-2023	730 days	52 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 030-LAB	E440A.Ti	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	28-Oct-2023	730 days	52 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 030-SEDGE	E440A.Ti	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	28-Oct-2023	730 days	52 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 030-WILL	E440A.Ti	06-Sep-2023	27-Oct-2023	730 days	51 days	✓	28-Oct-2023	730 days	52 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 007-SEDGE	E440A.Ti	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	28-Oct-2023	730 days	53 days	✓

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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 : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 007-WILL	E440A.Ti	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	28-Oct-2023	730 days	53 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 008-LAB	E440A.Ti	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	28-Oct-2023	730 days	53 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 008-WILL	E440A.Ti	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	28-Oct-2023	730 days	53 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 009-LAB	E440A.Ti	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	28-Oct-2023	730 days	53 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 009-SEDGE	E440A.Ti	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	28-Oct-2023	730 days	53 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 009-WILL	E440A.Ti	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	28-Oct-2023	730 days	53 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 022-WILL	E440A.Ti	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	28-Oct-2023	730 days	53 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 032-LAB	E440A.Ti	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	28-Oct-2023	730 days	53 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 032-SEDGE	E440A.Ti	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	28-Oct-2023	730 days	53 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 : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 032-WILL	E440A.Ti	05-Sep-2023	27-Oct-2023	730 days	52 days	✓	28-Oct-2023	730 days	53 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 027-WILL	E440A.Ti	04-Sep-2023	27-Oct-2023	730 days	53 days	✓	28-Oct-2023	730 days	54 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 040-WILL	E440A.Ti	04-Sep-2023	27-Oct-2023	730 days	53 days	✓	28-Oct-2023	730 days	54 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 019-LAB	E440A.Ti	03-Sep-2023	27-Oct-2023	730 days	54 days	✓	28-Oct-2023	730 days	55 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 019-SEDGE	E440A.Ti	03-Sep-2023	27-Oct-2023	730 days	54 days	✓	28-Oct-2023	730 days	55 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 019-WILL	E440A.Ti	03-Sep-2023	27-Oct-2023	730 days	54 days	✓	28-Oct-2023	730 days	55 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 006-WILL	E440A.Ti	02-Sep-2023	27-Oct-2023	730 days	55 days	✓	28-Oct-2023	730 days	56 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 004-SEDGE	E440A.Ti	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	57 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag DUP1-LAB	E440A.Ti	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 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 : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag DUP1-SEDGE	E440A.Ti	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag DUP1-WILL	E440A.Ti	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag DUP2-WILL	E440A.Ti	04-Sep-2023	31-Oct-2023	730 days	57 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 014-WILL	E440A.Ti	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 024-LAB	E440A.Ti	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 024-SEDGE	E440A.Ti	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 024-WILL	E440A.Ti	03-Sep-2023	31-Oct-2023	730 days	58 days	✓	31-Oct-2023	730 days	58 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 001-HUCK	E440A.Ti	02-Sep-2023	31-Oct-2023	730 days	59 days	✓	31-Oct-2023	730 days	59 days	✓
Metals : Titanium in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 001-SEDGE	E440A.Ti	02-Sep-2023	31-Oct-2023	730 days	59 days	✓	31-Oct-2023	730 days	59 days	✓

Matrix: **Biota**

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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 : Moisture Content by Gravimetry (Micro)										
LDPE bag 006-HUCK	E144-H	02-Sep-2023	----	----	----		05-Oct-2023	----	33 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 010-SEDGE	E144	08-Sep-2023	----	----	----		21-Sep-2023	----	13 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 010-WILL	E144	08-Sep-2023	----	----	----		21-Sep-2023	----	13 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 018-SEDGE	E144	08-Sep-2023	----	----	----		21-Sep-2023	----	13 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 018-WILL	E144	08-Sep-2023	----	----	----		21-Sep-2023	----	13 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 021-SEDGE	E144	08-Sep-2023	----	----	----		21-Sep-2023	----	13 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 021-WILL	E144	08-Sep-2023	----	----	----		21-Sep-2023	----	13 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 002-LAB	E144	07-Sep-2023	----	----	----		21-Sep-2023	----	14 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 002-WILL	E144	07-Sep-2023	----	----	----		21-Sep-2023	----	14 days	

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			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 005-LAB	E144	07-Sep-2023	----	----	----		21-Sep-2023	----	14 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 005-WILL	E144	07-Sep-2023	----	----	----		21-Sep-2023	----	14 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 013-WILL	E144	07-Sep-2023	----	----	----		21-Sep-2023	----	14 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 023-WILL	E144	06-Sep-2023	----	----	----		21-Sep-2023	----	15 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 029-LAB	E144	06-Sep-2023	----	----	----		21-Sep-2023	----	15 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 029-SEDGE	E144	06-Sep-2023	----	----	----		21-Sep-2023	----	15 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 029-WILL	E144	06-Sep-2023	----	----	----		21-Sep-2023	----	15 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 030-LAB	E144	06-Sep-2023	----	----	----		21-Sep-2023	----	15 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 030-SEDGE	E144	06-Sep-2023	----	----	----		21-Sep-2023	----	15 days	

Matrix: **Biota**

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

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			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 030-WILL	E144	06-Sep-2023	----	----	----		21-Sep-2023	----	15 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 007-SEDGE	E144	05-Sep-2023	----	----	----		21-Sep-2023	----	16 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 007-WILL	E144	05-Sep-2023	----	----	----		21-Sep-2023	----	16 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 008-LAB	E144	05-Sep-2023	----	----	----		21-Sep-2023	----	16 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 008-WILL	E144	05-Sep-2023	----	----	----		21-Sep-2023	----	16 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 009-LAB	E144	05-Sep-2023	----	----	----		21-Sep-2023	----	16 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 009-SEDGE	E144	05-Sep-2023	----	----	----		21-Sep-2023	----	16 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 009-WILL	E144	05-Sep-2023	----	----	----		21-Sep-2023	----	16 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 022-WILL	E144	05-Sep-2023	----	----	----		21-Sep-2023	----	16 days	

Matrix: **Biota**

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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										
LDPE bag 032-LAB	E144	05-Sep-2023	----	----	----		21-Sep-2023	----	16 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 032-SEDGE	E144	05-Sep-2023	----	----	----		21-Sep-2023	----	16 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 032-WILL	E144	05-Sep-2023	----	----	----		21-Sep-2023	----	16 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 004-SEDGE	E144	04-Sep-2023	----	----	----		21-Sep-2023	----	17 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 027-WILL	E144	04-Sep-2023	----	----	----		21-Sep-2023	----	17 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 040-WILL	E144	04-Sep-2023	----	----	----		21-Sep-2023	----	17 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag DUP1-LAB	E144	04-Sep-2023	----	----	----		21-Sep-2023	----	17 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag DUP1-SEDGE	E144	04-Sep-2023	----	----	----		21-Sep-2023	----	17 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag DUP1-WILL	E144	04-Sep-2023	----	----	----		21-Sep-2023	----	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 : Moisture Content by Gravimetry										
LDPE bag DUP2-WILL	E144	04-Sep-2023	----	----	----		21-Sep-2023	----	17 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 014-WILL	E144	03-Sep-2023	----	----	----		21-Sep-2023	----	18 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 019-LAB	E144	03-Sep-2023	----	----	----		21-Sep-2023	----	18 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 019-SEDGE	E144	03-Sep-2023	----	----	----		21-Sep-2023	----	18 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 019-WILL	E144	03-Sep-2023	----	----	----		21-Sep-2023	----	18 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 024-LAB	E144	03-Sep-2023	----	----	----		21-Sep-2023	----	18 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 024-SEDGE	E144	03-Sep-2023	----	----	----		21-Sep-2023	----	18 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 024-WILL	E144	03-Sep-2023	----	----	----		21-Sep-2023	----	18 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 001-HUCK	E144	02-Sep-2023	----	----	----		21-Sep-2023	----	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 : Moisture Content by Gravimetry										
LDPE bag 001-SEDGE	E144	02-Sep-2023	----	----	----		21-Sep-2023	----	19 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 006-WILL	E144	02-Sep-2023	----	----	----		21-Sep-2023	----	19 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										
LDPE bag 010-SOIL	E510	08-Sep-2023	22-Sep-2023	28 days	14 days	✓	23-Sep-2023	28 days	15 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 018-SOIL	E510	08-Sep-2023	22-Sep-2023	28 days	14 days	✓	23-Sep-2023	28 days	15 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 021-SOIL	E510	08-Sep-2023	22-Sep-2023	28 days	14 days	✓	23-Sep-2023	28 days	15 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 005-SOIL	E510	07-Sep-2023	22-Sep-2023	28 days	15 days	✓	23-Sep-2023	28 days	16 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 013-SOIL	E510	07-Sep-2023	22-Sep-2023	28 days	15 days	✓	23-Sep-2023	28 days	16 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 017-SOIL	E510	07-Sep-2023	22-Sep-2023	28 days	15 days	✓	23-Sep-2023	28 days	16 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										
LDPE bag 029-SOIL	E510	07-Sep-2023	22-Sep-2023	28 days	15 days	✓	23-Sep-2023	28 days	16 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 002-SOIL	E510	07-Sep-2023	22-Sep-2023	28 days	16 days	✓	23-Sep-2023	28 days	16 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 023-SOIL	E510	06-Sep-2023	22-Sep-2023	28 days	16 days	✓	23-Sep-2023	28 days	17 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 030-SOIL	E510	06-Sep-2023	22-Sep-2023	28 days	16 days	✓	23-Sep-2023	28 days	17 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 007-SOIL	E510	05-Sep-2023	22-Sep-2023	28 days	17 days	✓	23-Sep-2023	28 days	18 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 008-SOIL	E510	05-Sep-2023	22-Sep-2023	28 days	17 days	✓	23-Sep-2023	28 days	18 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 009-SOIL	E510	05-Sep-2023	22-Sep-2023	28 days	17 days	✓	23-Sep-2023	28 days	18 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 022-SOIL	E510	05-Sep-2023	22-Sep-2023	28 days	17 days	✓	23-Sep-2023	28 days	18 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 032-SOIL	E510	05-Sep-2023	22-Sep-2023	28 days	18 days	✓	23-Sep-2023	28 days	18 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										
LDPE bag 027-SOIL	E510	04-Sep-2023	22-Sep-2023	28 days	18 days	✓	23-Sep-2023	28 days	19 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 040-SOIL	E510	04-Sep-2023	22-Sep-2023	28 days	18 days	✓	23-Sep-2023	28 days	19 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 004-SOIL	E510	04-Sep-2023	22-Sep-2023	28 days	19 days	✓	23-Sep-2023	28 days	19 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag DUP2-SOIL	E510	04-Sep-2023	22-Sep-2023	28 days	19 days	✓	23-Sep-2023	28 days	19 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag DUP3-SOIL	E510	04-Sep-2023	22-Sep-2023	28 days	19 days	✓	23-Sep-2023	28 days	19 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag DUP4-SOIL	E510	04-Sep-2023	22-Sep-2023	28 days	19 days	✓	23-Sep-2023	28 days	19 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 014-SOIL	E510	03-Sep-2023	22-Sep-2023	28 days	19 days	✓	23-Sep-2023	28 days	20 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 019-SOIL	E510	03-Sep-2023	22-Sep-2023	28 days	19 days	✓	23-Sep-2023	28 days	20 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 024-SOIL	E510	03-Sep-2023	22-Sep-2023	28 days	19 days	✓	23-Sep-2023	28 days	20 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										
LDPE bag 001-SOIL	E510	02-Sep-2023	22-Sep-2023	28 days	20 days	✓	23-Sep-2023	28 days	21 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 006-SOIL	E510	02-Sep-2023	22-Sep-2023	28 days	20 days	✓	23-Sep-2023	28 days	21 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 010-SOIL	E440	08-Sep-2023	22-Sep-2023	180 days	14 days	✓	24-Sep-2023	180 days	16 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 018-SOIL	E440	08-Sep-2023	22-Sep-2023	180 days	14 days	✓	24-Sep-2023	180 days	16 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 021-SOIL	E440	08-Sep-2023	22-Sep-2023	180 days	14 days	✓	24-Sep-2023	180 days	16 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 005-SOIL	E440	07-Sep-2023	22-Sep-2023	180 days	15 days	✓	24-Sep-2023	180 days	17 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 013-SOIL	E440	07-Sep-2023	22-Sep-2023	180 days	15 days	✓	24-Sep-2023	180 days	17 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 017-SOIL	E440	07-Sep-2023	22-Sep-2023	180 days	15 days	✓	24-Sep-2023	180 days	17 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 029-SOIL	E440	07-Sep-2023	22-Sep-2023	180 days	15 days	✓	24-Sep-2023	180 days	17 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										
LDPE bag 002-SOIL	E440	07-Sep-2023	22-Sep-2023	180 days	16 days	✓	24-Sep-2023	180 days	17 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 023-SOIL	E440	06-Sep-2023	22-Sep-2023	180 days	16 days	✓	24-Sep-2023	180 days	18 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 030-SOIL	E440	06-Sep-2023	22-Sep-2023	180 days	16 days	✓	24-Sep-2023	180 days	18 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 007-SOIL	E440	05-Sep-2023	22-Sep-2023	180 days	17 days	✓	24-Sep-2023	180 days	19 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 008-SOIL	E440	05-Sep-2023	22-Sep-2023	180 days	17 days	✓	24-Sep-2023	180 days	19 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 009-SOIL	E440	05-Sep-2023	22-Sep-2023	180 days	17 days	✓	24-Sep-2023	180 days	19 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 022-SOIL	E440	05-Sep-2023	22-Sep-2023	180 days	17 days	✓	24-Sep-2023	180 days	19 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 032-SOIL	E440	05-Sep-2023	22-Sep-2023	180 days	18 days	✓	24-Sep-2023	180 days	19 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 027-SOIL	E440	04-Sep-2023	22-Sep-2023	180 days	18 days	✓	24-Sep-2023	180 days	20 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										
LDPE bag 040-SOIL	E440	04-Sep-2023	22-Sep-2023	180 days	18 days	✓	24-Sep-2023	180 days	20 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 004-SOIL	E440	04-Sep-2023	22-Sep-2023	180 days	19 days	✓	24-Sep-2023	180 days	20 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag DUP2-SOIL	E440	04-Sep-2023	22-Sep-2023	180 days	19 days	✓	24-Sep-2023	180 days	20 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag DUP3-SOIL	E440	04-Sep-2023	22-Sep-2023	180 days	19 days	✓	24-Sep-2023	180 days	20 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag DUP4-SOIL	E440	04-Sep-2023	22-Sep-2023	180 days	19 days	✓	24-Sep-2023	180 days	20 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 014-SOIL	E440	03-Sep-2023	22-Sep-2023	180 days	19 days	✓	24-Sep-2023	180 days	21 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 019-SOIL	E440	03-Sep-2023	22-Sep-2023	180 days	19 days	✓	24-Sep-2023	180 days	21 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 024-SOIL	E440	03-Sep-2023	22-Sep-2023	180 days	19 days	✓	24-Sep-2023	180 days	21 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 001-SOIL	E440	02-Sep-2023	22-Sep-2023	180 days	20 days	✓	24-Sep-2023	180 days	22 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										
LDPE bag 006-SOIL	E440	02-Sep-2023	22-Sep-2023	180 days	20 days	✓	24-Sep-2023	180 days	22 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 001-SOIL	E351	02-Sep-2023	23-Sep-2023	----	----		23-Sep-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 002-SOIL	E351	07-Sep-2023	22-Sep-2023	----	----		22-Sep-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 004-SOIL	E351	04-Sep-2023	22-Sep-2023	----	----		22-Sep-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 005-SOIL	E351	07-Sep-2023	22-Sep-2023	----	----		22-Sep-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 006-SOIL	E351	02-Sep-2023	22-Sep-2023	----	----		22-Sep-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 007-SOIL	E351	05-Sep-2023	22-Sep-2023	----	----		22-Sep-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 008-SOIL	E351	05-Sep-2023	22-Sep-2023	----	----		22-Sep-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 009-SOIL	E351	05-Sep-2023	22-Sep-2023	----	----		22-Sep-2023	0 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*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 010-SOIL	E351	08-Sep-2023	22-Sep-2023	----	----		22-Sep-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 013-SOIL	E351	07-Sep-2023	22-Sep-2023	----	----		22-Sep-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 014-SOIL	E351	03-Sep-2023	23-Sep-2023	----	----		23-Sep-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 017-SOIL	E351	07-Sep-2023	22-Sep-2023	----	----		22-Sep-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 018-SOIL	E351	08-Sep-2023	22-Sep-2023	----	----		22-Sep-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 019-SOIL	E351	03-Sep-2023	22-Sep-2023	----	----		22-Sep-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 021-SOIL	E351	08-Sep-2023	22-Sep-2023	----	----		22-Sep-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 022-SOIL	E351	05-Sep-2023	22-Sep-2023	----	----		22-Sep-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 023-SOIL	E351	06-Sep-2023	22-Sep-2023	----	----		22-Sep-2023	0 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*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 024-SOIL	E351	03-Sep-2023	23-Sep-2023	----	----		23-Sep-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 027-SOIL	E351	04-Sep-2023	22-Sep-2023	----	----		22-Sep-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 029-SOIL	E351	07-Sep-2023	22-Sep-2023	----	----		22-Sep-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 030-SOIL	E351	06-Sep-2023	22-Sep-2023	----	----		22-Sep-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 032-SOIL	E351	05-Sep-2023	22-Sep-2023	----	----		22-Sep-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 040-SOIL	E351	04-Sep-2023	22-Sep-2023	----	----		22-Sep-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag DUP2-SOIL	E351	04-Sep-2023	23-Sep-2023	----	----		23-Sep-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag DUP3-SOIL	E351	04-Sep-2023	23-Sep-2023	----	----		23-Sep-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag DUP4-SOIL	E351	04-Sep-2023	23-Sep-2023	----	----		23-Sep-2023	0 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
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 010-SOIL	E354	08-Sep-2023	----	----	----		21-Sep-2023	----	13 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 018-SOIL	E354	08-Sep-2023	----	----	----		21-Sep-2023	----	13 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 021-SOIL	E354	08-Sep-2023	----	----	----		21-Sep-2023	----	13 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 002-SOIL	E354	07-Sep-2023	----	----	----		21-Sep-2023	----	14 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 005-SOIL	E354	07-Sep-2023	----	----	----		21-Sep-2023	----	14 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 013-SOIL	E354	07-Sep-2023	----	----	----		21-Sep-2023	----	14 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 017-SOIL	E354	07-Sep-2023	----	----	----		21-Sep-2023	----	14 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 029-SOIL	E354	07-Sep-2023	----	----	----		21-Sep-2023	----	14 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 023-SOIL	E354	06-Sep-2023	----	----	----		21-Sep-2023	----	15 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
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 030-SOIL	E354	06-Sep-2023	----	----	----		21-Sep-2023	----	15 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 007-SOIL	E354	05-Sep-2023	----	----	----		21-Sep-2023	----	16 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 008-SOIL	E354	05-Sep-2023	----	----	----		21-Sep-2023	----	16 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 009-SOIL	E354	05-Sep-2023	----	----	----		21-Sep-2023	----	16 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 022-SOIL	E354	05-Sep-2023	----	----	----		21-Sep-2023	----	16 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 032-SOIL	E354	05-Sep-2023	----	----	----		21-Sep-2023	----	16 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 004-SOIL	E354	04-Sep-2023	----	----	----		21-Sep-2023	----	17 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 027-SOIL	E354	04-Sep-2023	----	----	----		21-Sep-2023	----	17 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 040-SOIL	E354	04-Sep-2023	----	----	----		21-Sep-2023	----	17 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
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 019-SOIL	E354	03-Sep-2023	----	----	----		21-Sep-2023	----	18 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 006-SOIL	E354	02-Sep-2023	----	----	----		21-Sep-2023	----	19 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 014-SOIL	E354	03-Sep-2023	----	----	----		22-Sep-2023	----	19 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 024-SOIL	E354	03-Sep-2023	----	----	----		22-Sep-2023	----	19 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag DUP2-SOIL	E354	04-Sep-2023	----	----	----		22-Sep-2023	----	19 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag DUP3-SOIL	E354	04-Sep-2023	----	----	----		22-Sep-2023	----	19 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag DUP4-SOIL	E354	04-Sep-2023	----	----	----		22-Sep-2023	----	19 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 001-SOIL	E354	02-Sep-2023	----	----	----		22-Sep-2023	----	20 days	
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag 010-SOIL	E180	08-Sep-2023	----	----	----		22-Sep-2023	365 days	14 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
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag 018-SOIL	E180	08-Sep-2023	----	----	----		22-Sep-2023	365 days	14 days	✓
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag 021-SOIL	E180	08-Sep-2023	----	----	----		22-Sep-2023	365 days	14 days	✓
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag 002-SOIL	E180	07-Sep-2023	----	----	----		22-Sep-2023	365 days	15 days	✓
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag 005-SOIL	E180	07-Sep-2023	----	----	----		22-Sep-2023	365 days	15 days	✓
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag 013-SOIL	E180	07-Sep-2023	----	----	----		22-Sep-2023	365 days	15 days	✓
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag 017-SOIL	E180	07-Sep-2023	----	----	----		22-Sep-2023	365 days	15 days	✓
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag 029-SOIL	E180	07-Sep-2023	----	----	----		22-Sep-2023	365 days	15 days	✓
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag 023-SOIL	E180	06-Sep-2023	----	----	----		22-Sep-2023	365 days	16 days	✓
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag 030-SOIL	E180	06-Sep-2023	----	----	----		22-Sep-2023	365 days	16 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*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag 007-SOIL	E180	05-Sep-2023	----	----	----		22-Sep-2023	365 days	17 days	✓
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag 008-SOIL	E180	05-Sep-2023	----	----	----		22-Sep-2023	365 days	17 days	✓
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag 009-SOIL	E180	05-Sep-2023	----	----	----		22-Sep-2023	365 days	17 days	✓
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag 022-SOIL	E180	05-Sep-2023	----	----	----		22-Sep-2023	365 days	17 days	✓
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag 032-SOIL	E180	05-Sep-2023	----	----	----		22-Sep-2023	365 days	17 days	✓
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag 004-SOIL	E180	04-Sep-2023	----	----	----		22-Sep-2023	365 days	18 days	✓
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag 027-SOIL	E180	04-Sep-2023	----	----	----		22-Sep-2023	365 days	18 days	✓
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag 040-SOIL	E180	04-Sep-2023	----	----	----		22-Sep-2023	365 days	18 days	✓
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag DUP2-SOIL	E180	04-Sep-2023	----	----	----		22-Sep-2023	365 days	18 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*
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag DUP3-SOIL	E180	04-Sep-2023	----	----	----		22-Sep-2023	365 days	18 days	✓
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag DUP4-SOIL	E180	04-Sep-2023	----	----	----		22-Sep-2023	365 days	18 days	✓
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag 014-SOIL	E180	03-Sep-2023	----	----	----		22-Sep-2023	365 days	19 days	✓
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag 019-SOIL	E180	03-Sep-2023	----	----	----		22-Sep-2023	365 days	19 days	✓
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag 024-SOIL	E180	03-Sep-2023	----	----	----		22-Sep-2023	365 days	19 days	✓
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag 001-SOIL	E180	02-Sep-2023	----	----	----		22-Sep-2023	365 days	20 days	✓
Particle Size : CSSC Particle Size Classification by Hydrometer										
LDPE bag 006-SOIL	E180	02-Sep-2023	----	----	----		22-Sep-2023	365 days	20 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 018-SOIL	E108	08-Sep-2023	22-Sep-2023	30 days	14 days	✓	22-Sep-2023	30 days	14 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 021-SOIL	E108	08-Sep-2023	22-Sep-2023	30 days	14 days	✓	22-Sep-2023	30 days	14 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)										
LDPE bag 010-SOIL	E108	08-Sep-2023	22-Sep-2023	30 days	14 days	✓	22-Sep-2023	30 days	15 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 005-SOIL	E108	07-Sep-2023	22-Sep-2023	30 days	15 days	✓	22-Sep-2023	30 days	15 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 013-SOIL	E108	07-Sep-2023	22-Sep-2023	30 days	15 days	✓	22-Sep-2023	30 days	15 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 017-SOIL	E108	07-Sep-2023	22-Sep-2023	30 days	15 days	✓	22-Sep-2023	30 days	15 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 029-SOIL	E108	07-Sep-2023	22-Sep-2023	30 days	15 days	✓	22-Sep-2023	30 days	16 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 002-SOIL	E108	07-Sep-2023	22-Sep-2023	30 days	16 days	✓	22-Sep-2023	30 days	16 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 023-SOIL	E108	06-Sep-2023	22-Sep-2023	30 days	16 days	✓	22-Sep-2023	30 days	16 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 030-SOIL	E108	06-Sep-2023	22-Sep-2023	30 days	16 days	✓	22-Sep-2023	30 days	16 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 007-SOIL	E108	05-Sep-2023	22-Sep-2023	30 days	17 days	✓	22-Sep-2023	30 days	17 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)										
LDPE bag 008-SOIL	E108	05-Sep-2023	22-Sep-2023	30 days	17 days	✓	22-Sep-2023	30 days	17 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 009-SOIL	E108	05-Sep-2023	22-Sep-2023	30 days	17 days	✓	22-Sep-2023	30 days	17 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 022-SOIL	E108	05-Sep-2023	22-Sep-2023	30 days	17 days	✓	22-Sep-2023	30 days	17 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 027-SOIL	E108	04-Sep-2023	22-Sep-2023	30 days	18 days	✓	22-Sep-2023	30 days	18 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 032-SOIL	E108	05-Sep-2023	22-Sep-2023	30 days	18 days	✓	22-Sep-2023	30 days	18 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 040-SOIL	E108	04-Sep-2023	22-Sep-2023	30 days	18 days	✓	22-Sep-2023	30 days	18 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 004-SOIL	E108	04-Sep-2023	22-Sep-2023	30 days	19 days	✓	22-Sep-2023	30 days	19 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 014-SOIL	E108	03-Sep-2023	22-Sep-2023	30 days	19 days	✓	22-Sep-2023	30 days	19 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 019-SOIL	E108	03-Sep-2023	22-Sep-2023	30 days	19 days	✓	22-Sep-2023	30 days	19 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*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 024-SOIL	E108	03-Sep-2023	22-Sep-2023	30 days	19 days	✓	22-Sep-2023	30 days	19 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag DUP2-SOIL	E108	04-Sep-2023	22-Sep-2023	30 days	19 days	✓	22-Sep-2023	30 days	19 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag DUP3-SOIL	E108	04-Sep-2023	22-Sep-2023	30 days	19 days	✓	22-Sep-2023	30 days	19 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag DUP4-SOIL	E108	04-Sep-2023	22-Sep-2023	30 days	19 days	✓	22-Sep-2023	30 days	19 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 001-SOIL	E108	02-Sep-2023	22-Sep-2023	30 days	20 days	✓	22-Sep-2023	30 days	20 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 006-SOIL	E108	02-Sep-2023	22-Sep-2023	30 days	20 days	✓	22-Sep-2023	30 days	20 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)							
Mercury in Biota by CVAAS (DRY units, Micro)	E511	1175666	1	1	100.0	5.0	✓
Mercury in Biota by CVAAS (DRY units, Routine)	E510	1208322	3	46	6.5	5.0	✓
Mercury in Biota by CVAAS (WET units, Micro)	E511A	1175667	1	1	100.0	5.0	✓
Mercury in Biota by CVAAS (WET units, Routine)	E510A	1208321	3	46	6.5	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	1175661	1	1	100.0	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	1208317	3	46	6.5	5.0	✓
Metals in Biota by CRC ICPMS (WET units, Micro)	E472A	1175663	1	1	100.0	5.0	✓
Metals in Biota by CRC ICPMS (WET units, Routine)	E440A	1208318	3	46	6.5	5.0	✓
Moisture Content by Gravimetry	E144	1146436	3	46	6.5	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	1170475	1	1	100.0	5.0	✓
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag	1175668	1	1	100.0	5.0	✓
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag	1208324	3	46	6.5	5.0	✓
Silver in Biota by CRC ICPMS (WET units, Micro)	E472A.Ag	1175664	1	1	100.0	5.0	✓
Silver in Biota by CRC ICPMS (WET units, Routine)	E440A.Ag	1208319	3	46	6.5	5.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti	1175662	1	1	100.0	5.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti	1208323	3	46	6.5	5.0	✓
Titanium in Biota by CRC ICPMS (WET units, Micro)	E472A.Ti	1175665	1	1	100.0	5.0	✓
Titanium in Biota by CRC ICPMS (WET units, Routine)	E440A.Ti	1208320	3	46	6.5	5.0	✓
Laboratory Control Samples (LCS)							
Mercury in Biota by CVAAS (DRY units, Micro)	E511	1175666	2	1	200.0	10.0	✓
Mercury in Biota by CVAAS (DRY units, Routine)	E510	1208322	6	46	13.0	10.0	✓
Mercury in Biota by CVAAS (WET units, Micro)	E511A	1175667	2	1	200.0	10.0	✓
Mercury in Biota by CVAAS (WET units, Routine)	E510A	1208321	6	46	13.0	10.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	1175661	2	1	200.0	10.0	✓
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	1208317	6	46	13.0	10.0	✓
Metals in Biota by CRC ICPMS (WET units, Micro)	E472A	1175663	2	1	200.0	10.0	✓
Metals in Biota by CRC ICPMS (WET units, Routine)	E440A	1208318	6	46	13.0	10.0	✓
Moisture Content by Gravimetry	E144	1146436	3	46	6.5	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	1170475	1	1	100.0	5.0	✓
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag	1175668	2	1	200.0	10.0	✓
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag	1208324	6	46	13.0	10.0	✓
Silver in Biota by CRC ICPMS (WET units, Micro)	E472A.Ag	1175664	2	1	200.0	10.0	✓
Silver in Biota by CRC ICPMS (WET units, Routine)	E440A.Ag	1208319	6	46	13.0	10.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti	1175662	2	1	200.0	10.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti	1208323	6	46	13.0	10.0	✓
Titanium in Biota by CRC ICPMS (WET units, Micro)	E472A.Ti	1175665	2	1	200.0	10.0	✓

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) - Continued							
Titanium in Biota by CRC ICPMS (WET units, Routine)	E440A.Ti	1208320	6	46	13.0	10.0	✓
Method Blanks (MB)							
Mercury in Biota by CVAAS (DRY units, Micro)	E511	1175666	1	1	100.0	5.0	✓
Mercury in Biota by CVAAS (DRY units, Routine)	E510	1208322	3	46	6.5	5.0	✓
Mercury in Biota by CVAAS (WET units, Micro)	E511A	1175667	1	1	100.0	5.0	✓
Mercury in Biota by CVAAS (WET units, Routine)	E510A	1208321	3	46	6.5	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	1175661	1	1	100.0	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	1208317	3	46	6.5	5.0	✓
Metals in Biota by CRC ICPMS (WET units, Micro)	E472A	1175663	1	1	100.0	5.0	✓
Metals in Biota by CRC ICPMS (WET units, Routine)	E440A	1208318	3	46	6.5	5.0	✓
Moisture Content by Gravimetry	E144	1146436	3	46	6.5	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	1170475	1	1	100.0	5.0	✓
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag	1175668	1	1	100.0	5.0	✓
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag	1208324	3	46	6.5	5.0	✓
Silver in Biota by CRC ICPMS (WET units, Micro)	E472A.Ag	1175664	1	1	100.0	5.0	✓
Silver in Biota by CRC ICPMS (WET units, Routine)	E440A.Ag	1208319	3	46	6.5	5.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti	1175662	1	1	100.0	5.0	✓
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti	1208323	3	46	6.5	5.0	✓
Titanium in Biota by CRC ICPMS (WET units, Micro)	E472A.Ti	1175665	1	1	100.0	5.0	✓
Titanium in Biota by CRC ICPMS (WET units, Routine)	E440A.Ti	1208320	3	46	6.5	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)							
CSSC Particle Size Classification by Hydrometer	E180	1147979	2	35	5.7	5.0	✓
Mercury in Soil/Solid by CVAAS	E510	1146721	2	36	5.5	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	1146722	2	36	5.5	5.0	✓
pH by Meter (1:2 Soil:Water Extraction)	E108	1146723	2	36	5.5	5.0	✓
Total Carbon by Combustion	E351	1146447	2	40	5.0	5.0	✓
Total Inorganic Carbon by Acetic Acid pH Standard Curve	E354	1146937	2	40	5.0	5.0	✓
Laboratory Control Samples (LCS)							
CSSC Particle Size Classification by Hydrometer	E180	1147979	2	35	5.7	5.0	✓
Mercury in Soil/Solid by CVAAS	E510	1146721	4	36	11.1	10.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	1146722	4	36	11.1	10.0	✓
pH by Meter (1:2 Soil:Water Extraction)	E108	1146723	2	36	5.5	5.0	✓
Total Carbon by Combustion	E351	1146447	4	40	10.0	10.0	✓
Total Inorganic Carbon by Acetic Acid pH Standard Curve	E354	1146937	4	40	10.0	10.0	✓
Method Blanks (MB)							
Mercury in Soil/Solid by CVAAS	E510	1146721	2	36	5.5	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*
Method Blanks (MB) - Continued							
Metals in Soil/Solid by CRC ICPMS	E440	1146722	2	36	5.5	5.0	✓
Total Carbon by Combustion	E351	1146447	2	40	5.0	5.0	✓
Total Inorganic Carbon by Acetic Acid pH Standard Curve	E354	1146937	2	40	5.0	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
Moisture Content by Gravimetry	E144 ALS Environmental - Vancouver	Biota	Puget Sound Water Quality Authority/CCME PHC in Soil - Tier 1	Moisture is measured gravimetrically by drying the sample at 105°C. 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	Puget Sound Water Quality Authority/BC MOE Lab Manual	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 soil, expressed as a percentage.
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440 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.
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag 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.
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti 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 units, Routine)	E440A 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.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Silver in Biota by CRC ICPMS (WET units, Routine)	E440A.Ag 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.
Titanium in Biota by CRC ICPMS (WET units, Routine)	E440A.Ti 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 (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.
Silver in Biota by CRC ICPMS (DRY units, Micro)	E472.Ag 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.
Titanium in Biota by CRC ICPMS (DRY units, Micro)	E472.Ti 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 units, 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.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Silver in Biota by CRC ICPMS (WET units, Micro)	E472A.Ag 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.
Titanium in Biota by CRC ICPMS (WET units, Micro)	E472A.Ti 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 High Resolution 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.
Mercury in Biota by CVAAS (DRY units, Routine)	E510 ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with HNO3, HCl, and H2O2. Analysis is by CVAAS.
Mercury in Biota by CVAAS (WET units, Routine)	E510A ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with HNO3, HCl, and H2O2. Analysis is by CVAAS.
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 units, 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.
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.
CSSC Particle Size Classification by Hydrometer	E180 ALS Environmental - Saskatoon	Soil/Solid	CCME Vol 4 Analytical Methods	A soil sample is disaggregated to pass a 2mm sieve. The <2mm specimen is then further disaggregated using Calgon solution and suspended in solution. Two hydrometer readings are measured at specific times to determine %clay and %silt+clay using the principles of Stokes' law. %silt and %sand are determined mathematically.
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.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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.
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
Metals and Mercury Biota Digestion	EP440 ALS Environmental - Vancouver	Biota	EPA 200.3	This method 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 (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.
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.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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.

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QUALITY CONTROL REPORT

Work Order	: **VA23C2014**	Page	: 1 of 50
Client	: ERM Consultants Canada Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Kimberly San	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 14-Sep-2023 09:30
PO	: 12970	Date Analysis Commenced	: 21-Sep-2023
C-O-C number	: ----	Issue Date	: 01-Nov-2023 11:34
Sampler	: KB, SS ----		
Site	: ----		
Quote number	: VA23-BWGL100-005		
No. of samples received	: 73		
No. of samples analysed	: 73		

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*
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Xihua Yao	Laboratory Analyst	Saskatoon Sask Soils, Saskatoon, Saskatchewan

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: 1146436)											
VA23C2014-002	021-SEDGE	Moisture	----	E144	0.50	%	58.8	55.8	5.21%	20%	----
Physical Tests (QC Lot: 1146441)											
VA23C2014-034	027-WILL	Moisture	----	E144	0.50	%	60.5	62.6	3.50%	20%	----
Physical Tests (QC Lot: 1146442)											
VA23C2014-065	024-SEDGE	Moisture	----	E144	0.50	%	62.6	60.8	2.84%	20%	----
Physical Tests (QC Lot: 1170475)											
VA23C2014-038	006-HUCK	Moisture	----	E144-H	2.0	%	78.1	79.9	2.27%	20%	----
Metals (QC Lot: 1175661)											
VA23C2014-038	006-HUCK	Aluminum	7429-90-5	E472	5.0	mg/kg	53.0	43.3	20.2%	40%	----
		Antimony	7440-36-0	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E472	0.030	mg/kg	4.45	4.04	9.63%	40%	----
		Barium	7440-39-3	E472	0.050	mg/kg	37.8	26.4	35.4%	40%	----
		Beryllium	7440-41-7	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E472	1.0	mg/kg	3.2	2.5	0.7	Diff <2x LOR	----
		Cadmium	7440-43-9	E472	0.010	mg/kg	0.024	0.016	0.009	Diff <2x LOR	----
		Calcium	7440-70-2	E472	20	mg/kg	2210	1560	34.4%	60%	----
		Cesium	7440-46-2	E472	0.0050	mg/kg	0.151	0.114	28.0%	40%	----
		Chromium	7440-47-3	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E472	0.020	mg/kg	0.025	<0.020	0.005	Diff <2x LOR	----
		Copper	7440-50-8	E472	0.20	mg/kg	8.51	5.45	43.8%	40%	DUP-H
		Iron	7439-89-6	E472	5.0	mg/kg	75.9	72.1	5.18%	40%	----
		Lead	7439-92-1	E472	0.050	mg/kg	0.171	0.138	0.033	Diff <2x LOR	----
		Lithium	7439-93-2	E472	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E472	2.0	mg/kg	903	592	41.6%	40%	DUP-H
		Manganese	7439-96-5	E472	0.050	mg/kg	179	89.1	67.1%	40%	DUP-H
		Molybdenum	7439-98-7	E472	0.040	mg/kg	0.225	0.187	18.6%	40%	----
		Nickel	7440-02-0	E472	0.20	mg/kg	0.47	0.31	0.17	Diff <2x LOR	----
		Phosphorus	7723-14-0	E472	10	mg/kg	2310	1750	27.7%	40%	----
		Potassium	7440-09-7	E472	20	mg/kg	8210	6410	24.6%	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: 1175661) - continued											
VA23C2014-038	006-HUCK	Rubidium	7440-17-7	E472	0.050	mg/kg	24.8	18.6	28.5%	40%	----
		Selenium	7782-49-2	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Sodium	7440-23-5	E472	20	mg/kg	<20	<20	0	Diff <2x LOR	----
		Strontium	7440-24-6	E472	0.10	mg/kg	18.0	12.7	34.6%	60%	----
		Tellurium	13494-80-9	E472	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E472	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Tin	7440-31-5	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Uranium	7440-61-1	E472	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Zinc	7440-66-6	E472	1.0	mg/kg	13.8	9.2	39.2%	40%	----
		Zirconium	7440-67-7	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 1175662)											
VA23C2014-038	006-HUCK	Titanium	7440-32-6	E472.Ti	0.50	mg/kg	0.54	0.70	0.16	Diff <2x LOR	----
Metals (QC Lot: 1175663)											
VA23C2014-038	006-HUCK	Aluminum	7429-90-5	E472A	1.0	mg/kg wwt	11.6	9.5	20.2%	40%	----
		Antimony	7440-36-0	E472A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E472A	0.0060	mg/kg wwt	0.974	0.884	9.63%	40%	----
		Barium	7440-39-3	E472A	0.010	mg/kg wwt	8.26	5.78	35.4%	40%	----
		Beryllium	7440-41-7	E472A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E472A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Boron	7440-42-8	E472A	0.20	mg/kg wwt	0.70	0.54	0.16	Diff <2x LOR	----
		Cadmium	7440-43-9	E472A	0.0020	mg/kg wwt	0.0054	0.0034	0.0020	Diff <2x LOR	----
		Calcium	7440-70-2	E472A	4.0	mg/kg wwt	484	342	34.4%	60%	----
		Cesium	7440-46-2	E472A	0.0010	mg/kg wwt	0.0330	0.0249	28.0%	40%	----
		Chromium	7440-47-3	E472A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E472A	0.0040	mg/kg wwt	0.0056	0.0042	0.0013	Diff <2x LOR	----
		Copper	7440-50-8	E472A	0.040	mg/kg wwt	1.86	1.19	43.8%	40%	DUP-H
		Iron	7439-89-6	E472A	1.0	mg/kg wwt	16.6	15.8	5.18%	40%	----
		Lead	7439-92-1	E472A	0.010	mg/kg wwt	0.038	0.030	0.007	Diff <2x LOR	----
		Lithium	7439-93-2	E472A	0.10	mg/kg wwt	<0.10	<0.10	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E472A	0.40	mg/kg wwt	198	130	41.6%	40%	DUP-H
		Manganese	7439-96-5	E472A	0.010	mg/kg wwt	39.2	19.5	67.1%	40%	DUP-H
		Molybdenum	7439-98-7	E472A	0.0080	mg/kg wwt	0.0493	0.0409	18.6%	40%	----
		Nickel	7440-02-0	E472A	0.040	mg/kg wwt	0.104	0.067	0.036	Diff <2x LOR	----

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: 1175663) - continued											
VA23C2014-038	006-HUCK	Phosphorus	7723-14-0	E472A	2.0	mg/kg wwt	506	383	27.7%	40%	----
		Potassium	7440-09-7	E472A	4.0	mg/kg wwt	1800	1400	24.6%	40%	----
		Rubidium	7440-17-7	E472A	0.010	mg/kg wwt	5.42	4.07	28.5%	40%	----
		Selenium	7782-49-2	E472A	0.020	mg/kg wwt	<0.020	<0.020	0	Diff <2x LOR	----
		Sodium	7440-23-5	E472A	4.0	mg/kg wwt	<4.0	<4.0	0	Diff <2x LOR	----
		Strontium	7440-24-6	E472A	0.020	mg/kg wwt	3.95	2.78	34.6%	60%	----
		Tellurium	13494-80-9	E472A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Thallium	7440-28-0	E472A	0.00040	mg/kg wwt	<0.00040	<0.00040	0	Diff <2x LOR	----
		Tin	7440-31-5	E472A	0.020	mg/kg wwt	<0.020	<0.020	0	Diff <2x LOR	----
		Uranium	7440-61-1	E472A	0.00040	mg/kg wwt	<0.00040	<0.00040	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E472A	0.020	mg/kg wwt	<0.020	<0.020	0	Diff <2x LOR	----
		Zinc	7440-66-6	E472A	0.20	mg/kg wwt	3.01	2.03	39.2%	40%	----
		Zirconium	7440-67-7	E472A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
Metals (QC Lot: 1175664)											
VA23C2014-038	006-HUCK	Silver	7440-22-4	E472A.Ag	0.0010	mg/kg wwt	<0.0010	<0.0010	0	Diff <2x LOR	----
Metals (QC Lot: 1175665)											
VA23C2014-038	006-HUCK	Titanium	7440-32-6	E472A.Ti	0.10	mg/kg wwt	0.12	0.15	0.04	Diff <2x LOR	----
Metals (QC Lot: 1175666)											
VA23C2014-038	006-HUCK	Mercury	7439-97-6	E511	0.0050	mg/kg	<0.0050	0.0051	0.00009	Diff <2x LOR	----
Metals (QC Lot: 1175667)											
VA23C2014-038	006-HUCK	Mercury	7439-97-6	E511A	0.0010	mg/kg wwt	0.0011	0.0011	0.00003	Diff <2x LOR	----
Metals (QC Lot: 1175668)											
VA23C2014-038	006-HUCK	Silver	7440-22-4	E472.Ag	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
Metals (QC Lot: 1208317)											
VA23C2014-002	021-SEDGE	Aluminum	7429-90-5	E440	2.0	mg/kg	20.4	19.7	3.53%	40%	----
		Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.020	0.022	0.001	Diff <2x LOR	----
		Barium	7440-39-3	E440	0.050	mg/kg	51.9	53.0	2.10%	40%	----
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E440	1.0	mg/kg	5.1	4.9	4.71%	40%	----
		Cadmium	7440-43-9	E440	0.0050	mg/kg	0.0345	0.0363	5.32%	40%	----
		Calcium	7440-70-2	E440	20	mg/kg	5310	5190	2.15%	60%	----
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.0720	0.0738	2.39%	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: 1208317) - continued											
VA23C2014-002	021-SEDGE	Chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E440	0.020	mg/kg	0.055	0.058	0.004	Diff <2x LOR	----
		Copper	7440-50-8	E440	0.10	mg/kg	5.13	5.07	1.16%	40%	----
		Iron	7439-89-6	E440	3.0	mg/kg	64.9	61.1	6.01%	40%	----
		Lead	7439-92-1	E440	0.020	mg/kg	0.043	0.036	0.006	Diff <2x LOR	----
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	2.0	mg/kg	1680	1650	1.71%	40%	----
		Manganese	7439-96-5	E440	0.050	mg/kg	566	569	0.597%	40%	----
		Molybdenum	7439-98-7	E440	0.020	mg/kg	1.62	1.62	0.0271%	40%	----
		Nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440	10	mg/kg	1790	1770	1.09%	40%	----
		Potassium	7440-09-7	E440	20	mg/kg	17200	17000	1.00%	40%	----
		Rubidium	7440-17-7	E440	0.050	mg/kg	9.70	9.79	0.905%	40%	----
		Selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Sodium	7440-23-5	E440	20	mg/kg	20	<20	0.2	Diff <2x LOR	----
		Strontium	7440-24-6	E440	0.050	mg/kg	32.6	32.7	0.160%	60%	----
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Tin	7440-31-5	E440	0.10	mg/kg	0.13	0.12	0.01	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Zinc	7440-66-6	E440	0.50	mg/kg	28.2	27.7	2.01%	40%	----
		Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 1208318)											
VA23C2014-002	021-SEDGE	Aluminum	7429-90-5	E440A	0.40	mg/kg wwt	8.42	8.13	3.53%	40%	----
		Antimony	7440-36-0	E440A	0.0020	mg/kg wwt	0.0021	<0.0020	0.0001	Diff <2x LOR	----
		Arsenic	7440-38-2	E440A	0.0040	mg/kg wwt	0.0085	0.0090	0.0006	Diff <2x LOR	----
		Barium	7440-39-3	E440A	0.010	mg/kg wwt	21.4	21.8	2.10%	40%	----
		Beryllium	7440-41-7	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Boron	7440-42-8	E440A	0.20	mg/kg wwt	2.12	2.02	4.71%	40%	----
		Cadmium	7440-43-9	E440A	0.0010	mg/kg wwt	0.0142	0.0150	5.32%	40%	----
		Calcium	7440-70-2	E440A	4.0	mg/kg wwt	2180	2140	2.15%	60%	----
		Cesium	7440-46-2	E440A	0.0010	mg/kg wwt	0.0297	0.0304	2.39%	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: 1208318) - continued											
VA23C2014-002	021-SEDGE	Chromium	7440-47-3	E440A	0.010	mg/kg wwt	0.017	0.013	0.004	Diff <2x LOR	----
		Cobalt	7440-48-4	E440A	0.0040	mg/kg wwt	0.0225	0.0240	6.29%	40%	----
		Copper	7440-50-8	E440A	0.020	mg/kg wwt	2.11	2.09	1.16%	40%	----
		Iron	7439-89-6	E440A	0.60	mg/kg wwt	26.7	25.2	6.01%	40%	----
		Lead	7439-92-1	E440A	0.0040	mg/kg wwt	0.0176	0.0150	0.0026	Diff <2x LOR	----
		Lithium	7439-93-2	E440A	0.10	mg/kg wwt	<0.10	<0.10	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440A	0.40	mg/kg wwt	693	682	1.71%	40%	----
		Manganese	7439-96-5	E440A	0.010	mg/kg wwt	233	234	0.597%	40%	----
		Molybdenum	7439-98-7	E440A	0.0040	mg/kg wwt	0.668	0.669	0.0271%	40%	----
		Nickel	7440-02-0	E440A	0.040	mg/kg wwt	0.068	0.063	0.004	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440A	2.0	mg/kg wwt	736	728	1.09%	40%	----
		Potassium	7440-09-7	E440A	4.0	mg/kg wwt	7090	7020	1.00%	40%	----
		Rubidium	7440-17-7	E440A	0.010	mg/kg wwt	4.00	4.03	0.905%	40%	----
		Selenium	7782-49-2	E440A	0.010	mg/kg wwt	<0.010	<0.010	0	Diff <2x LOR	----
		Sodium	7440-23-5	E440A	4.0	mg/kg wwt	8.3	7.6	0.7	Diff <2x LOR	----
		Strontium	7440-24-6	E440A	0.010	mg/kg wwt	13.4	13.4	0.160%	60%	----
		Tellurium	13494-80-9	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440A	0.00040	mg/kg wwt	0.00059	0.00066	0.00008	Diff <2x LOR	----
		Tin	7440-31-5	E440A	0.020	mg/kg wwt	0.055	0.050	0.004	Diff <2x LOR	----
		Uranium	7440-61-1	E440A	0.00040	mg/kg wwt	<0.00040	<0.00040	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E440A	0.020	mg/kg wwt	<0.020	<0.020	0	Diff <2x LOR	----
		Zinc	7440-66-6	E440A	0.10	mg/kg wwt	11.6	11.4	2.01%	40%	----
		Zirconium	7440-67-7	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
Metals (QC Lot: 1208319)											
VA23C2014-002	021-SEDGE	Silver	7440-22-4	E440A.Ag	0.0010	mg/kg wwt	0.0036	0.0037	0.00007	Diff <2x LOR	----
Metals (QC Lot: 1208320)											
VA23C2014-002	021-SEDGE	Titanium	7440-32-6	E440A.Ti	0.050	mg/kg wwt	0.436	0.366	17.5%	40%	----
Metals (QC Lot: 1208321)											
VA23C2014-002	021-SEDGE	Mercury	7439-97-6	E510A	0.0011	mg/kg wwt	0.0029	0.0031	0.0002	Diff <2x LOR	----
Metals (QC Lot: 1208322)											
VA23C2014-002	021-SEDGE	Mercury	7439-97-6	E510	0.0050	mg/kg	0.0071	0.0076	0.0004	Diff <2x LOR	----
Metals (QC Lot: 1208323)											
VA23C2014-002	021-SEDGE	Titanium	7440-32-6	E440.Ti	0.25	mg/kg	1.06	0.89	0.17	Diff <2x LOR	----
Metals (QC Lot: 1208324)											

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: 1208324) - continued											
VA23C2014-002	021-SEDGE	Silver	7440-22-4	E440.Ag	0.0050	mg/kg	0.0088	0.0090	0.0002	Diff <2x LOR	----
Metals (QC Lot: 1208328)											
VA23C2014-034	027-WILL	Aluminum	7429-90-5	E440	2.0	mg/kg	35.4	35.7	0.818%	40%	----
		Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.036	0.053	0.017	Diff <2x LOR	----
		Barium	7440-39-3	E440	0.050	mg/kg	77.6	84.4	8.38%	40%	----
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E440	1.0	mg/kg	58.8	58.9	0.240%	40%	----
		Cadmium	7440-43-9	E440	0.0050	mg/kg	2.68	2.68	0.141%	40%	----
		Calcium	7440-70-2	E440	20	mg/kg	23200	23200	0.0454%	60%	----
		Cesium	7440-46-2	E440	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		Chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E440	0.020	mg/kg	1.62	1.60	1.40%	40%	----
		Copper	7440-50-8	E440	0.10	mg/kg	3.72	3.71	0.149%	40%	----
		Iron	7439-89-6	E440	3.0	mg/kg	74.1	73.4	0.977%	40%	----
		Lead	7439-92-1	E440	0.020	mg/kg	0.046	0.045	0.001	Diff <2x LOR	----
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	2.0	mg/kg	2380	2420	1.32%	40%	----
		Manganese	7439-96-5	E440	0.050	mg/kg	491	492	0.224%	40%	----
		Molybdenum	7439-98-7	E440	0.020	mg/kg	0.515	0.519	0.804%	40%	----
		Nickel	7440-02-0	E440	0.20	mg/kg	2.64	2.72	3.22%	40%	----
		Phosphorus	7723-14-0	E440	10	mg/kg	4690	4770	1.77%	40%	----
		Potassium	7440-09-7	E440	20	mg/kg	12700	12700	0.543%	40%	----
		Rubidium	7440-17-7	E440	0.050	mg/kg	2.24	2.26	0.810%	40%	----
		Selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Sodium	7440-23-5	E440	20	mg/kg	<20	<20	0	Diff <2x LOR	----
		Strontium	7440-24-6	E440	0.050	mg/kg	201	194	3.66%	60%	----
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Zinc	7440-66-6	E440	0.50	mg/kg	148	149	0.810%	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: 1208328) - continued											
VA23C2014-034	027-WILL	Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 1208329)											
VA23C2014-034	027-WILL	Aluminum	7429-90-5	E440A	0.40	mg/kg wwt	14.0	14.1	0.818%	40%	----
		Antimony	7440-36-0	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440A	0.0040	mg/kg wwt	0.0144	0.0210	0.0066	Diff <2x LOR	----
		Barium	7440-39-3	E440A	0.010	mg/kg wwt	30.7	33.3	8.38%	40%	----
		Beryllium	7440-41-7	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Boron	7440-42-8	E440A	0.20	mg/kg wwt	23.2	23.3	0.240%	40%	----
		Cadmium	7440-43-9	E440A	0.0010	mg/kg wwt	1.06	1.06	0.141%	40%	----
		Calcium	7440-70-2	E440A	4.0	mg/kg wwt	9170	9160	0.0454%	60%	----
		Cesium	7440-46-2	E440A	0.0010	mg/kg wwt	0.0016	0.0015	0.00003	Diff <2x LOR	----
		Chromium	7440-47-3	E440A	0.010	mg/kg wwt	0.016	0.014	0.002	Diff <2x LOR	----
		Cobalt	7440-48-4	E440A	0.0040	mg/kg wwt	0.640	0.631	1.40%	40%	----
		Copper	7440-50-8	E440A	0.020	mg/kg wwt	1.47	1.47	0.149%	40%	----
		Iron	7439-89-6	E440A	0.60	mg/kg wwt	29.3	29.0	0.977%	40%	----
		Lead	7439-92-1	E440A	0.0040	mg/kg wwt	0.0181	0.0176	0.0005	Diff <2x LOR	----
		Lithium	7439-93-2	E440A	0.10	mg/kg wwt	<0.10	<0.10	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440A	0.40	mg/kg wwt	942	954	1.32%	40%	----
		Manganese	7439-96-5	E440A	0.010	mg/kg wwt	194	194	0.224%	40%	----
		Molybdenum	7439-98-7	E440A	0.0040	mg/kg wwt	0.204	0.205	0.804%	40%	----
		Nickel	7440-02-0	E440A	0.040	mg/kg wwt	1.04	1.08	3.22%	40%	----
		Phosphorus	7723-14-0	E440A	2.0	mg/kg wwt	1850	1880	1.77%	40%	----
		Potassium	7440-09-7	E440A	4.0	mg/kg wwt	5000	5030	0.543%	40%	----
		Rubidium	7440-17-7	E440A	0.010	mg/kg wwt	0.885	0.892	0.810%	40%	----
		Selenium	7782-49-2	E440A	0.010	mg/kg wwt	<0.010	0.010	0.0002	Diff <2x LOR	----
		Sodium	7440-23-5	E440A	4.0	mg/kg wwt	<4.0	<4.0	0	Diff <2x LOR	----
		Strontium	7440-24-6	E440A	0.010	mg/kg wwt	79.6	76.7	3.66%	60%	----
		Tellurium	13494-80-9	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440A	0.00040	mg/kg wwt	<0.00040	<0.00040	0	Diff <2x LOR	----
		Tin	7440-31-5	E440A	0.020	mg/kg wwt	<0.020	<0.020	0	Diff <2x LOR	----
		Uranium	7440-61-1	E440A	0.00040	mg/kg wwt	<0.00040	<0.00040	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E440A	0.020	mg/kg wwt	0.025	0.024	0.0009	Diff <2x LOR	----
		Zinc	7440-66-6	E440A	0.10	mg/kg wwt	58.6	59.0	0.810%	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: 1208329) - continued											
VA23C2014-034	027-WILL	Zirconium	7440-67-7	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
Metals (QC Lot: 1208333)											
VA23C2014-034	027-WILL	Silver	7440-22-4	E440A.Ag	0.0010	mg/kg wwt	0.0033	0.0033	0.00007	Diff <2x LOR	----
Metals (QC Lot: 1208334)											
VA23C2014-034	027-WILL	Titanium	7440-32-6	E440A.Ti	0.050	mg/kg wwt	0.534	0.515	3.55%	40%	----
Metals (QC Lot: 1208335)											
VA23C2014-034	027-WILL	Mercury	7439-97-6	E510A	0.0011	mg/kg wwt	0.0048	0.0050	0.0002	Diff <2x LOR	----
Metals (QC Lot: 1208336)											
VA23C2014-034	027-WILL	Mercury	7439-97-6	E510	0.0050	mg/kg	0.0122	0.0128	0.0006	Diff <2x LOR	----
Metals (QC Lot: 1208337)											
VA23C2014-034	027-WILL	Titanium	7440-32-6	E440.Ti	0.25	mg/kg	1.35	1.30	3.55%	40%	----
Metals (QC Lot: 1208338)											
VA23C2014-034	027-WILL	Silver	7440-22-4	E440.Ag	0.0050	mg/kg	0.0085	0.0083	0.0002	Diff <2x LOR	----
Metals (QC Lot: 1208346)											
VA23C2014-058	004-SEDGE	Aluminum	7429-90-5	E440	2.0	mg/kg	43.3	38.1	12.6%	40%	----
		Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.358	0.291	20.5%	40%	----
		Barium	7440-39-3	E440	0.050	mg/kg	27.7	27.8	0.343%	40%	----
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E440	1.0	mg/kg	7.9	7.9	0.322%	40%	----
		Cadmium	7440-43-9	E440	0.0050	mg/kg	0.0124	0.0112	0.0012	Diff <2x LOR	----
		Calcium	7440-70-2	E440	20	mg/kg	3740	3830	2.42%	60%	----
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.380	0.381	0.184%	40%	----
		Chromium	7440-47-3	E440	0.050	mg/kg	0.079	0.070	0.009	Diff <2x LOR	----
		Cobalt	7440-48-4	E440	0.020	mg/kg	0.313	0.304	3.06%	40%	----
		Copper	7440-50-8	E440	0.10	mg/kg	4.51	4.53	0.502%	40%	----
		Iron	7439-89-6	E440	3.0	mg/kg	180	171	5.22%	40%	----
		Lead	7439-92-1	E440	0.020	mg/kg	0.053	0.049	0.003	Diff <2x LOR	----
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	2.0	mg/kg	1080	1070	0.931%	40%	----
		Manganese	7439-96-5	E440	0.050	mg/kg	547	520	5.06%	40%	----
		Molybdenum	7439-98-7	E440	0.020	mg/kg	1.58	1.56	1.18%	40%	----
		Nickel	7440-02-0	E440	0.20	mg/kg	0.33	0.32	0.02	Diff <2x LOR	----

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: 1208346) - continued											
VA23C2014-058	004-SEDGE	Phosphorus	7723-14-0	E440	10	mg/kg	3010	2970	1.20%	40%	----
		Potassium	7440-09-7	E440	20	mg/kg	19300	19400	0.655%	40%	----
		Rubidium	7440-17-7	E440	0.050	mg/kg	18.3	18.3	0.179%	40%	----
		Selenium	7782-49-2	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Sodium	7440-23-5	E440	20	mg/kg	<20	<20	0	Diff <2x LOR	----
		Strontium	7440-24-6	E440	0.050	mg/kg	22.3	22.1	1.04%	60%	----
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Tin	7440-31-5	E440	0.10	mg/kg	0.12	0.11	0.006	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E440	0.10	mg/kg	0.11	<0.10	0.01	Diff <2x LOR	----
		Zinc	7440-66-6	E440	0.50	mg/kg	29.8	29.2	2.37%	40%	----
		Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 1208347)											
VA23C2014-058	004-SEDGE	Aluminum	7429-90-5	E440A	0.40	mg/kg wwt	14.1	12.5	12.6%	40%	----
		Antimony	7440-36-0	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440A	0.0040	mg/kg wwt	0.117	0.0951	20.5%	40%	----
		Barium	7440-39-3	E440A	0.010	mg/kg wwt	9.05	9.08	0.343%	40%	----
		Beryllium	7440-41-7	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Boron	7440-42-8	E440A	0.20	mg/kg wwt	2.58	2.58	0.322%	40%	----
		Cadmium	7440-43-9	E440A	0.0010	mg/kg wwt	0.0041	0.0037	0.0004	Diff <2x LOR	----
		Calcium	7440-70-2	E440A	4.0	mg/kg wwt	1220	1250	2.42%	60%	----
		Cesium	7440-46-2	E440A	0.0010	mg/kg wwt	0.124	0.124	0.184%	40%	----
		Chromium	7440-47-3	E440A	0.010	mg/kg wwt	0.026	0.023	0.003	Diff <2x LOR	----
		Cobalt	7440-48-4	E440A	0.0040	mg/kg wwt	0.102	0.0993	3.06%	40%	----
		Copper	7440-50-8	E440A	0.020	mg/kg wwt	1.47	1.48	0.502%	40%	----
		Iron	7439-89-6	E440A	0.60	mg/kg wwt	58.8	55.8	5.22%	40%	----
		Lead	7439-92-1	E440A	0.0040	mg/kg wwt	0.0172	0.0161	0.0011	Diff <2x LOR	----
		Lithium	7439-93-2	E440A	0.10	mg/kg wwt	<0.10	<0.10	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440A	0.40	mg/kg wwt	354	351	0.931%	40%	----
		Manganese	7439-96-5	E440A	0.010	mg/kg wwt	179	170	5.06%	40%	----
		Molybdenum	7439-98-7	E440A	0.0040	mg/kg wwt	0.517	0.511	1.18%	40%	----
		Nickel	7440-02-0	E440A	0.040	mg/kg wwt	0.108	0.103	0.005	Diff <2x LOR	----

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: 1208347) - continued											
VA23C2014-058	004-SEDGE	Phosphorus	7723-14-0	E440A	2.0	mg/kg wwt	983	971	1.20%	40%	----
		Potassium	7440-09-7	E440A	4.0	mg/kg wwt	6310	6350	0.655%	40%	----
		Rubidium	7440-17-7	E440A	0.010	mg/kg wwt	5.98	5.97	0.179%	40%	----
		Selenium	7782-49-2	E440A	0.010	mg/kg wwt	<0.010	<0.010	0	Diff <2x LOR	----
		Sodium	7440-23-5	E440A	4.0	mg/kg wwt	6.3	6.2	0.1	Diff <2x LOR	----
		Strontium	7440-24-6	E440A	0.010	mg/kg wwt	7.28	7.21	1.04%	60%	----
		Tellurium	13494-80-9	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440A	0.00040	mg/kg wwt	<0.00040	<0.00040	0	Diff <2x LOR	----
		Tin	7440-31-5	E440A	0.020	mg/kg wwt	0.039	0.037	0.002	Diff <2x LOR	----
		Uranium	7440-61-1	E440A	0.00040	mg/kg wwt	0.00060	0.00052	0.00007	Diff <2x LOR	----
		Vanadium	7440-62-2	E440A	0.020	mg/kg wwt	0.037	0.031	0.006	Diff <2x LOR	----
		Zinc	7440-66-6	E440A	0.10	mg/kg wwt	9.75	9.52	2.37%	40%	----
		Zirconium	7440-67-7	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
Metals (QC Lot: 1208348)											
VA23C2014-058	004-SEDGE	Silver	7440-22-4	E440A.Ag	0.0010	mg/kg wwt	0.0038	0.0031	0.0006	Diff <2x LOR	----
Metals (QC Lot: 1208349)											
VA23C2014-058	004-SEDGE	Titanium	7440-32-6	E440A.Ti	0.050	mg/kg wwt	0.814	0.664	20.4%	40%	----
Metals (QC Lot: 1208350)											
VA23C2014-058	004-SEDGE	Mercury	7439-97-6	E510A	0.0013	mg/kg wwt	0.0022	0.0020	0.0001	Diff <2x LOR	----
Metals (QC Lot: 1208351)											
VA23C2014-058	004-SEDGE	Mercury	7439-97-6	E510	0.0050	mg/kg	0.0066	0.0062	0.0004	Diff <2x LOR	----
Metals (QC Lot: 1208352)											
VA23C2014-058	004-SEDGE	Titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.49	2.03	20.4%	40%	----
Metals (QC Lot: 1208353)											
VA23C2014-058	004-SEDGE	Silver	7440-22-4	E440.Ag	0.0050	mg/kg	0.0116	0.0096	0.0020	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*
Physical Tests (QC Lot: 1146723)											
VA23C2014-001	021-SOIL	pH (1:2 soil:water)	----	E108	0.10	pH units	6.70	6.67	0.4%	5%	----
Physical Tests (QC Lot: 1147159)											
VA23C1805-021	Anonymous	pH (1:2 soil:water)	----	E108	0.10	pH units	7.77	7.96	2.4%	5%	----
Particle Size (QC Lot: 1147979)											
FC2302692-001	Anonymous	Clay (<0.002mm)	----	E180	1.0	%	34.5	34.9	1.18%	10%	----

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*
Particle Size (QC Lot: 1147979) - continued											
FC2302692-001	Anonymous	Sand (2.0mm - 0.05mm)	----	E180	1.0	%	13.3	14.2	1.0	Diff <2x LOR	----
		Silt (0.05mm - 0.002mm)	----	E180	1.0	%	52.2	50.8	2.72%	10%	----
Particle Size (QC Lot: 1147997)											
FC2302657-004	Anonymous	Clay (<0.002mm)	----	E180	1.0	%	24.5	25.2	2.79%	10%	----
		Sand (2.0mm - 0.05mm)	----	E180	1.0	%	54.2	54.8	1.09%	10%	----
		Silt (0.05mm - 0.002mm)	----	E180	1.0	%	21.3	20.0	6.21%	10%	----
Organic / Inorganic Carbon (QC Lot: 1146447)											
VA23C2014-008	010-SOIL	Carbon, total [TC]	----	E351	0.050	%	8.49	8.56	0.807%	20%	----
Organic / Inorganic Carbon (QC Lot: 1146937)											
VA23C2014-001	021-SOIL	Carbon, inorganic [IC]	----	E354	0.050	%	0.588	0.634	7.54%	20%	----
Organic / Inorganic Carbon (QC Lot: 1149329)											
CG2313164-001	Anonymous	Carbon, inorganic [IC]	----	E354	0.050	%	1.13	1.13	0.259%	20%	----
Organic / Inorganic Carbon (QC Lot: 1150037)											
CG2313164-001	Anonymous	Carbon, total [TC]	----	E351	0.050	%	3.09	3.13	1.35%	20%	----
Metals (QC Lot: 1146721)											
VA23C2014-001	021-SOIL	Mercury	7439-97-6	E510	0.0050	mg/kg	0.102	0.113	10.9%	40%	----
Metals (QC Lot: 1146722)											
VA23C2014-001	021-SOIL	Aluminum	7429-90-5	E440	50	mg/kg	263	262	0.444%	40%	----
		Antimony	7440-36-0	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.10	mg/kg	1.97	1.03	62.5%	30%	DUP-H
		Barium	7440-39-3	E440	0.50	mg/kg	159	201	23.2%	40%	----
		Beryllium	7440-41-7	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		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	5.3	6.4	1.0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.020	mg/kg	0.164	0.178	8.28%	30%	----
		Calcium	7440-70-2	E440	50	mg/kg	29400	32100	8.78%	30%	----
		Chromium	7440-47-3	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E440	0.10	mg/kg	1.47	1.54	4.67%	30%	----
		Copper	7440-50-8	E440	0.50	mg/kg	2.01	2.10	0.09	Diff <2x LOR	----
		Iron	7439-89-6	E440	50	mg/kg	6250	3900	46.4%	30%	DUP-H
		Lead	7439-92-1	E440	0.50	mg/kg	0.85	0.91	0.07	Diff <2x LOR	----
		Lithium	7439-93-2	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	20	mg/kg	2700	2870	6.26%	30%	----
		Manganese	7439-96-5	E440	1.0	mg/kg	4010	5030	22.6%	30%	----

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: 1146722) - continued											
VA23C2014-001	021-SOIL	Molybdenum	7439-98-7	E440	0.10	mg/kg	2.84	3.24	13.1%	40%	----
		Nickel	7440-02-0	E440	0.50	mg/kg	0.68	0.63	0.05	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440	50	mg/kg	708	778	9.49%	30%	----
		Potassium	7440-09-7	E440	100	mg/kg	360	440	80	Diff <2x LOR	----
		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	82	85	3	Diff <2x LOR	----
		Strontium	7440-24-6	E440	0.50	mg/kg	156	173	10.2%	40%	----
		Sulfur	7704-34-9	E440	1000	mg/kg	1300	1600	300	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	3.1	3.6	0.5	Diff <2x LOR	----
		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	<0.050	<0.050	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E440	0.20	mg/kg	0.91	0.68	0.23	Diff <2x LOR	----
		Zinc	7440-66-6	E440	2.0	mg/kg	4.0	4.6	0.6	Diff <2x LOR	----
		Zirconium	7440-67-7	E440	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
Metals (QC Lot: 1147154)											
VA23C1805-021	Anonymous	Aluminum	7429-90-5	E440	50	mg/kg	9250	8810	4.84%	40%	----
		Antimony	7440-36-0	E440	0.10	mg/kg	0.96	0.87	10.00%	30%	----
		Arsenic	7440-38-2	E440	0.10	mg/kg	54.0	48.8	10.1%	30%	----
		Barium	7440-39-3	E440	0.50	mg/kg	88.1	79.8	9.90%	40%	----
		Beryllium	7440-41-7	E440	0.10	mg/kg	0.28	0.30	0.02	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.20	mg/kg	0.85	0.76	0.10	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	0.199	0.197	1.00%	30%	----
		Calcium	7440-70-2	E440	50	mg/kg	4960	4920	0.733%	30%	----
		Chromium	7440-47-3	E440	0.50	mg/kg	18.2	16.0	13.0%	30%	----
		Cobalt	7440-48-4	E440	0.10	mg/kg	18.1	17.3	4.67%	30%	----
		Copper	7440-50-8	E440	0.50	mg/kg	39.1	37.4	4.35%	30%	----
		Iron	7439-89-6	E440	50	mg/kg	45700	44900	1.89%	30%	----
		Lead	7439-92-1	E440	0.50	mg/kg	24.7	24.6	0.409%	40%	----
		Lithium	7439-93-2	E440	2.0	mg/kg	8.5	8.4	0.05	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	20	mg/kg	3190	3210	0.682%	30%	----

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: 1147154) - continued											
VA23C1805-021	Anonymous	Manganese	7439-96-5	E440	1.0	mg/kg	967	923	4.66%	30%	----
		Molybdenum	7439-98-7	E440	0.10	mg/kg	0.95	0.98	3.01%	40%	----
		Nickel	7440-02-0	E440	0.50	mg/kg	41.9	40.7	2.78%	30%	----
		Phosphorus	7723-14-0	E440	50	mg/kg	623	593	4.98%	30%	----
		Potassium	7440-09-7	E440	100	mg/kg	870	840	2.36%	40%	----
		Selenium	7782-49-2	E440	0.20	mg/kg	0.28	0.21	0.07	Diff <2x LOR	----
		Silver	7440-22-4	E440	0.10	mg/kg	0.31	0.25	0.06	Diff <2x LOR	----
		Sodium	7440-23-5	E440	50	mg/kg	56	52	4	Diff <2x LOR	----
		Strontium	7440-24-6	E440	0.50	mg/kg	28.1	29.9	6.39%	40%	----
		Sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.050	mg/kg	0.054	0.058	0.004	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	189	192	1.66%	40%	----
		Tungsten	7440-33-7	E440	0.50	mg/kg	0.85	0.64	0.21	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.050	mg/kg	1.07	0.972	9.36%	30%	----
		Vanadium	7440-62-2	E440	0.20	mg/kg	22.2	20.8	6.78%	30%	----
		Zinc	7440-66-6	E440	2.0	mg/kg	89.0	85.0	4.52%	30%	----
		Zirconium	7440-67-7	E440	1.0	mg/kg	4.4	4.6	0.2	Diff <2x LOR	----
Metals (QC Lot: 1147155)											
VA23C1805-021	Anonymous	Mercury	7439-97-6	E510	0.0500	mg/kg	<0.0500	<0.0500	0	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: 1146436)						
Moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 1146441)						
Moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 1146442)						
Moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 1170475)						
Moisture	----	E144-H	2	%	<2.0	----
Metals (QCLot: 1175661)						
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	----
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	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1175661) - continued						
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: 1175662)						
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	<0.50	----
Metals (QCLot: 1175663)						
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	----
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	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1175663) - continued						
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: 1175664)						
Silver	7440-22-4	E472A.Ag	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1175665)						
Titanium	7440-32-6	E472A.Ti	0.1	mg/kg wwt	<0.10	----
Metals (QCLot: 1175666)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1175667)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1175668)						
Silver	7440-22-4	E472.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1208317)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E440	1	mg/kg	<1.0	----
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
Calcium	7440-70-2	E440	20	mg/kg	<20	----
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
Iron	7439-89-6	E440	3	mg/kg	<3.0	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1208317) - continued						
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
Phosphorus	7723-14-0	E440	10	mg/kg	<10	----
Potassium	7440-09-7	E440	20	mg/kg	<20	----
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
Sodium	7440-23-5	E440	20	mg/kg	<20	----
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 1208318)						
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	<0.40	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	<0.0020	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	<0.0040	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	<0.010	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	<0.0020	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	<0.0020	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	<0.20	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	<0.0010	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	<4.0	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	<0.0010	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	<0.010	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	<0.0040	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	<0.020	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	<0.60	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	<0.0040	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1208318) - continued						
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	<0.10	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	<0.40	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	<0.010	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	<0.0040	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	<0.040	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	<2.0	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	<4.0	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	<0.010	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	<0.010	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	<4.0	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	<0.010	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	<0.0040	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	<0.00040	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	<0.020	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	<0.00040	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	<0.020	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	<0.10	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	<0.040	----
Metals (QCLot: 1208319)						
Silver	7440-22-4	E440A.Ag	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1208320)						
Titanium	7440-32-6	E440A.Ti	0.05	mg/kg wwt	<0.050	----
Metals (QCLot: 1208321)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1208322)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1208323)						
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	----
Metals (QCLot: 1208324)						
Silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1208328)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1208328) - continued						
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E440	1	mg/kg	<1.0	----
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
Calcium	7440-70-2	E440	20	mg/kg	<20	----
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
Iron	7439-89-6	E440	3	mg/kg	<3.0	----
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
Phosphorus	7723-14-0	E440	10	mg/kg	<10	----
Potassium	7440-09-7	E440	20	mg/kg	<20	----
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
Sodium	7440-23-5	E440	20	mg/kg	<20	----
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 1208329)						
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	<0.40	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	<0.0020	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	<0.0040	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	<0.010	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	<0.0020	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1208329) - continued						
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	<0.0020	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	<0.20	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	<0.0010	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	<4.0	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	<0.0010	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	<0.010	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	<0.0040	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	<0.020	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	<0.60	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	<0.0040	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	<0.10	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	<0.40	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	<0.010	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	<0.0040	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	<0.040	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	<2.0	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	<4.0	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	<0.010	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	<0.010	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	<4.0	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	<0.010	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	<0.0040	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	<0.00040	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	<0.020	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	<0.00040	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	<0.020	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	<0.10	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	<0.040	----
Metals (QCLot: 1208333)						
Silver	7440-22-4	E440A.Ag	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1208334)						
Titanium	7440-32-6	E440A.Ti	0.05	mg/kg wwt	<0.050	----
Metals (QCLot: 1208335)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1208336)						

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1208336) - continued						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1208337)						
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	----
Metals (QCLot: 1208338)						
Silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1208346)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E440	1	mg/kg	<1.0	----
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
Calcium	7440-70-2	E440	20	mg/kg	<20	----
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
Iron	7439-89-6	E440	3	mg/kg	<3.0	----
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
Manganese	7439-96-5	E440	0.05	mg/kg	# 0.080	B
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
Phosphorus	7723-14-0	E440	10	mg/kg	<10	----
Potassium	7440-09-7	E440	20	mg/kg	<20	----
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
Sodium	7440-23-5	E440	20	mg/kg	<20	----
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1208346) - continued						
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 1208347)						
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	<0.40	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	<0.0020	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	<0.0040	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	<0.010	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	<0.0020	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	<0.0020	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	<0.20	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	<0.0010	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	<4.0	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	<0.0010	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	<0.010	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	<0.0040	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	<0.020	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	<0.60	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	<0.0040	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	<0.10	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	<0.40	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	# 0.016	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	<0.0040	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	<0.040	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	<2.0	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	<4.0	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	<0.010	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	<0.010	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	<4.0	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	<0.010	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	<0.0040	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	<0.00040	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	<0.020	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	<0.00040	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1208347) - continued						
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	<0.020	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	<0.10	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	<0.040	----
Metals (QCLot: 1208348)						
Silver	7440-22-4	E440A.Ag	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1208349)						
Titanium	7440-32-6	E440A.Ti	0.05	mg/kg wwt	<0.050	----
Metals (QCLot: 1208350)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1208351)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1208352)						
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	<0.25	----
Metals (QCLot: 1208353)						
Silver	7440-22-4	E440.Ag	0.005	mg/kg	<0.0050	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Organic / Inorganic Carbon (QCLot: 1146447)						
Carbon, total [TC]	----	E351	0.05	%	<0.050	----
Organic / Inorganic Carbon (QCLot: 1146937)						
Carbon, inorganic [IC]	----	E354	0.05	%	<0.050	----
Organic / Inorganic Carbon (QCLot: 1149329)						
Carbon, inorganic [IC]	----	E354	0.05	%	<0.050	----
Organic / Inorganic Carbon (QCLot: 1150037)						
Carbon, total [TC]	----	E351	0.05	%	<0.050	----
Metals (QCLot: 1146721)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1146722)						
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	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1146722) - continued						
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	----
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	----
Metals (QCLot: 1147154)						
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	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1147154) - continued						
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	----
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	----
Metals (QCLot: 1147155)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----

Qualifiers

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

Laboratory Control Sample (LCS) Report

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

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1146436)									
Moisture	----	E144	0.5	%	50 %	100	90.0	110	----
Physical Tests (QCLot: 1146441)									
Moisture	----	E144	0.5	%	50 %	100	90.0	110	----
Physical Tests (QCLot: 1146442)									
Moisture	----	E144	0.5	%	50 %	100	90.0	110	----
Physical Tests (QCLot: 1170475)									
Moisture	----	E144-H	2	%	100 %	100	90.0	110	----
Metals (QCLot: 1175661)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	103	80.0	120	----
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	97.5	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	103	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	94.0	80.0	120	----
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	100	80.0	120	----
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	97.4	80.0	120	----
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	99.4	80.0	120	----
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	102	80.0	120	----
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	99.4	80.0	120	----
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	98.0	80.0	120	----
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	94.4	80.0	120	----
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	97.9	80.0	120	----
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	96.9	80.0	120	----
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	102	80.0	120	----
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	101	80.0	120	----
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	101	80.0	120	----
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	103	80.0	120	----
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	96.2	80.0	120	----
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	106	80.0	120	----
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	99.2	80.0	120	----
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	99.3	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1175661) - continued									
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	95.9	80.0	120	----
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	103	80.0	120	----
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	101	80.0	120	----
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	98.2	80.0	120	----
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	95.6	80.0	120	----
Tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	101	80.0	120	----
Uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	101	80.0	120	----
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	101	80.0	120	----
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	95.8	80.0	120	----
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	102	80.0	120	----
Metals (QCLot: 1175662)									
Titanium	7440-32-6	E472.Ti	0.5	mg/kg	2.5 mg/kg	96.6	80.0	120	----
Metals (QCLot: 1175663)									
Aluminum	7429-90-5	E472A	1	mg/kg wwt	20 mg/kg wwt	103	80.0	120	----
Antimony	7440-36-0	E472A	0.002	mg/kg wwt	10 mg/kg wwt	97.5	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	103	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	94.0	80.0	120	----
Boron	7440-42-8	E472A	0.2	mg/kg wwt	10 mg/kg wwt	100	80.0	120	----
Cadmium	7440-43-9	E472A	0.002	mg/kg wwt	1 mg/kg wwt	97.4	80.0	120	----
Calcium	7440-70-2	E472A	4	mg/kg wwt	500 mg/kg wwt	99.4	80.0	120	----
Cesium	7440-46-2	E472A	0.001	mg/kg wwt	0.5 mg/kg wwt	102	80.0	120	----
Chromium	7440-47-3	E472A	0.04	mg/kg wwt	2.5 mg/kg wwt	99.4	80.0	120	----
Cobalt	7440-48-4	E472A	0.004	mg/kg wwt	2.5 mg/kg wwt	98.0	80.0	120	----
Copper	7440-50-8	E472A	0.04	mg/kg wwt	2.5 mg/kg wwt	94.4	80.0	120	----
Iron	7439-89-6	E472A	1	mg/kg wwt	10 mg/kg wwt	97.9	80.0	120	----
Lead	7439-92-1	E472A	0.01	mg/kg wwt	5 mg/kg wwt	96.9	80.0	120	----
Lithium	7439-93-2	E472A	0.1	mg/kg wwt	2.5 mg/kg wwt	102	80.0	120	----
Magnesium	7439-95-4	E472A	0.4	mg/kg wwt	500 mg/kg wwt	101	80.0	120	----
Manganese	7439-96-5	E472A	0.01	mg/kg wwt	2.5 mg/kg wwt	101	80.0	120	----
Molybdenum	7439-98-7	E472A	0.008	mg/kg wwt	2.5 mg/kg wwt	103	80.0	120	----
Nickel	7440-02-0	E472A	0.04	mg/kg wwt	5 mg/kg wwt	96.2	80.0	120	----
Phosphorus	7723-14-0	E472A	2	mg/kg wwt	100 mg/kg wwt	106	80.0	120	----
Potassium	7440-09-7	E472A	4	mg/kg wwt	500 mg/kg wwt	99.2	80.0	120	----
Rubidium	7440-17-7	E472A	0.01	mg/kg wwt	1 mg/kg wwt	99.3	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1175663) - continued									
Selenium	7782-49-2	E472A	0.02	mg/kg wwt	10 mg/kg wwt	95.9	80.0	120	----
Sodium	7440-23-5	E472A	4	mg/kg wwt	500 mg/kg wwt	103	80.0	120	----
Strontium	7440-24-6	E472A	0.02	mg/kg wwt	2.5 mg/kg wwt	101	80.0	120	----
Tellurium	13494-80-9	E472A	0.004	mg/kg wwt	1 mg/kg wwt	98.2	80.0	120	----
Thallium	7440-28-0	E472A	0.0004	mg/kg wwt	10 mg/kg wwt	95.6	80.0	120	----
Tin	7440-31-5	E472A	0.02	mg/kg wwt	5 mg/kg wwt	101	80.0	120	----
Uranium	7440-61-1	E472A	0.0004	mg/kg wwt	0.05 mg/kg wwt	101	80.0	120	----
Vanadium	7440-62-2	E472A	0.02	mg/kg wwt	5 mg/kg wwt	101	80.0	120	----
Zinc	7440-66-6	E472A	0.2	mg/kg wwt	5 mg/kg wwt	95.8	80.0	120	----
Zirconium	7440-67-7	E472A	0.04	mg/kg wwt	1 mg/kg wwt	102	80.0	120	----
Metals (QCLot: 1175664)									
Silver	7440-22-4	E472A.Ag	0.001	mg/kg wwt	1 mg/kg wwt	81.5	80.0	120	----
Metals (QCLot: 1175665)									
Titanium	7440-32-6	E472A.Ti	0.1	mg/kg wwt	2.5 mg/kg wwt	96.6	80.0	120	----
Metals (QCLot: 1175666)									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	91.3	80.0	120	----
Metals (QCLot: 1175667)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	91.3	80.0	120	----
Metals (QCLot: 1175668)									
Silver	7440-22-4	E472.Ag	0.005	mg/kg	1 mg/kg	81.5	80.0	120	----
Metals (QCLot: 1208317)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	100	80.0	120	----
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	95.1	80.0	120	----
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	105	80.0	120	----
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	101	80.0	120	----
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	90.0	80.0	120	----
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	87.3	80.0	120	----
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	81.9	80.0	120	----
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	97.6	80.0	120	----
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	90.4	80.0	120	----
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	90.9	80.0	120	----
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	101	80.0	120	----
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	99.0	80.0	120	----
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	96.9	80.0	120	----
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	99.9	80.0	120	----
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	89.5	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1208317) - continued									
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	90.2	80.0	120	----
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	105	80.0	120	----
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	102	80.0	120	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	93.1	80.0	120	----
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	99.0	80.0	120	----
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	108	80.0	120	----
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	102	80.0	120	----
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	101	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	95.3	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	108	80.0	120	----
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	97.4	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	93.9	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	87.6	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	94.0	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	87.6	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	103	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	96.2	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	90.0	80.0	120	----
Metals (QCLot: 1208318)									
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	20 mg/kg wwt	100	80.0	120	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	10 mg/kg wwt	95.1	80.0	120	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	10 mg/kg wwt	105	80.0	120	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	101	80.0	120	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	1 mg/kg wwt	90.0	80.0	120	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	10 mg/kg wwt	87.3	80.0	120	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	10 mg/kg wwt	81.9	80.0	120	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	1 mg/kg wwt	97.6	80.0	120	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	500 mg/kg wwt	90.4	80.0	120	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	0.5 mg/kg wwt	90.9	80.0	120	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	101	80.0	120	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	99.0	80.0	120	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	2.5 mg/kg wwt	96.9	80.0	120	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	10 mg/kg wwt	99.9	80.0	120	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	5 mg/kg wwt	89.5	80.0	120	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	2.5 mg/kg wwt	90.2	80.0	120	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	500 mg/kg wwt	105	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1208318) - continued									
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	102	80.0	120	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	93.1	80.0	120	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	5 mg/kg wwt	99.0	80.0	120	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	100 mg/kg wwt	108	80.0	120	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	500 mg/kg wwt	102	80.0	120	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	1 mg/kg wwt	101	80.0	120	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	10 mg/kg wwt	95.3	80.0	120	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	500 mg/kg wwt	108	80.0	120	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	97.4	80.0	120	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	1 mg/kg wwt	93.9	80.0	120	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	10 mg/kg wwt	87.6	80.0	120	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	5 mg/kg wwt	94.0	80.0	120	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	0.05 mg/kg wwt	87.6	80.0	120	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	5 mg/kg wwt	103	80.0	120	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	5 mg/kg wwt	96.2	80.0	120	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	1 mg/kg wwt	90.0	80.0	120	----
Metals (QCLot: 1208319)									
Silver	7440-22-4	E440A.Ag	0.001	mg/kg wwt	1 mg/kg wwt	81.8	80.0	120	----
Metals (QCLot: 1208320)									
Titanium	7440-32-6	E440A.Ti	0.05	mg/kg wwt	2.5 mg/kg wwt	97.5	80.0	120	----
Metals (QCLot: 1208321)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	102	80.0	120	----
Metals (QCLot: 1208322)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	102	80.0	120	----
Metals (QCLot: 1208323)									
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	97.5	80.0	120	----
Metals (QCLot: 1208324)									
Silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	81.8	80.0	120	----
Metals (QCLot: 1208328)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	107	80.0	120	----
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	104	80.0	120	----
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	107	80.0	120	----
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	108	80.0	120	----
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	107	80.0	120	----
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	95.0	80.0	120	----
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	96.9	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1208328) - continued									
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	103	80.0	120	----
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	105	80.0	120	----
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	101	80.0	120	----
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	106	80.0	120	----
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	104	80.0	120	----
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	101	80.0	120	----
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	108	80.0	120	----
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	100	80.0	120	----
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	106	80.0	120	----
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	108	80.0	120	----
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	103	80.0	120	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	104	80.0	120	----
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	104	80.0	120	----
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	112	80.0	120	----
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	107	80.0	120	----
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	103	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	101	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	109	80.0	120	----
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	112	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	102	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	99.1	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	104	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	96.7	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	108	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	101	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	103	80.0	120	----
Metals (QCLot: 1208329)									
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	20 mg/kg wwt	107	80.0	120	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	10 mg/kg wwt	104	80.0	120	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	10 mg/kg wwt	107	80.0	120	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	108	80.0	120	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	1 mg/kg wwt	107	80.0	120	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	10 mg/kg wwt	95.0	80.0	120	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	10 mg/kg wwt	96.9	80.0	120	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	1 mg/kg wwt	103	80.0	120	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	500 mg/kg wwt	105	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1208329) - continued									
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	0.5 mg/kg wwt	101	80.0	120	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	106	80.0	120	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	104	80.0	120	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	2.5 mg/kg wwt	101	80.0	120	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	10 mg/kg wwt	108	80.0	120	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	5 mg/kg wwt	100	80.0	120	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	2.5 mg/kg wwt	106	80.0	120	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	500 mg/kg wwt	108	80.0	120	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	103	80.0	120	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	104	80.0	120	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	5 mg/kg wwt	104	80.0	120	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	100 mg/kg wwt	112	80.0	120	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	500 mg/kg wwt	107	80.0	120	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	1 mg/kg wwt	103	80.0	120	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	10 mg/kg wwt	101	80.0	120	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	500 mg/kg wwt	109	80.0	120	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	112	80.0	120	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	1 mg/kg wwt	102	80.0	120	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	10 mg/kg wwt	99.1	80.0	120	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	5 mg/kg wwt	104	80.0	120	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	0.05 mg/kg wwt	96.7	80.0	120	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	5 mg/kg wwt	108	80.0	120	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	5 mg/kg wwt	101	80.0	120	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	1 mg/kg wwt	103	80.0	120	----
Metals (QCLot: 1208333)									
Silver	7440-22-4	E440A.Ag	0.001	mg/kg wwt	1 mg/kg wwt	91.9	80.0	120	----
Metals (QCLot: 1208334)									
Titanium	7440-32-6	E440A.Ti	0.05	mg/kg wwt	2.5 mg/kg wwt	97.8	80.0	120	----
Metals (QCLot: 1208335)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	108	80.0	120	----
Metals (QCLot: 1208336)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	108	80.0	120	----
Metals (QCLot: 1208337)									
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	97.8	80.0	120	----
Metals (QCLot: 1208338)									
Silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	91.9	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1208346)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	110	80.0	120	----
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	109	80.0	120	----
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	112	80.0	120	----
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	111	80.0	120	----
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	107	80.0	120	----
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	103	80.0	120	----
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	100.0	80.0	120	----
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	106	80.0	120	----
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	108	80.0	120	----
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	109	80.0	120	----
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	107	80.0	120	----
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	106	80.0	120	----
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	106	80.0	120	----
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	110	80.0	120	----
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	104	80.0	120	----
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	109	80.0	120	----
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	108	80.0	120	----
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	105	80.0	120	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	110	80.0	120	----
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	106	80.0	120	----
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	116	80.0	120	----
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	107	80.0	120	----
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	107	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	107	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	111	80.0	120	----
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	108	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	110	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	102	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	106	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	104	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	109	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	106	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	105	80.0	120	----
Metals (QCLot: 1208347)									
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	20 mg/kg wwt	110	80.0	120	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	10 mg/kg wwt	109	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1208347) - continued									
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	10 mg/kg wwt	112	80.0	120	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	111	80.0	120	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	1 mg/kg wwt	107	80.0	120	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	10 mg/kg wwt	103	80.0	120	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	10 mg/kg wwt	100.0	80.0	120	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	1 mg/kg wwt	106	80.0	120	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	500 mg/kg wwt	108	80.0	120	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	0.5 mg/kg wwt	109	80.0	120	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	107	80.0	120	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	106	80.0	120	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	2.5 mg/kg wwt	106	80.0	120	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	10 mg/kg wwt	110	80.0	120	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	5 mg/kg wwt	104	80.0	120	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	2.5 mg/kg wwt	109	80.0	120	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	500 mg/kg wwt	108	80.0	120	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	105	80.0	120	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	110	80.0	120	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	5 mg/kg wwt	106	80.0	120	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	100 mg/kg wwt	116	80.0	120	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	500 mg/kg wwt	107	80.0	120	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	1 mg/kg wwt	107	80.0	120	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	10 mg/kg wwt	107	80.0	120	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	500 mg/kg wwt	111	80.0	120	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	108	80.0	120	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	1 mg/kg wwt	110	80.0	120	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	10 mg/kg wwt	102	80.0	120	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	5 mg/kg wwt	106	80.0	120	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	0.05 mg/kg wwt	104	80.0	120	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	5 mg/kg wwt	109	80.0	120	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	5 mg/kg wwt	106	80.0	120	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	1 mg/kg wwt	105	80.0	120	----
Metals (QCLot: 1208348)									
Silver	7440-22-4	E440A.Ag	0.001	mg/kg wwt	1 mg/kg wwt	98.0	80.0	120	----
Metals (QCLot: 1208349)									
Titanium	7440-32-6	E440A.Ti	0.05	mg/kg wwt	2.5 mg/kg wwt	105	80.0	120	----
Metals (QCLot: 1208350)									

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Metals (QCLot: 1208350) - continued									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	106	80.0	120	----
Metals (QCLot: 1208351)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	106	80.0	120	----
Metals (QCLot: 1208352)									
Titanium	7440-32-6	E440.Ti	0.25	mg/kg	2.5 mg/kg	105	80.0	120	----
Metals (QCLot: 1208353)									
Silver	7440-22-4	E440.Ag	0.005	mg/kg	1 mg/kg	98.0	80.0	120	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Physical Tests (QCLot: 1146723)									
pH (1:2 soil:water)	----	E108	----	pH units	6 pH units	99.7	95.0	105	----
Physical Tests (QCLot: 1147159)									
pH (1:2 soil:water)	----	E108	----	pH units	6 pH units	98.5	95.0	105	----
Organic / Inorganic Carbon (QCLot: 1146447)									
Carbon, total [TC]	----	E351	0.05	%	48 %	102	90.0	110	----
Organic / Inorganic Carbon (QCLot: 1146937)									
Carbon, inorganic [IC]	----	E354	0.05	%	0.5 %	94.1	90.0	110	----
Organic / Inorganic Carbon (QCLot: 1149329)									
Carbon, inorganic [IC]	----	E354	0.05	%	0.5 %	97.9	90.0	110	----
Organic / Inorganic Carbon (QCLot: 1150037)									
Carbon, total [TC]	----	E351	0.05	%	48 %	101	90.0	110	----
Metals (QCLot: 1146721)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	99.2	80.0	120	----
Metals (QCLot: 1146722)									
Aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	99.3	80.0	120	----
Antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	114	80.0	120	----
Arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	104	80.0	120	----
Barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	101	80.0	120	----
Beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	102	80.0	120	----
Bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	104	80.0	120	----
Boron	7440-42-8	E440	5	mg/kg	100 mg/kg	96.2	80.0	120	----

Sub-Matrix: **Soil/Solid**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1146722) - continued									
Cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	102	80.0	120	----
Calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	106	80.0	120	----
Chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	99.2	80.0	120	----
Cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	96.7	80.0	120	----
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	94.9	80.0	120	----
Iron	7439-89-6	E440	50	mg/kg	100 mg/kg	112	80.0	120	----
Lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	111	80.0	120	----
Lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	99.4	80.0	120	----
Magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	103	80.0	120	----
Manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	98.3	80.0	120	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	97.5	80.0	120	----
Nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	96.0	80.0	120	----
Phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	103	80.0	120	----
Potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	97.3	80.0	120	----
Selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	103	80.0	120	----
Silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	93.9	80.0	120	----
Sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	100	80.0	120	----
Strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	104	80.0	120	----
Sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	107	80.0	120	----
Thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	105	80.0	120	----
Tin	7440-31-5	E440	2	mg/kg	50 mg/kg	103	80.0	120	----
Titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	93.8	80.0	120	----
Tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	100	80.0	120	----
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	94.0	80.0	120	----
Vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	99.2	80.0	120	----
Zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	95.0	80.0	120	----
Zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	102	80.0	120	----
Metals (QCLot: 1147154)									
Aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	98.3	80.0	120	----
Antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	106	80.0	120	----
Arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	101	80.0	120	----
Barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	102	80.0	120	----
Beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	93.0	80.0	120	----
Bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	102	80.0	120	----
Boron	7440-42-8	E440	5	mg/kg	100 mg/kg	93.0	80.0	120	----
Cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	98.6	80.0	120	----

Sub-Matrix: **Soil/Solid**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1147154) - continued									
Calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	96.5	80.0	120	----
Chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	99.3	80.0	120	----
Cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	95.3	80.0	120	----
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	93.8	80.0	120	----
Iron	7439-89-6	E440	50	mg/kg	100 mg/kg	111	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	90.1	80.0	120	----
Magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	99.7	80.0	120	----
Manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	95.8	80.0	120	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	95.1	80.0	120	----
Nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	95.1	80.0	120	----
Phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	95.6	80.0	120	----
Potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	95.9	80.0	120	----
Selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	96.9	80.0	120	----
Silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	94.2	80.0	120	----
Sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	97.2	80.0	120	----
Strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	104	80.0	120	----
Sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	98.7	80.0	120	----
Thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	99.3	80.0	120	----
Tin	7440-31-5	E440	2	mg/kg	50 mg/kg	98.4	80.0	120	----
Titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	95.9	80.0	120	----
Tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	97.1	80.0	120	----
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	86.5	80.0	120	----
Vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	97.5	80.0	120	----
Zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	96.1	80.0	120	----
Zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	99.4	80.0	120	----
Metals (QCLot: 1147155)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	98.0	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: 1175661)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	93.9	70.0	130	----
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	100.0	70.0	130	----
	RM	Barium	7440-39-3	E472	0.352 mg/kg	88.6	70.0	130	----
	RM	Boron	7440-42-8	E472	3.47 mg/kg	91.2	70.0	130	----
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	98.6	70.0	130	----
	RM	Calcium	7440-70-2	E472	2010 mg/kg	91.6	70.0	130	----
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	94.7	70.0	130	----
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	95.9	50.0	150	----
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	96.8	65.0	135	----
	RM	Copper	7440-50-8	E472	3.3 mg/kg	95.7	70.0	130	----
	RM	Iron	7439-89-6	E472	102 mg/kg	96.6	70.0	130	----
	RM	Lead	7439-92-1	E472	0.058 mg/kg	92.0	15.0	185	----
	RM	Magnesium	7439-95-4	E472	899 mg/kg	97.1	70.0	130	----
	RM	Manganese	7439-96-5	E472	0.948 mg/kg	96.2	70.0	130	----
	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	89.6	70.0	130	----
	RM	Nickel	7440-02-0	E472	0.33 mg/kg	96.4	40.0	160	----
	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	99.4	70.0	130	----
	RM	Potassium	7440-09-7	E472	11600 mg/kg	100	70.0	130	----
	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	97.4	70.0	130	----
	RM	Selenium	7782-49-2	E472	2.48 mg/kg	99.1	70.0	130	----
	RM	Sodium	7440-23-5	E472	9620 mg/kg	102	70.0	130	----
	RM	Strontium	7440-24-6	E472	10.6 mg/kg	91.0	70.0	130	----
	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	95.9	70.0	130	----
	RM	Zinc	7440-66-6	E472	28.7 mg/kg	99.9	70.0	130	----
Metals (QCLot: 1175662)									
	RM	Titanium	7440-32-6	E472.Ti	1.15 mg/kg	93.0	70.0	130	----
Metals (QCLot: 1175663)									
	RM	Aluminum	7429-90-5	E472A	147 mg/kg wwt	93.9	70.0	130	----

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: 1175663) - continued									
	RM	Arsenic	7440-38-2	E472A	14.5 mg/kg wwt	100.0	70.0	130	----
	RM	Barium	7440-39-3	E472A	0.352 mg/kg wwt	88.6	70.0	130	----
	RM	Boron	7440-42-8	E472A	3.47 mg/kg wwt	91.2	70.0	130	----
	RM	Cadmium	7440-43-9	E472A	0.153 mg/kg wwt	98.6	70.0	130	----
	RM	Calcium	7440-70-2	E472A	2010 mg/kg wwt	91.6	70.0	130	----
	RM	Cesium	7440-46-2	E472A	0.0889 mg/kg wwt	94.7	70.0	130	----
	RM	Chromium	7440-47-3	E472A	0.453 mg/kg wwt	95.9	50.0	150	----
	RM	Cobalt	7440-48-4	E472A	0.0567 mg/kg wwt	96.8	65.0	135	----
	RM	Copper	7440-50-8	E472A	3.3 mg/kg wwt	95.7	70.0	130	----
	RM	Iron	7439-89-6	E472A	102 mg/kg wwt	96.6	70.0	130	----
	RM	Lead	7439-92-1	E472A	0.058 mg/kg wwt	92.0	15.0	185	----
	RM	Magnesium	7439-95-4	E472A	899 mg/kg wwt	97.1	70.0	130	----
	RM	Manganese	7439-96-5	E472A	0.948 mg/kg wwt	96.2	70.0	130	----
	RM	Molybdenum	7439-98-7	E472A	0.134 mg/kg wwt	89.6	70.0	130	----
	RM	Nickel	7440-02-0	E472A	0.33 mg/kg wwt	96.4	40.0	160	----
	RM	Phosphorus	7723-14-0	E472A	6700 mg/kg wwt	99.4	70.0	130	----
	RM	Potassium	7440-09-7	E472A	11600 mg/kg wwt	100	70.0	130	----
	RM	Rubidium	7440-17-7	E472A	2.53 mg/kg wwt	97.4	70.0	130	----
	RM	Selenium	7782-49-2	E472A	2.48 mg/kg wwt	99.1	70.0	130	----
	RM	Sodium	7440-23-5	E472A	9620 mg/kg wwt	102	70.0	130	----
	RM	Strontium	7440-24-6	E472A	10.6 mg/kg wwt	91.0	70.0	130	----
	RM	Vanadium	7440-62-2	E472A	0.269 mg/kg wwt	95.9	70.0	130	----
	RM	Zinc	7440-66-6	E472A	28.7 mg/kg wwt	99.9	70.0	130	----
Metals (QCLot: 1175664)									
	RM	Silver	7440-22-4	E472A.Ag	0.139 mg/kg wwt	90.5	70.0	130	----
Metals (QCLot: 1175665)									
	RM	Titanium	7440-32-6	E472A.Ti	1.15 mg/kg wwt	93.0	70.0	130	----
Metals (QCLot: 1175666)									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	93.4	70.0	130	----
Metals (QCLot: 1175667)									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	93.4	70.0	130	----

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: 1175668)									
	RM	Silver	7440-22-4	E472.Ag	0.139 mg/kg	90.5	70.0	130	----
Metals (QCLot: 1208317)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	106	70.0	130	----
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	98.6	70.0	130	----
	RM	Barium	7440-39-3	E440	0.352 mg/kg	101	70.0	130	----
	RM	Boron	7440-42-8	E440	3.47 mg/kg	95.8	70.0	130	----
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	100	70.0	130	----
	RM	Calcium	7440-70-2	E440	2010 mg/kg	103	70.0	130	----
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	98.5	70.0	130	----
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	99.9	70.0	130	----
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	98.8	65.0	135	----
	RM	Copper	7440-50-8	E440	3.3 mg/kg	97.5	70.0	130	----
	RM	Iron	7439-89-6	E440	102 mg/kg	102	70.0	130	----
	RM	Lead	7439-92-1	E440	0.058 mg/kg	98.8	70.0	130	----
	RM	Magnesium	7439-95-4	E440	899 mg/kg	102	70.0	130	----
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	106	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	106	70.0	130	----
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	98.5	40.0	160	----
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	101	70.0	130	----
	RM	Potassium	7440-09-7	E440	11600 mg/kg	102	70.0	130	----
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	99.8	70.0	130	----
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	101	70.0	130	----
	RM	Sodium	7440-23-5	E440	9620 mg/kg	106	70.0	130	----
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	105	70.0	130	----
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	104	70.0	130	----
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	99.6	70.0	130	----
Metals (QCLot: 1208318)									
	RM	Aluminum	7429-90-5	E440A	147 mg/kg wwt	106	70.0	130	----
	RM	Arsenic	7440-38-2	E440A	14.5 mg/kg wwt	98.6	70.0	130	----
	RM	Barium	7440-39-3	E440A	0.352 mg/kg wwt	101	70.0	130	----
	RM	Boron	7440-42-8	E440A	3.47 mg/kg wwt	95.8	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: 1208318) - continued									
	RM	Cadmium	7440-43-9	E440A	0.153 mg/kg wwt	100	70.0	130	----
	RM	Calcium	7440-70-2	E440A	2010 mg/kg wwt	103	70.0	130	----
	RM	Cesium	7440-46-2	E440A	0.0889 mg/kg wwt	98.5	70.0	130	----
	RM	Chromium	7440-47-3	E440A	0.453 mg/kg wwt	99.9	70.0	130	----
	RM	Cobalt	7440-48-4	E440A	0.0567 mg/kg wwt	98.8	65.0	135	----
	RM	Copper	7440-50-8	E440A	3.3 mg/kg wwt	97.5	70.0	130	----
	RM	Iron	7439-89-6	E440A	102 mg/kg wwt	102	70.0	130	----
	RM	Lead	7439-92-1	E440A	0.058 mg/kg wwt	98.8	70.0	130	----
	RM	Magnesium	7439-95-4	E440A	899 mg/kg wwt	102	70.0	130	----
	RM	Manganese	7439-96-5	E440A	0.948 mg/kg wwt	106	70.0	130	----
	RM	Molybdenum	7439-98-7	E440A	0.134 mg/kg wwt	106	70.0	130	----
	RM	Nickel	7440-02-0	E440A	0.33 mg/kg wwt	98.5	40.0	160	----
	RM	Phosphorus	7723-14-0	E440A	6700 mg/kg wwt	101	70.0	130	----
	RM	Potassium	7440-09-7	E440A	11600 mg/kg wwt	102	70.0	130	----
	RM	Rubidium	7440-17-7	E440A	2.53 mg/kg wwt	99.8	70.0	130	----
	RM	Selenium	7782-49-2	E440A	2.48 mg/kg wwt	101	70.0	130	----
	RM	Sodium	7440-23-5	E440A	9620 mg/kg wwt	106	70.0	130	----
	RM	Strontium	7440-24-6	E440A	10.6 mg/kg wwt	105	70.0	130	----
	RM	Vanadium	7440-62-2	E440A	0.269 mg/kg wwt	104	70.0	130	----
	RM	Zinc	7440-66-6	E440A	28.7 mg/kg wwt	99.6	70.0	130	----
Metals (QCLot: 1208319)									
	RM	Silver	7440-22-4	E440A.Ag	0.139 mg/kg wwt	98.9	70.0	130	----
Metals (QCLot: 1208320)									
	RM	Titanium	7440-32-6	E440A.Ti	1.15 mg/kg wwt	94.0	70.0	130	----
Metals (QCLot: 1208321)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	100	70.0	130	----
Metals (QCLot: 1208322)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	100	70.0	130	----
Metals (QCLot: 1208323)									
	RM	Titanium	7440-32-6	E440.Ti	1.15 mg/kg	94.0	70.0	130	----
Metals (QCLot: 1208324)									

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: 1208324) - continued									
	RM	Silver	7440-22-4	E440.Ag	0.139 mg/kg	98.9	70.0	130	----
Metals (QCLot: 1208328)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	112	70.0	130	----
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	103	70.0	130	----
	RM	Barium	7440-39-3	E440	0.352 mg/kg	126	70.0	130	----
	RM	Boron	7440-42-8	E440	3.47 mg/kg	106	70.0	130	----
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	105	70.0	130	----
	RM	Calcium	7440-70-2	E440	2010 mg/kg	# 140	70.0	130	MES
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	107	70.0	130	----
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	106	70.0	130	----
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	101	65.0	135	----
	RM	Copper	7440-50-8	E440	3.3 mg/kg	103	70.0	130	----
	RM	Iron	7439-89-6	E440	102 mg/kg	108	70.0	130	----
	RM	Lead	7439-92-1	E440	0.058 mg/kg	107	70.0	130	----
	RM	Magnesium	7439-95-4	E440	899 mg/kg	107	70.0	130	----
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	113	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	106	70.0	130	----
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	99.6	40.0	160	----
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	108	70.0	130	----
	RM	Potassium	7440-09-7	E440	11600 mg/kg	107	70.0	130	----
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	104	70.0	130	----
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	107	70.0	130	----
	RM	Sodium	7440-23-5	E440	9620 mg/kg	111	70.0	130	----
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	112	70.0	130	----
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	111	70.0	130	----
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	105	70.0	130	----
Metals (QCLot: 1208329)									
	RM	Aluminum	7429-90-5	E440A	147 mg/kg wwt	112	70.0	130	----
	RM	Arsenic	7440-38-2	E440A	14.5 mg/kg wwt	103	70.0	130	----
	RM	Barium	7440-39-3	E440A	0.352 mg/kg wwt	126	70.0	130	----
	RM	Boron	7440-42-8	E440A	3.47 mg/kg wwt	106	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: 1208329) - continued									
	RM	Cadmium	7440-43-9	E440A	0.153 mg/kg wwt	105	70.0	130	----
	RM	Calcium	7440-70-2	E440A	2010 mg/kg wwt	# 140	70.0	130	MES
	RM	Cesium	7440-46-2	E440A	0.0889 mg/kg wwt	107	70.0	130	----
	RM	Chromium	7440-47-3	E440A	0.453 mg/kg wwt	106	70.0	130	----
	RM	Cobalt	7440-48-4	E440A	0.0567 mg/kg wwt	101	65.0	135	----
	RM	Copper	7440-50-8	E440A	3.3 mg/kg wwt	103	70.0	130	----
	RM	Iron	7439-89-6	E440A	102 mg/kg wwt	108	70.0	130	----
	RM	Lead	7439-92-1	E440A	0.058 mg/kg wwt	107	70.0	130	----
	RM	Magnesium	7439-95-4	E440A	899 mg/kg wwt	107	70.0	130	----
	RM	Manganese	7439-96-5	E440A	0.948 mg/kg wwt	113	70.0	130	----
	RM	Molybdenum	7439-98-7	E440A	0.134 mg/kg wwt	106	70.0	130	----
	RM	Nickel	7440-02-0	E440A	0.33 mg/kg wwt	99.6	40.0	160	----
	RM	Phosphorus	7723-14-0	E440A	6700 mg/kg wwt	108	70.0	130	----
	RM	Potassium	7440-09-7	E440A	11600 mg/kg wwt	107	70.0	130	----
	RM	Rubidium	7440-17-7	E440A	2.53 mg/kg wwt	104	70.0	130	----
	RM	Selenium	7782-49-2	E440A	2.48 mg/kg wwt	107	70.0	130	----
	RM	Sodium	7440-23-5	E440A	9620 mg/kg wwt	111	70.0	130	----
	RM	Strontium	7440-24-6	E440A	10.6 mg/kg wwt	112	70.0	130	----
	RM	Vanadium	7440-62-2	E440A	0.269 mg/kg wwt	111	70.0	130	----
	RM	Zinc	7440-66-6	E440A	28.7 mg/kg wwt	105	70.0	130	----
Metals (QCLot: 1208333)									
	RM	Silver	7440-22-4	E440A.Ag	0.139 mg/kg wwt	107	70.0	130	----
Metals (QCLot: 1208334)									
	RM	Titanium	7440-32-6	E440A.Ti	1.15 mg/kg wwt	99.9	70.0	130	----
Metals (QCLot: 1208335)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	111	70.0	130	----
Metals (QCLot: 1208336)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	111	70.0	130	----
Metals (QCLot: 1208337)									
	RM	Titanium	7440-32-6	E440.Ti	1.15 mg/kg	99.9	70.0	130	----
Metals (QCLot: 1208338)									

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: 1208338) - continued									
	RM	Silver	7440-22-4	E440.Ag	0.139 mg/kg	107	70.0	130	----
Metals (QCLot: 1208346)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	102	70.0	130	----
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	96.3	70.0	130	----
	RM	Barium	7440-39-3	E440	0.352 mg/kg	99.4	70.0	130	----
	RM	Boron	7440-42-8	E440	3.47 mg/kg	91.4	70.0	130	----
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	101	70.0	130	----
	RM	Calcium	7440-70-2	E440	2010 mg/kg	105	70.0	130	----
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	101	70.0	130	----
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	111	70.0	130	----
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	98.9	65.0	135	----
	RM	Copper	7440-50-8	E440	3.3 mg/kg	97.2	70.0	130	----
	RM	Iron	7439-89-6	E440	102 mg/kg	98.2	70.0	130	----
	RM	Lead	7439-92-1	E440	0.058 mg/kg	94.6	70.0	130	----
	RM	Magnesium	7439-95-4	E440	899 mg/kg	96.6	70.0	130	----
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	102	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	96.2	70.0	130	----
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	108	40.0	160	----
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	97.5	70.0	130	----
	RM	Potassium	7440-09-7	E440	11600 mg/kg	93.6	70.0	130	----
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	99.0	70.0	130	----
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	101	70.0	130	----
	RM	Sodium	7440-23-5	E440	9620 mg/kg	96.9	70.0	130	----
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	96.5	70.0	130	----
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	99.1	70.0	130	----
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	98.6	70.0	130	----
Metals (QCLot: 1208347)									
	RM	Aluminum	7429-90-5	E440A	147 mg/kg wwt	102	70.0	130	----
	RM	Arsenic	7440-38-2	E440A	14.5 mg/kg wwt	96.3	70.0	130	----
	RM	Barium	7440-39-3	E440A	0.352 mg/kg wwt	99.4	70.0	130	----
	RM	Boron	7440-42-8	E440A	3.47 mg/kg wwt	91.4	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: 1208347) - continued									
	RM	Cadmium	7440-43-9	E440A	0.153 mg/kg wwt	101	70.0	130	----
	RM	Calcium	7440-70-2	E440A	2010 mg/kg wwt	105	70.0	130	----
	RM	Cesium	7440-46-2	E440A	0.0889 mg/kg wwt	101	70.0	130	----
	RM	Chromium	7440-47-3	E440A	0.453 mg/kg wwt	111	70.0	130	----
	RM	Cobalt	7440-48-4	E440A	0.0567 mg/kg wwt	98.9	65.0	135	----
	RM	Copper	7440-50-8	E440A	3.3 mg/kg wwt	97.2	70.0	130	----
	RM	Iron	7439-89-6	E440A	102 mg/kg wwt	98.2	70.0	130	----
	RM	Lead	7439-92-1	E440A	0.058 mg/kg wwt	94.6	70.0	130	----
	RM	Magnesium	7439-95-4	E440A	899 mg/kg wwt	96.6	70.0	130	----
	RM	Manganese	7439-96-5	E440A	0.948 mg/kg wwt	102	70.0	130	----
	RM	Molybdenum	7439-98-7	E440A	0.134 mg/kg wwt	96.2	70.0	130	----
	RM	Nickel	7440-02-0	E440A	0.33 mg/kg wwt	108	40.0	160	----
	RM	Phosphorus	7723-14-0	E440A	6700 mg/kg wwt	97.5	70.0	130	----
	RM	Potassium	7440-09-7	E440A	11600 mg/kg wwt	93.6	70.0	130	----
	RM	Rubidium	7440-17-7	E440A	2.53 mg/kg wwt	99.0	70.0	130	----
	RM	Selenium	7782-49-2	E440A	2.48 mg/kg wwt	101	70.0	130	----
	RM	Sodium	7440-23-5	E440A	9620 mg/kg wwt	96.9	70.0	130	----
	RM	Strontium	7440-24-6	E440A	10.6 mg/kg wwt	96.5	70.0	130	----
	RM	Vanadium	7440-62-2	E440A	0.269 mg/kg wwt	99.1	70.0	130	----
	RM	Zinc	7440-66-6	E440A	28.7 mg/kg wwt	98.6	70.0	130	----
Metals (QCLot: 1208348)									
	RM	Silver	7440-22-4	E440A.Ag	0.139 mg/kg wwt	99.8	70.0	130	----
Metals (QCLot: 1208349)									
	RM	Titanium	7440-32-6	E440A.Ti	1.15 mg/kg wwt	93.3	70.0	130	----
Metals (QCLot: 1208350)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	106	70.0	130	----
Metals (QCLot: 1208351)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	106	70.0	130	----
Metals (QCLot: 1208352)									
	RM	Titanium	7440-32-6	E440.Ti	1.15 mg/kg	93.3	70.0	130	----
Metals (QCLot: 1208353)									

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: 1208353) - continued									
	RM	Silver	7440-22-4	E440.Ag	0.139 mg/kg	99.8	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
Particle Size (QCLot: 1147979)									
	RM	Clay (<0.002mm)	----	E180	26.53 %	94.5	80.0	120	----
	RM	Sand (2.0mm - 0.05mm)	----	E180	44.78 %	104	90.0	110	----
	RM	Silt (0.05mm - 0.002mm)	----	E180	28.68 %	99.6	82.0	118	----
Particle Size (QCLot: 1147997)									
	RM	Clay (<0.002mm)	----	E180	26.53 %	96.4	80.0	120	----
	RM	Sand (2.0mm - 0.05mm)	----	E180	44.78 %	103	90.0	110	----
	RM	Silt (0.05mm - 0.002mm)	----	E180	28.68 %	99.1	82.0	118	----
Organic / Inorganic Carbon (QCLot: 1146447)									
	RM	Carbon, total [TC]	----	E351	1.4 %	105	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1146937)									
	RM	Carbon, inorganic [IC]	----	E354	0.383 %	101	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1149329)									
	RM	Carbon, inorganic [IC]	----	E354	0.383 %	96.0	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1150037)									
	RM	Carbon, total [TC]	----	E351	1.4 %	103	80.0	120	----
Metals (QCLot: 1146721)									
	SCP SS-2	Mercury	7439-97-6	E510	0.059 mg/kg	100	70.0	130	----
Metals (QCLot: 1146722)									
	SCP SS-2	Aluminum	7429-90-5	E440	9817 mg/kg	110	70.0	130	----
	SCP SS-2	Antimony	7440-36-0	E440	3.99 mg/kg	103	70.0	130	----
	SCP SS-2	Arsenic	7440-38-2	E440	3.73 mg/kg	108	70.0	130	----
	SCP SS-2	Barium	7440-39-3	E440	105 mg/kg	104	70.0	130	----
	SCP SS-2	Beryllium	7440-41-7	E440	0.349 mg/kg	109	70.0	130	----
	SCP SS-2	Boron	7440-42-8	E440	8.5 mg/kg	121	40.0	160	----
	SCP SS-2	Cadmium	7440-43-9	E440	0.91 mg/kg	97.6	70.0	130	----
	SCP SS-2	Calcium	7440-70-2	E440	31082 mg/kg	102	70.0	130	----

Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Reference Material (RM) Report: Recovery (%) RM	Reference Material (RM) Report: Recovery Limits (%) Low	Reference Material (RM) Report: Recovery Limits (%) High	Reference Material (RM) Report: Qualifier
Metals (QCLot: 1146722) - continued									
	SCP SS-2	Chromium	7440-47-3	E440	101 mg/kg	118	70.0	130	----
	SCP SS-2	Cobalt	7440-48-4	E440	6.9 mg/kg	100	70.0	130	----
	SCP SS-2	Copper	7440-50-8	E440	123 mg/kg	99.0	70.0	130	----
	SCP SS-2	Iron	7439-89-6	E440	23558 mg/kg	97.8	70.0	130	----
	SCP SS-2	Lead	7439-92-1	E440	267 mg/kg	98.0	70.0	130	----
	SCP SS-2	Lithium	7439-93-2	E440	9.5 mg/kg	103	70.0	130	----
	SCP SS-2	Magnesium	7439-95-4	E440	5509 mg/kg	108	70.0	130	----
	SCP SS-2	Manganese	7439-96-5	E440	269 mg/kg	111	70.0	130	----
	SCP SS-2	Molybdenum	7439-98-7	E440	1.03 mg/kg	105	70.0	130	----
	SCP SS-2	Nickel	7440-02-0	E440	26.7 mg/kg	99.9	70.0	130	----
	SCP SS-2	Phosphorus	7723-14-0	E440	752 mg/kg	102	70.0	130	----
	SCP SS-2	Potassium	7440-09-7	E440	1587 mg/kg	120	70.0	130	----
	SCP SS-2	Sodium	7440-23-5	E440	797 mg/kg	108	70.0	130	----
	SCP SS-2	Strontium	7440-24-6	E440	86.1 mg/kg	105	70.0	130	----
	SCP SS-2	Thallium	7440-28-0	E440	0.0786 mg/kg	97.1	40.0	160	----
	SCP SS-2	Tin	7440-31-5	E440	10.6 mg/kg	96.8	70.0	130	----
	SCP SS-2	Titanium	7440-32-6	E440	839 mg/kg	121	70.0	130	----
	SCP SS-2	Uranium	7440-61-1	E440	0.52 mg/kg	109	70.0	130	----
	SCP SS-2	Vanadium	7440-62-2	E440	32.7 mg/kg	108	70.0	130	----
	SCP SS-2	Zinc	7440-66-6	E440	297 mg/kg	93.3	70.0	130	----
	SCP SS-2	Zirconium	7440-67-7	E440	5.73 mg/kg	110	70.0	130	----
Metals (QCLot: 1147154)									
	SCP SS-2	Aluminum	7429-90-5	E440	9817 mg/kg	107	70.0	130	----
	SCP SS-2	Antimony	7440-36-0	E440	3.99 mg/kg	96.4	70.0	130	----
	SCP SS-2	Arsenic	7440-38-2	E440	3.73 mg/kg	105	70.0	130	----
	SCP SS-2	Barium	7440-39-3	E440	105 mg/kg	104	70.0	130	----
	SCP SS-2	Beryllium	7440-41-7	E440	0.349 mg/kg	98.8	70.0	130	----
	SCP SS-2	Boron	7440-42-8	E440	8.5 mg/kg	115	40.0	160	----
	SCP SS-2	Cadmium	7440-43-9	E440	0.91 mg/kg	93.8	70.0	130	----
	SCP SS-2	Calcium	7440-70-2	E440	31082 mg/kg	95.2	70.0	130	----
	SCP SS-2	Chromium	7440-47-3	E440	101 mg/kg	116	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: 1147154) - continued									
	SCP SS-2	Cobalt	7440-48-4	E440	6.9 mg/kg	99.5	70.0	130	----
	SCP SS-2	Copper	7440-50-8	E440	123 mg/kg	96.7	70.0	130	----
	SCP SS-2	Iron	7439-89-6	E440	23558 mg/kg	102	70.0	130	----
	SCP SS-2	Lead	7439-92-1	E440	267 mg/kg	102	70.0	130	----
	SCP SS-2	Lithium	7439-93-2	E440	9.5 mg/kg	94.8	70.0	130	----
	SCP SS-2	Magnesium	7439-95-4	E440	5509 mg/kg	110	70.0	130	----
	SCP SS-2	Manganese	7439-96-5	E440	269 mg/kg	106	70.0	130	----
	SCP SS-2	Molybdenum	7439-98-7	E440	1.03 mg/kg	95.0	70.0	130	----
	SCP SS-2	Nickel	7440-02-0	E440	26.7 mg/kg	97.7	70.0	130	----
	SCP SS-2	Phosphorus	7723-14-0	E440	752 mg/kg	95.5	70.0	130	----
	SCP SS-2	Potassium	7440-09-7	E440	1587 mg/kg	115	70.0	130	----
	SCP SS-2	Sodium	7440-23-5	E440	797 mg/kg	104	70.0	130	----
	SCP SS-2	Strontium	7440-24-6	E440	86.1 mg/kg	101	70.0	130	----
	SCP SS-2	Thallium	7440-28-0	E440	0.0786 mg/kg	101	40.0	160	----
	SCP SS-2	Tin	7440-31-5	E440	10.6 mg/kg	95.6	70.0	130	----
	SCP SS-2	Titanium	7440-32-6	E440	839 mg/kg	122	70.0	130	----
	SCP SS-2	Uranium	7440-61-1	E440	0.52 mg/kg	90.1	70.0	130	----
	SCP SS-2	Vanadium	7440-62-2	E440	32.7 mg/kg	104	70.0	130	----
	SCP SS-2	Zinc	7440-66-6	E440	297 mg/kg	96.3	70.0	130	----
	SCP SS-2	Zirconium	7440-67-7	E440	5.73 mg/kg	104	70.0	130	----
Metals (QCLot: 1147155)									
	SCP SS-2	Mercury	7439-97-6	E510	0.059 mg/kg	97.2	70.0	130	----

Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Terrace Shipping
4 Coolers Ground ☐
____ Carboys Air ☑
SFX ☐

Affix ALS barcode label here
(lab use only)

COC Number: 17 -

Page 1 of 1

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Report To	Contact and company name below will appear on the final report	Report Format / Distribution	Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)
Company:	ERM Consultants Canada Ltd.	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:	Jessica Lowey, Kimberly San	Quality Control (QC) Report with Report ☑ YES ☐ NO	PRIORITY (Business Days): 4 day [P4-20%] ☐ / 3 day [P3-25%] ☐ / 2 day [P2-50%] ☐ — EMERGENCY: 1 Business day [E - 100%] ☐ / Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐
Phone:	250 520 0053, 778 554 8419	☐ Compare Results to Criteria on Report - provide details below if box checked	
	Company address below will appear on the final report	Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Street:	~~#1000 - 1100 Melville Street~~	Email 1 or Fax: jessica.lowey@erm.com	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
City/Province:	Vancouver, British Columbia	Email 2: kimberly.san@erm.com	For tests that can not be performed according to the service level selected, you will be contacted.
Postal Code:	V6E 4A6	Email 3: amuttray@entiaenviro.com	
Invoice To	Same as Report To ☑ YES ☐ NO	Invoice Distribution	Analysis Request
	Copy of Invoice with Report ☐ YES ☑ NO	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Company:	ERM Consultants Canada Ltd.	Email 1 or Fax: kimberly.san@erm.com	
Contact:	Jessica Lowey, Kimberly San	Email 2: patty.vadnais@erm.com	

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	VA23-ERMO100-018	AFE/Cost Center:	PO#:
Job #:	0700679-02-002 (Blackwater)	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):	VA23C2014	ALS Contact: Amber Springer	Sampler: Katherine Baird

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	As per Quote VA23-ERMO100-018	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
1	021-SOIL	8-Sep-23	14:07	SOIL	2	R			
2	021-SEDGE	8-Sep-23	14:07	TISSUE	1	R			
3	021-WILL	8-Sep-23	14:07	TISSUE	1	R			
4	021-LAB	8-Sep-23	14:07	TISSUE	1	R			
5	018-SOIL	8-Sep-23	12:17	SOIL	2	R			
6	018-WILL	8-Sep-23	12:17	TISSUE	1	R			
7	018-SEDGE	8-Sep-23	12:17	TISSUE	1	R			
8	010-SOIL	8-Sep-23	9:28	SOIL	2	R			
9	010-SEDGE	8-Sep-23	9:28	TISSUE	1	R			
10	010-WILL	8-Sep-23	9:28	TISSUE	1	R			
11	002-SOIL	7-Sep-23	8:27	SOIL	2	R			
12	002-LAB	7-Sep-23	8:27	TISSUE	1	R			

Environmental Division
Vancouver
Work Order Reference
VA23C2014

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	Analysis as per quote VA23-ERMO100-018. Do not include arsenic speciation for tissue
Are samples for human consumption/ use? ☐ YES ☑ NO	

SAMPLE CONDITION AS RECEIVED (lab use only)

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

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
15.0	14.1			~~AR~~	~~Initial~~		

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by: M.K	Date: Sept. 14/23	Time: 9:30	Received by: AR	Date: 15/09/23	Time: 1:15pm

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION — WHITE - LABORATORY COPY — YELLOW - CLIENT COPY — NOV 2016 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.

Bandstra

9°C 16°C 18°C 10°C

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Page 1 of 1

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Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	jessica.lowey@erm.com
Email 2	kimberly.san@erm.com
Email 3	amuttray@entiaenviro.com

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	kimberly.san@erm.com
Email 2	patty.vadnais@erm.com

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

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

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

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

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

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

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	VA23-ERMO100-018	AFE/Cost Center:	PO#
Job #:	0700679-02-002 (Blackwater)	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer | Sampler: Katherine Baird

Analysis Request

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	As per Quote VA23-ERMO100-018	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
13	002-WILL	7-Sep-23	8:27	TISSUE	1	R			
14	013-SOIL	7-Sep-23	14:38	SOIL	2	R			
15	013-WILL	7-Sep-23	14:38	TISSUE	1	R			
16	017-SOIL	7-Sep-23	13:14	SOIL	2	R			
17	005-SOIL	7-Sep-23	10:51	SOIL	2	R			
18	005-LAB	7-Sep-23	10:51	TISSUE	1	R			
19	005-WILL	7-Sep-23	10:51	TISSUE	1	R			
20	029-SOIL	6-Sep-23	9:00	SOIL	2	R			
21	029-SEDGE	6-Sep-23	9:00	TISSUE	1	R			
22	029-WILL	6-Sep-23	9:00	TISSUE	1	R			
23	029-LAB	6-Sep-23	9:00	TISSUE	1	R			
24	022-SOIL	5-Sep-23	15:09	SOIL	2	R			

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

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

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

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

Analysis as per quote VA23-ERMO100-018. Do not include arsenic speciation for tissue

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C		FINAL COOLER TEMPERATURES °C					
15.0	14.1						

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by: M.K	Date: Sept. 14/23	Time: 9:30	Received by: AR	Date: 15/09/23	Time: 1:15pm

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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

Bandstra

9°C 16°C 13°C 10°C

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	jessica.lowey@erm.com
Email 2	kimberly.san@erm.com
Email 3	amuttray@entiaenviro.com
Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	kimberly.san@erm.com
Email 2	patty.vadnais@erm.com

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	VA23-ERMO100-018	AFE/Cost Center:	PO#
Job #:	0700679-02-002 (Blackwater)	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer Sampler: Katherine Baird

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

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

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

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

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

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

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	As per Quote VA23-ERMO100-018	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
25	022-WILL	5-Sep-23	15:09	TISSUE	1	R		
26	009-SOIL	5-Sep-23	13:24	SOIL	2	R		
27	009-WILL	5-Sep-23	13:24	TISSUE	1	R		
28	009-LAB	5-Sep-23	13:24	TISSUE	1	R		
29	009-SEDGE	5-Sep-23	13:24	TISSUE	1	R		
30	008-SOIL	5-Sep-23	10:33	SOIL	2	R		
31	008-WILL	5-Sep-23	10:33	TISSUE	1	R		
32	008-LAB	5-Sep-23	10:33	TISSUE	1	R		
33	027-SOIL	4-Sep-23	16:21	SOIL	2	R		
34	027-WILL	4-Sep-23	16:21	TISSUE	1	R		
35	040-SOIL	4-Sep-23	13:55	SOIL	2	R		
36	040-WILL	4-Sep-23	13:55	TISSUE	1	R		

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

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

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

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

Analysis as per quote VA23-ERMO100-018. Do not include arsenic speciation for tissue

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
15	14.1						

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
				Sept. 14/23	9:30	AR	15/09/23	1:15pm

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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

Bandstra

9°C 16°C 13°C 10°C

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	jessica.lowey@erm.com
Email 2	kimberly.san@erm.com
Email 3	amuttray@entiaenviro.com

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	kimberly.san@erm.com
Email 2	patty.vadnais@erm.com

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

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

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

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

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

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	VA23-ERMO100-018	AFE/Cost Center:	PO#
Job #:	0700679-02-002 (Blackwater)	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer | Sampler: Katherine Baird

Analysis Request

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	As per Quote VA23-ERMO100-018	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
37	006-SOIL	2-Sep-23	11:04	SOIL	2	R			
38	006-HUCK	2-Sep-23	11:04	TISSUE	1	R			
39	006-WILL	2-Sep-23	11:04	TISSUE	1	R			
40	019-SOIL	3-Sep-23	12:59	SOIL	2	R			
41	019-SEDGE	3-Sep-23	12:59	TISSUE	1	R			
42	019-WILL	3-Sep-23	12:59	TISSUE	1	R			
43	019-LAB	3-Sep-23	12:59	TISSUE	1	R			
44	023-SOIL	6-Sep-23	14:16	SOIL	2	R			
45	023-WILL	6-Sep-23	14:16	TISSUE	1	R			
46	030-SOIL	6-Sep-23	11:28	SOIL	2	R			
47	030-LAB	6-Sep-23	11:28	TISSUE	1	R			
48	030-WILL	6-Sep-23	11:28	TISSUE	1	R			

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

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

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

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

Analysis as per quote VA23-ERMO100-018. Do not include arsenic speciation for tissue

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
15.0	14.1						

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by: MK	Date: Sept. 14/23	Time: 9:30	Received by: AR	Date: 15/09/23	Time: 1:15pm

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Bandstra

9°C 16°C 13°C 10°C

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Canada Toll Free: 1 800 668 9878

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Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	jessica.lowey@erm.com
Email 2	kimberly.san@erm.com
Email 3	amuttray@entiaenviro.com

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	kimberly.san@erm.com
Email 2	patty.vadnais@erm.com

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

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

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

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

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

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

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	VA23-ERMO100-018	AFE/Cost Center:	PO#
Job #:	0700679-02-002 (Blackwater)	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer | Sampler: Katherine Baird

Analysis Request

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	As per Quote VA23-ERMO100-018	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
49	030-SEDGE	6-Sep-23	11:28	TISSUE	1	R			
50	032-SOIL	5-Sep-23	8:46	SOIL	2	R			
51	032-WILL	5-Sep-23	8:46	TISSUE	1	R			
52	032-SEDGE	5-Sep-23	8:46	TISSUE	1	R			
53	032-LAB	5-Sep-23	8:46	TISSUE	1	R			
54	007-SOIL	5-Sep-23	12:05	SOIL	2	R			
55	007-SEDGE	5-Sep-23	12:05	TISSUE	1	R			
56	007-WILL	5-Sep-23	12:05	TISSUE	1	R			
57	004-SOIL	4-Sep-23	8:14	SOIL	2	R			
58	004-SEDGE	4-Sep-23	8:14	TISSUE	1	R			
59	001-SOIL	2-Sep-23	14:37	SOIL	2	R			
60	001-HUCK	2-Sep-23	14:37	TISSUE	1	R			

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

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

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

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

Analysis as per quote VA23-ERMO100-018. Do not include arsenic speciation for tissue

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
15.0	14.1						

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by: JM/R	Date: Sept. 14/23	Time: 9:30	Received by: AR	Date: 15/09/23	Time: 1:15pm

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2018 FRONT

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

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

Bandstra

9°C 16°C 13°C 10°C

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here
(lab use only)

COC Number: 17 -

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	jessica.lowey@erm.com
Email 2	kimberly.san@erm.com
Email 3	amuttray@entiaenviro.com

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	kimberly.san@erm.com
Email 2	patty.vadnais@erm.com

Project Information	
ALS Account # / Quote #:	VA23-ERMO100-018
Job #:	0700679-02-002 (Blackwater)
PO / AFE:	
LSD:	

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

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer Sampler: Katherine Baird

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

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

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

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

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

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	As per Quote VA23-ERMO100-018	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
61	001-SEDGE	2-Sep-23	14:37	TISSUE	1	R		
62	014-SOIL	3-Sep-23	9:26	SOIL	2	R		
63	014-WILL	3-Sep-23	9:26	TISSUE	1	R		
64	024-SOIL	3-Sep-23	15:45	SOIL	2	R		
65	024-SEDGE	3-Sep-23	15:45	TISSUE	1	R		
66	024-LAB	3-Sep-23	15:45	TISSUE	1	R		
67	024-WILL	3-Sep-23	15:45	TISSUE	1	R		
						R		
						R		
						R		
						R		
						R		

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

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

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

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

Analysis as per quote VA23-ERMO100-018. Do not include arsenic speciation for tissue

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
15.0	14.1						

SHIPMENT RELEASE (client use)		
Released by:	Date:	Time:

INITIAL SHIPMENT RECEPTION (lab use only)		
Received by: M.K	Date: Sept. 14/23	Time: 9:30

FINAL SHIPMENT RECEPTION (lab use only)		
Received by: A R	Date: 15/09/23	Time: 1:15pm

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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Bandstra

9°C 16°C 15°C 10°C

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	jessica.lowey@erm.com
Email 2	kimberly.san@erm.com
Email 3	amuttray@entiaenviro.com

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	kimberly.san@erm.com
Email 2	patty.vadnais@erm.com

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	VA23-ERMO100-018	AFE/Cost Center:	PO#
Job #:	0700679-02-002 (Blackwater)	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer | Sampler: Katherine Baird

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

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

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Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	As per Quote VA23-ERMO100-018	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
68	DUP2-SOIL				2	R		
69	DUP3-SOIL				2	R		
70	DUP4-SOIL				2	R		
71	DUP1-WILL				1	R		
72	DUP1-LAB				1	R		
73	DUP1-SEDGE				1	R		
74	DUP2-WILL				1	R		

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

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

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

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

Analysis as per quote VA23-ERMO100-018. Do not include arsenic speciation for tissue

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
15.0	14.1						

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by: M.K	Date: Sept. 14/23	Time: 9:30	Received by: AR	Date: 15/09/23	Time: 1:15pm

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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

Bandstra

9°C 1.6°C 13°C 10°C

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C4042**	Page	: 1 of 13
Amendment	: **(Partial Results)**		
Client	: **ERM Consultants Canada Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Jessica Lowey	Account Manager	: Amber Springer
Address	: 10th Floor, 1100 Melville St. Vancouver BC Canada V6E 4A6	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: 604 689 9460	Telephone	: +1 604 253 4188
Project	: 0700679-02-003 (Blackwater)	Date Samples Received	: 29-Sep-2023 11:00
PO	: 12970	Date Analysis Commenced	: 11-Oct-2023
C-O-C number	: ----	Issue Date	: 22-Nov-2023 17:41
Sampler	: ----		
Site	: ----		
Quote number	: ERM/BW Gold SW (VA22-BWGL100-002/Q56205)		
No. of samples received	: 58		
No. of samples analysed	: 58		

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*
Arshdeep Kaur	Lab Assistant	Metals, Burnaby, British Columbia
Colby Bingham	Laboratory Supervisor	Inorganics, Saskatoon, Saskatchewan
Colby Bingham	Laboratory Supervisor	Metals, Saskatoon, Saskatchewan
Colby Bingham	Laboratory Supervisor	Sask Soils, Saskatoon, Saskatchewan
Hedy Lai	Team Leader - Inorganics	Inorganics, Saskatoon, Saskatchewan
Hedy Lai	Team Leader - Inorganics	Sask Soils, Saskatoon, Saskatchewan
Kimberly Hanson	Laboratory Analyst	Metals, Saskatoon, Saskatchewan
Milad Khani	Laboratory Analyst	Metals, Saskatoon, Saskatchewan
Milad Khani	Laboratory Analyst	Sask Soils, Saskatoon, Saskatchewan

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
mg/kg	milligrams per kilogram
pH units	pH units

<: less than.

>: greater than.

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

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

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

Qualifiers

Qualifier	*Description*
DLM	*Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).*

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	016-SOIL	041-SOIL	020-SOIL	012-SOIL	046-SOIL
					Client sampling date / time	21-Sep-2023 16:51	24-Sep-2023 15:09	21-Sep-2023 15:38	22-Sep-2023 15:48	25-Sep-2023 09:04
						VA23C4042-001	VA23C4042-002	VA23C4042-003	VA23C4042-004	VA23C4042-005
						Result	Result	Result	Result	Result
Physical Tests										
pH (1:2 soil:water)	----	E108/SK	0.10	pH units		5.19	5.45	7.10	6.38	5.43
Particle Size										
Gravel (>2mm)	----	EC184E/SK	1.0	%		<1.0	<1.0	<1.0	<1.0	<1.0
Sand (2.0mm - 0.063mm)	----	EC184E/SK	1.0	%		56.8	22.6	30.0	68.6	49.5
Silt (0.063mm - 0.004mm)	----	EC184E/SK	1.0	%		35.5	63.9	53.0	25.3	37.6
Clay (<0.004mm)	----	EC184E/SK	1.0	%		7.7	13.5	17.0	6.1	12.9
Organic / Inorganic Carbon										
Carbon, total [TC]	----	E351/SK	0.050	%		1.85	8.00	0.940	0.500	1.81
Carbon, inorganic [IC]	----	E354/SK	0.050	%		0.051	0.126	0.073	<0.050	0.052
Carbon, inorganic [IC], (as CaCO3 equivalent)	----	E354/SK	0.40	%		0.43	1.05	0.60	<0.40	0.43
Carbon, total organic [TOC]	----	EC356/SK	0.050	%		1.80	7.87	0.867	0.500	1.76
Organic matter	----	EC356/SK	0.10	%		3.10	13.6	1.49	0.86	3.03
Plant Available Nutrients										
Phosphate, available (as P)	14265-44-2	E384/SK	2.0	mg/kg		43.6	63.1	50.6	43.2	8.4
Potassium, available	7440-09-7	E390/SK	20	mg/kg		80	544	266	76	163
Sulfate, available (as S)	14808-79-8	E497.SO4/SK	3.0	mg/kg		<6.0	<14.8 DLM	<6.0	<6.0	124
Nitrate + Nitrite, available (as N)	----	E269.N+N/SK	1.0	mg/kg		<1.0	<2.5 DLM	<1.0	<1.0	3.8
Metals										
Aluminum	7429-90-5	E440/SK	50	mg/kg		12500	14900	11900	12900	12000
Antimony	7440-36-0	E440/SK	0.10	mg/kg		0.30	0.14	0.34	0.43	0.86
Arsenic	7440-38-2	E440/SK	0.10	mg/kg		3.68	1.62	3.90	5.44	13.3
Barium	7440-39-3	E440/SK	0.50	mg/kg		68.9	139	79.7	77.7	104
Beryllium	7440-41-7	E440/SK	0.10	mg/kg		0.39	0.28	0.55	0.45	0.61
Bismuth	7440-69-9	E440/SK	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Boron	7440-42-8	E440/SK	5.0	mg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
Cadmium	7440-43-9	E440/SK	0.020	mg/kg		0.046	0.128	0.100	0.058	0.304
Calcium	7440-70-2	E440/SK	50	mg/kg		2020	6280	4360	2880	4000
Chromium	7440-47-3	E440/SK	0.50	mg/kg		19.3	32.7	24.0	17.9	23.0
Cobalt	7440-48-4	E440/SK	0.10	mg/kg		5.98	7.39	10.8	7.22	7.12

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	016-SOIL	041-SOIL	020-SOIL	012-SOIL	046-SOIL
					Client sampling date / time	21-Sep-2023 16:51	24-Sep-2023 15:09	21-Sep-2023 15:38	22-Sep-2023 15:48	25-Sep-2023 09:04
						VA23C4042-001	VA23C4042-002	VA23C4042-003	VA23C4042-004	VA23C4042-005
						Result	Result	Result	Result	Result
Metals										
Copper	7440-50-8	E440/SK	0.50	mg/kg		8.92	8.92	14.0	13.2	11.4
Iron	7439-89-6	E440/SK	50	mg/kg		20700	20200	29800	23100	16200
Lead	7439-92-1	E440/SK	0.50	mg/kg		4.44	4.67	7.66	5.70	11.8
Lithium	7439-93-2	E440/SK	2.0	mg/kg		6.0	4.6	5.8	7.4	7.4
Magnesium	7439-95-4	E440/SK	20	mg/kg		2950	2490	4270	4260	3420
Manganese	7439-96-5	E440/SK	1.0	mg/kg		197	875	506	283	330
Mercury	7439-97-6	E510/SK	0.0050	mg/kg		0.0192	0.0520	0.0168	0.0154	0.0281
Molybdenum	7439-98-7	E440/SK	0.10	mg/kg		0.54	0.87	0.61	0.79	2.60
Nickel	7440-02-0	E440/SK	0.50	mg/kg		14.6	12.5	15.6	11.3	10.4
Phosphorus	7723-14-0	E440/SK	50	mg/kg		629	1270	769	705	615
Potassium	7440-09-7	E440/SK	100	mg/kg		420	1140	1120	850	870
Selenium	7782-49-2	E440/SK	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	0.30
Silver	7440-22-4	E440/SK	0.10	mg/kg		<0.10	0.14	<0.10	<0.10	0.18
Sodium	7440-23-5	E440/SK	50	mg/kg		111	95	165	186	249
Strontium	7440-24-6	E440/SK	0.50	mg/kg		15.6	66.2	38.2	23.2	28.1
Sulfur	7704-34-9	E440/SK	1000	mg/kg		<1000	<1000	<1000	<1000	<1000
Thallium	7440-28-0	E440/SK	0.050	mg/kg		0.050	0.073	0.068	0.089	0.128
Tin	7440-31-5	E440/SK	2.0	mg/kg		<2.0	<2.0	<2.0	<2.0	<2.0
Titanium	7440-32-6	E440/SK	1.0	mg/kg		732	527	1770	1020	682
Tungsten	7440-33-7	E440/SK	0.50	mg/kg		<0.50	<0.50	<0.50	0.69	<0.50
Uranium	7440-61-1	E440/SK	0.050	mg/kg		0.302	0.301	0.428	0.461	8.26
Vanadium	7440-62-2	E440/SK	0.20	mg/kg		51.8	48.9	67.1	52.0	50.5
Zinc	7440-66-6	E440/SK	2.0	mg/kg		36.3	50.1	62.6	49.2	48.8
Zirconium	7440-67-7	E440/SK	1.0	mg/kg		4.4	1.7	18.7	9.4	4.1

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

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

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	034-SOIL	044-SOIL	045-SOIL	035-SOIL	037-SOIL
					Client sampling date / time	25-Sep-2023 10:20	24-Sep-2023 16:54	25-Sep-2023 08:14	23-Sep-2023 16:16	23-Sep-2023 17:03
						VA23C4042-006	VA23C4042-007	VA23C4042-008	VA23C4042-009	VA23C4042-010
						Result	Result	Result	Result	Result
Physical Tests										
pH (1:2 soil:water)	----	E108/SK	0.10	pH units		4.64	5.16	4.81	6.52	5.52
Particle Size										
Gravel (>2mm)	----	EC184E/SK	1.0	%		<1.0	<1.0	<1.0	<1.0	<1.0
Sand (2.0mm - 0.063mm)	----	EC184E/SK	1.0	%		46.9	27.0	37.4	79.3	80.4
Silt (0.063mm - 0.004mm)	----	EC184E/SK	1.0	%		43.1	54.2	52.4	18.0	16.5
Clay (<0.004mm)	----	EC184E/SK	1.0	%		10.0	18.8	10.2	2.7	3.1
Organic / Inorganic Carbon										
Carbon, total [TC]	----	E351/SK	0.050	%		4.96	2.55	3.75	4.43	3.59
Carbon, inorganic [IC]	----	E354/SK	0.050	%		0.070	0.057	0.061	0.094	0.078
Carbon, inorganic [IC], (as CaCO3 equivalent)	----	E354/SK	0.40	%		0.58	0.47	0.51	0.78	0.65
Carbon, total organic [TOC]	----	EC356/SK	0.050	%		4.89	2.49	3.69	4.34	3.51
Organic matter	----	EC356/SK	0.10	%		8.43	4.29	6.36	7.48	6.05
Plant Available Nutrients										
Phosphate, available (as P)	14265-44-2	E384/SK	2.0	mg/kg		4.6	18.1	39.3	36.5	24.1
Potassium, available	7440-09-7	E390/SK	20	mg/kg		146	103	125	330	109
Sulfate, available (as S)	14808-79-8	E497.SO4/SK	3.0	mg/kg		<6.0	<6.0	<6.0	<6.0	<6.0
Nitrate + Nitrite, available (as N)	----	E269.N+N/SK	1.0	mg/kg		<1.0	<1.0	<1.0	<1.0	<1.0
Metals										
Aluminum	7429-90-5	E440/SK	50	mg/kg		19500	11800	14300	16000	15800
Antimony	7440-36-0	E440/SK	0.10	mg/kg		0.45	0.33	0.38	0.29	0.25
Arsenic	7440-38-2	E440/SK	0.10	mg/kg		7.03	7.25	7.18	3.51	3.27
Barium	7440-39-3	E440/SK	0.50	mg/kg		45.6	78.0	80.6	164	149
Beryllium	7440-41-7	E440/SK	0.10	mg/kg		0.25	0.56	0.34	0.39	0.40
Bismuth	7440-69-9	E440/SK	0.20	mg/kg		<0.20	0.33	0.22	<0.20	<0.20
Boron	7440-42-8	E440/SK	5.0	mg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
Cadmium	7440-43-9	E440/SK	0.020	mg/kg		0.073	0.115	0.108	0.125	0.135
Calcium	7440-70-2	E440/SK	50	mg/kg		2220	2400	1710	3520	2250
Chromium	7440-47-3	E440/SK	0.50	mg/kg		50.8	17.2	14.9	17.3	18.0
Cobalt	7440-48-4	E440/SK	0.10	mg/kg		9.53	8.41	5.38	7.28	7.46
Copper	7440-50-8	E440/SK	0.50	mg/kg		16.0	8.30	7.38	8.44	8.94

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	034-SOIL	044-SOIL	045-SOIL	035-SOIL	037-SOIL
					Client sampling date / time	25-Sep-2023 10:20	24-Sep-2023 16:54	25-Sep-2023 08:14	23-Sep-2023 16:16	23-Sep-2023 17:03
						VA23C4042-006	VA23C4042-007	VA23C4042-008	VA23C4042-009	VA23C4042-010
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E440/SK	50	mg/kg		35700	16100	20400	25100	24400
Lead	7439-92-1	E440/SK	0.50	mg/kg		6.15	12.8	10.4	5.04	5.07
Lithium	7439-93-2	E440/SK	2.0	mg/kg		13.9	9.7	10.1	8.1	9.2
Magnesium	7439-95-4	E440/SK	20	mg/kg		9250	2880	2580	4520	4510
Manganese	7439-96-5	E440/SK	1.0	mg/kg		306	646	396	1720	1490
Mercury	7439-97-6	E510/SK	0.0050	mg/kg		0.0404	0.0292	0.0358	0.0229	0.0243
Molybdenum	7439-98-7	E440/SK	0.10	mg/kg		1.72	2.56	0.83	0.62	0.56
Nickel	7440-02-0	E440/SK	0.50	mg/kg		21.4	8.68	8.48	15.0	17.5
Phosphorus	7723-14-0	E440/SK	50	mg/kg		438	496	975	764	956
Potassium	7440-09-7	E440/SK	100	mg/kg		540	640	700	880	630
Selenium	7782-49-2	E440/SK	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Silver	7440-22-4	E440/SK	0.10	mg/kg		0.10	0.14	0.17	<0.10	<0.10
Sodium	7440-23-5	E440/SK	50	mg/kg		80	168	84	71	98
Strontium	7440-24-6	E440/SK	0.50	mg/kg		12.1	22.9	13.0	23.1	14.8
Sulfur	7704-34-9	E440/SK	1000	mg/kg		<1000	<1000	<1000	<1000	<1000
Thallium	7440-28-0	E440/SK	0.050	mg/kg		<0.050	0.132	0.112	0.085	0.099
Tin	7440-31-5	E440/SK	2.0	mg/kg		<2.0	<2.0	<2.0	<2.0	<2.0
Titanium	7440-32-6	E440/SK	1.0	mg/kg		1940	898	736	660	555
Tungsten	7440-33-7	E440/SK	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Uranium	7440-61-1	E440/SK	0.050	mg/kg		0.285	2.01	0.370	0.246	0.253
Vanadium	7440-62-2	E440/SK	0.20	mg/kg		102	41.6	47.2	62.1	56.2
Zinc	7440-66-6	E440/SK	2.0	mg/kg		41.6	50.0	70.0	110	120
Zirconium	7440-67-7	E440/SK	1.0	mg/kg		5.0	4.4	2.1	1.8	<1.0

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

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

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	011-SOIL	038-SOIL	DUP-SOIL	033-SOIL	036-SOIL
					Client sampling date / time	22-Sep-2023 16:28	23-Sep-2023 15:55	21-Sep-2023 16:51	22-Sep-2023 15:07	22-Sep-2023 16:38
						VA23C4042-011	VA23C4042-012	VA23C4042-013	VA23C4042-014	VA23C4042-015
						Result	Result	Result	Result	Result
Physical Tests										
pH (1:2 soil:water)	----	E108/SK	0.10	pH units		7.30	5.64	5.22	5.66	6.47
Particle Size										
Gravel (>2mm)	----	EC184E/SK	1.0	%		<1.0	<1.0	<1.0	<1.0	<1.0
Sand (2.0mm - 0.063mm)	----	EC184E/SK	1.0	%		53.4	71.5	54.3	68.2	76.6
Silt (0.063mm - 0.004mm)	----	EC184E/SK	1.0	%		36.1	24.5	37.6	28.5	20.7
Clay (<0.004mm)	----	EC184E/SK	1.0	%		10.5	4.0	8.1	3.3	2.7
Organic / Inorganic Carbon										
Carbon, total [TC]	----	E351/SK	0.050	%		0.427	8.01	1.66	2.03	1.70
Carbon, inorganic [IC]	----	E354/SK	0.050	%		0.080	0.103	<0.050	0.108	0.084
Carbon, inorganic [IC], (as CaCO3 equivalent)	----	E354/SK	0.40	%		0.67	0.86	<0.40	0.90	0.70
Carbon, total organic [TOC]	----	EC356/SK	0.050	%		0.347	7.91	1.66	1.92	1.62
Organic matter	----	EC356/SK	0.10	%		0.60	13.6	2.86	3.31	2.79
Plant Available Nutrients										
Phosphate, available (as P)	14265-44-2	E384/SK	2.0	mg/kg		7.9	119	44.4	4.0	33.5
Potassium, available	7440-09-7	E390/SK	20	mg/kg		96	485	81	120	356
Sulfate, available (as S)	14808-79-8	E497.SO4/SK	3.0	mg/kg		<6.0	<6.0	<6.0	<6.0	<6.0
Nitrate + Nitrite, available (as N)	----	E269.N+N/SK	1.0	mg/kg		<1.0	<1.0	<1.0	<1.0	<1.0
Metals										
Aluminum	7429-90-5	E440/SK	50	mg/kg		17400	14600	12900	22700	22600
Antimony	7440-36-0	E440/SK	0.10	mg/kg		0.20	0.24	0.30	0.38	0.29
Arsenic	7440-38-2	E440/SK	0.10	mg/kg		3.17	3.84	3.87	7.96	4.06
Barium	7440-39-3	E440/SK	0.50	mg/kg		53.1	195	67.8	63.1	138
Beryllium	7440-41-7	E440/SK	0.10	mg/kg		0.51	0.43	0.37	0.53	0.56
Bismuth	7440-69-9	E440/SK	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Boron	7440-42-8	E440/SK	5.0	mg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
Cadmium	7440-43-9	E440/SK	0.020	mg/kg		0.075	0.241	0.049	0.090	0.106
Calcium	7440-70-2	E440/SK	50	mg/kg		6630	4920	2010	2150	2720
Chromium	7440-47-3	E440/SK	0.50	mg/kg		36.2	17.4	19.2	27.9	23.1
Cobalt	7440-48-4	E440/SK	0.10	mg/kg		24.1	8.18	5.84	11.8	9.05
Copper	7440-50-8	E440/SK	0.50	mg/kg		35.6	12.4	8.88	14.0	11.5

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	011-SOIL	038-SOIL	DUP-SOIL	033-SOIL	036-SOIL
					Client sampling date / time	22-Sep-2023 16:28	23-Sep-2023 15:55	21-Sep-2023 16:51	22-Sep-2023 15:07	22-Sep-2023 16:38
						VA23C4042-011	VA23C4042-012	VA23C4042-013	VA23C4042-014	VA23C4042-015
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E440/SK	50	mg/kg		43400	24000	21100	33900	31500
Lead	7439-92-1	E440/SK	0.50	mg/kg		3.29	6.46	4.46	5.04	6.10
Lithium	7439-93-2	E440/SK	2.0	mg/kg		4.8	9.2	5.9	9.8	11.3
Magnesium	7439-95-4	E440/SK	20	mg/kg		15900	4820	2900	5160	5670
Manganese	7439-96-5	E440/SK	1.0	mg/kg		680	1850	195	272	1060
Mercury	7439-97-6	E510/SK	0.0050	mg/kg		0.0125	0.0454	0.0330	0.0342	0.0182
Molybdenum	7439-98-7	E440/SK	0.10	mg/kg		0.50	0.67	0.54	1.19	0.64
Nickel	7440-02-0	E440/SK	0.50	mg/kg		58.6	16.6	14.4	24.0	21.1
Phosphorus	7723-14-0	E440/SK	50	mg/kg		850	1470	680	919	1040
Potassium	7440-09-7	E440/SK	100	mg/kg		610	1200	450	480	960
Selenium	7782-49-2	E440/SK	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Silver	7440-22-4	E440/SK	0.10	mg/kg		<0.10	<0.10	<0.10	0.11	<0.10
Sodium	7440-23-5	E440/SK	50	mg/kg		567	118	118	133	96
Strontium	7440-24-6	E440/SK	0.50	mg/kg		60.1	26.4	15.9	14.3	17.0
Sulfur	7704-34-9	E440/SK	1000	mg/kg		<1000	<1000	<1000	<1000	<1000
Thallium	7440-28-0	E440/SK	0.050	mg/kg		0.052	0.066	0.052	<0.050	0.101
Tin	7440-31-5	E440/SK	2.0	mg/kg		<2.0	<2.0	<2.0	<2.0	<2.0
Titanium	7440-32-6	E440/SK	1.0	mg/kg		1050	558	763	1620	898
Tungsten	7440-33-7	E440/SK	0.50	mg/kg		<0.50	<0.50	<0.50	0.54	<0.50
Uranium	7440-61-1	E440/SK	0.050	mg/kg		0.365	0.240	0.302	0.304	0.287
Vanadium	7440-62-2	E440/SK	0.20	mg/kg		57.5	52.8	51.7	70.3	75.3
Zinc	7440-66-6	E440/SK	2.0	mg/kg		64.8	156	36.3	60.0	114
Zirconium	7440-67-7	E440/SK	1.0	mg/kg		13.0	1.2	4.4	8.5	3.4

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

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

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	028-SOIL	039-SOIL	043-SOIL	025-SOIL	042-SOIL
					Client sampling date / time	25-Sep-2023 13:14	22-Sep-2023 15:38	24-Sep-2023 16:35	21-Sep-2023 14:06	24-Sep-2023 15:47
						VA23C4042-016	VA23C4042-017	VA23C4042-018	VA23C4042-019	VA23C4042-020
						Result	Result	Result	Result	Result
Physical Tests										
pH (1:2 soil:water)	----	E108/SK	0.10	pH units		5.38	6.34	5.97	5.71	5.01
Particle Size										
Gravel (>2mm)	----	EC184E/SK	1.0	%		<1.0	<1.0	<1.0	<1.0	<1.0
Sand (2.0mm - 0.063mm)	----	EC184E/SK	1.0	%		9.1	78.3	50.8	69.9	55.5
Silt (0.063mm - 0.004mm)	----	EC184E/SK	1.0	%		61.9	19.2	39.1	26.4	39.0
Clay (<0.004mm)	----	EC184E/SK	1.0	%		29.0	2.5	10.1	3.7	5.5
Organic / Inorganic Carbon										
Carbon, total [TC]	----	E351/SK	0.050	%		8.01	3.28	1.46	3.26	2.54
Carbon, inorganic [IC]	----	E354/SK	0.050	%		0.159	0.078	0.058	0.081	0.053
Carbon, inorganic [IC], (as CaCO3 equivalent)	----	E354/SK	0.40	%		1.32	0.65	0.49	0.68	0.44
Carbon, total organic [TOC]	----	EC356/SK	0.050	%		7.85	3.20	1.40	3.18	2.49
Organic matter	----	EC356/SK	0.10	%		13.5	5.52	2.41	5.48	4.29
Plant Available Nutrients										
Phosphate, available (as P)	14265-44-2	E384/SK	2.0	mg/kg		18.8	69.4	2.9	96.2	48.5
Potassium, available	7440-09-7	E390/SK	20	mg/kg		156	267	26	183	97
Sulfate, available (as S)	14808-79-8	E497.SO4/SK	3.0	mg/kg		19.0	<6.0	<6.0	<6.0	<6.0
Nitrate + Nitrite, available (as N)	----	E269.N+N/SK	1.0	mg/kg		3.9	<1.0	18.1	<1.0	<1.0
Metals										
Aluminum	7429-90-5	E440/SK	50	mg/kg		36600	13000	9210	14800	12200
Antimony	7440-36-0	E440/SK	0.10	mg/kg		0.51	0.20	0.26	0.32	0.20
Arsenic	7440-38-2	E440/SK	0.10	mg/kg		38.3	2.20	6.72	4.91	2.74
Barium	7440-39-3	E440/SK	0.50	mg/kg		154	151	44.9	72.5	55.4
Beryllium	7440-41-7	E440/SK	0.10	mg/kg		1.33	0.36	0.24	0.34	0.31
Bismuth	7440-69-9	E440/SK	0.20	mg/kg		0.23	<0.20	<0.20	<0.20	<0.20
Boron	7440-42-8	E440/SK	5.0	mg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
Cadmium	7440-43-9	E440/SK	0.020	mg/kg		0.569	0.136	0.097	0.149	0.066
Calcium	7440-70-2	E440/SK	50	mg/kg		8040	2990	3870	3380	1600
Chromium	7440-47-3	E440/SK	0.50	mg/kg		32.5	15.5	15.0	17.5	14.5
Cobalt	7440-48-4	E440/SK	0.10	mg/kg		9.69	6.43	5.26	7.30	3.96
Copper	7440-50-8	E440/SK	0.50	mg/kg		22.0	6.10	6.16	13.2	6.41

Analytical Results

Sub-Matrix: Soil/Solid
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	028-SOIL	039-SOIL	043-SOIL	025-SOIL	042-SOIL
					Client sampling date / time	25-Sep-2023 13:14	22-Sep-2023 15:38	24-Sep-2023 16:35	21-Sep-2023 14:06	24-Sep-2023 15:47
						VA23C4042-016	VA23C4042-017	VA23C4042-018	VA23C4042-019	VA23C4042-020
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E440/SK	50	mg/kg		32100	22900	16800	26700	19600
Lead	7439-92-1	E440/SK	0.50	mg/kg		11.0	4.61	8.93	4.89	5.19
Lithium	7439-93-2	E440/SK	2.0	mg/kg		16.6	6.6	6.6	9.2	5.6
Magnesium	7439-95-4	E440/SK	20	mg/kg		4320	3620	3570	5300	2100
Manganese	7439-96-5	E440/SK	1.0	mg/kg		965	1580	350	479	150
Mercury	7439-97-6	E510/SK	0.0050	mg/kg		0.0602	0.0226	0.0095	0.0206	0.0239
Molybdenum	7439-98-7	E440/SK	0.10	mg/kg		3.68	0.48	1.98	0.54	0.60
Nickel	7440-02-0	E440/SK	0.50	mg/kg		16.5	12.4	8.30	13.7	6.48
Phosphorus	7723-14-0	E440/SK	50	mg/kg		1440	1070	314	1170	1060
Potassium	7440-09-7	E440/SK	100	mg/kg		970	790	530	760	530
Selenium	7782-49-2	E440/SK	0.20	mg/kg		0.33	<0.20	<0.20	<0.20	<0.20
Silver	7440-22-4	E440/SK	0.10	mg/kg		0.43	<0.10	<0.10	0.10	<0.10
Sodium	7440-23-5	E440/SK	50	mg/kg		191	79	146	133	116
Strontium	7440-24-6	E440/SK	0.50	mg/kg		63.2	18.4	25.6	20.2	11.6
Sulfur	7704-34-9	E440/SK	1000	mg/kg		<1000	<1000	<1000	<1000	<1000
Thallium	7440-28-0	E440/SK	0.050	mg/kg		0.172	0.071	0.059	0.059	<0.050
Tin	7440-31-5	E440/SK	2.0	mg/kg		<2.0	<2.0	<2.0	<2.0	<2.0
Titanium	7440-32-6	E440/SK	1.0	mg/kg		607	587	838	738	749
Tungsten	7440-33-7	E440/SK	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Uranium	7440-61-1	E440/SK	0.050	mg/kg		5.33	0.216	0.724	0.301	0.383
Vanadium	7440-62-2	E440/SK	0.20	mg/kg		69.4	53.6	48.7	65.6	48.6
Zinc	7440-66-6	E440/SK	2.0	mg/kg		115	129	33.1	81.4	37.4
Zirconium	7440-67-7	E440/SK	1.0	mg/kg		2.1	1.1	1.3	2.2	3.4

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

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

Analytical Results

Sub-Matrix: **Vegetation**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	020-SEDGE	039-SEDGE	038-SEDGE	041-SEDGE	028-SEDGE
					Client sampling date / time	21-Sep-2023 15:38	23-Sep-2023 16:38	23-Sep-2023 15:55	24-Sep-2023 15:09	25-Sep-2023 13:14
						VA23C4042-021	VA23C4042-022	VA23C4042-023	VA23C4042-024	VA23C4042-025
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		60.0	60.5	69.6	67.0	55.6

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

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

Analytical Results

Sub-Matrix: **Vegetation**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	037-SEDGE	036-SEDGE	025-SEDGE	016-SEDGE	033-SEDGE
					Client sampling date / time	23-Sep-2023 17:03	23-Sep-2023 16:38	21-Sep-2023 14:06	21-Sep-2023 16:51	22-Sep-2023 15:07
						VA23C4042-026	VA23C4042-027	VA23C4042-028	VA23C4042-029	VA23C4042-030
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		50.2	51.3	69.6	54.6	35.0

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

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

Analytical Results

Sub-Matrix: **Vegetation**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	011-SEDGE	012-SEDGE	016-WILL	041-WILL	020-WILL
					Client sampling date / time	22-Sep-2023 16:28	22-Sep-2023 15:48	21-Sep-2023 16:51	24-Sep-2023 15:09	21-Sep-2023 15:38
						VA23C4042-031	VA23C4042-032	VA23C4042-033	VA23C4042-034	VA23C4042-035
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		73.5	49.8	62.0	56.6	55.0

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

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

Analytical Results

Sub-Matrix: **Vegetation**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	012-WILL	046-WILL	034-WILL	044-WILL	045-WILL
					Client sampling date / time	22-Sep-2023 15:48	25-Sep-2023 09:04	25-Sep-2023 10:20	24-Sep-2023 16:54	25-Sep-2023 08:14
						VA23C4042-036	VA23C4042-037	VA23C4042-038	VA23C4042-039	VA23C4042-040
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		62.4	64.5	66.4	68.7	61.7

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

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

Analytical Results

Sub-Matrix: **Vegetation**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	035-WILL	037-WILL	011-WILL	038-WILL	033-WILL
					Client sampling date / time	23-Sep-2023 16:16	23-Sep-2023 17:03	22-Sep-2023 16:28	23-Sep-2023 15:55	22-Sep-2023 15:07
						VA23C4042-041	VA23C4042-042	VA23C4042-043	VA23C4042-044	VA23C4042-045
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		61.8	58.6	61.5	66.8	66.1

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

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

Analytical Results

Sub-Matrix: **Vegetation**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	036-WILL	028-WILL	039-WILL	043-WILL	025-WILL
					Client sampling date / time	22-Sep-2023 16:38	25-Sep-2023 13:14	22-Sep-2023 15:38	24-Sep-2023 16:35	21-Sep-2023 14:06
						VA23C4042-046	VA23C4042-047	VA23C4042-048	VA23C4042-049	VA23C4042-050
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		56.5	74.2	64.3	61.8	57.7

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

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

Analytical Results

Sub-Matrix: **Vegetation**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	042-WILL	011-LAB	012-LAB	033-LAB	036-LAB
					Client sampling date / time	24-Sep-2023 15:47	22-Sep-2023 16:28	22-Sep-2023 15:48	22-Sep-2023 15:07	23-Sep-2023 16:38
						VA23C4042-051	VA23C4042-052	VA23C4042-053	VA23C4042-054	VA23C4042-055
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		60.4	47.9	48.5	52.2	56.1

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

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

Analytical Results

Sub-Matrix: **Vegetation**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	041-LAB	034-SEDGE	035-SEDGE	----	----
					Client sampling date / time	24-Sep-2023 15:09	25-Sep-2023 00:00	23-Sep-2023 00:00	----	----
						VA23C4042-056	VA23C4042-057	VA23C4042-058	--------	--------
						Result	Result	Result	----	----
Physical Tests										
Moisture	----	E144/VA	0.50	%		49.1	59.1	64.6	----	----

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

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

ALS Canada Ltd.

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C4042**	Page	: 1 of 49
Amendment	: (Partial Results)		
Client	: **ERM Consultants Canada Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Jessica Lowey	Account Manager	: Amber Springer
Address	: 10th Floor, 1100 Melville St. Vancouver BC Canada V6E 4A6	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: 0700679-02-003 (Blackwater)	Date Samples Received	: 29-Sep-2023 11:00
PO	: 12970	Issue Date	: 22-Nov-2023 17:41
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: ERM/BW Gold SW (VA22-BWGL100-002/Q56205)		
No. of samples received	: 58		
No. of samples analysed	: 58		

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, Routine)										
LDPE bag 011-LAB	E510	22-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 011-SEDGE	E510	22-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 011-WILL	E510	22-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 012-LAB	E510	22-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 012-SEDGE	E510	22-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 012-WILL	E510	22-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 016-SEDGE	E510	21-Sep-2023	----	365 days	----			365 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, Routine)										
LDPE bag 016-WILL	E510	21-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 020-SEDGE	E510	21-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 020-WILL	E510	21-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 025-SEDGE	E510	21-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 025-WILL	E510	21-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 028-SEDGE	E510	25-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 028-WILL	E510	25-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 033-LAB	E510	22-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 033-SEDGE	E510	22-Sep-2023	----	365 days	----			365 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, Routine)										
LDPE bag 033-WILL	E510	22-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 034-SEDGE	E510	25-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 034-WILL	E510	25-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 035-SEDGE	E510	23-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 035-WILL	E510	23-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 036-LAB	E510	23-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 036-SEDGE	E510	23-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 036-WILL	E510	22-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 037-SEDGE	E510	23-Sep-2023	----	365 days	----			365 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, Routine)										
LDPE bag 037-WILL	E510	23-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 038-SEDGE	E510	23-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 038-WILL	E510	23-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 039-SEDGE	E510	23-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 039-WILL	E510	22-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 041-LAB	E510	24-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 041-SEDGE	E510	24-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 041-WILL	E510	24-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 042-WILL	E510	24-Sep-2023	----	365 days	----			365 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, Routine)										
LDPE bag 043-WILL	E510	24-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 044-WILL	E510	24-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 045-WILL	E510	25-Sep-2023	----	365 days	----			365 days	----	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 046-WILL	E510	25-Sep-2023	----	365 days	----			365 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 011-LAB	E440	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 011-SEDGE	E440	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 011-WILL	E440	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 012-LAB	E440	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 012-SEDGE	E440	22-Sep-2023	----	730 days	----			730 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, Routine)										
LDPE bag 012-WILL	E440	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 016-SEDGE	E440	21-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 016-WILL	E440	21-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 020-SEDGE	E440	21-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 020-WILL	E440	21-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 025-SEDGE	E440	21-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 025-WILL	E440	21-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 028-SEDGE	E440	25-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 028-WILL	E440	25-Sep-2023	----	730 days	----			730 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, Routine)										
LDPE bag 033-LAB	E440	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 033-SEDGE	E440	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 033-WILL	E440	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 034-SEDGE	E440	25-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 034-WILL	E440	25-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 035-SEDGE	E440	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 035-WILL	E440	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 036-LAB	E440	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 036-SEDGE	E440	23-Sep-2023	----	730 days	----			730 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, Routine)										
LDPE bag 036-WILL	E440	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 037-SEDGE	E440	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 037-WILL	E440	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 038-SEDGE	E440	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 038-WILL	E440	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 039-SEDGE	E440	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 039-WILL	E440	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 041-LAB	E440	24-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 041-SEDGE	E440	24-Sep-2023	----	730 days	----			730 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, Routine)										
LDPE bag 041-WILL	E440	24-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 042-WILL	E440	24-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 043-WILL	E440	24-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 044-WILL	E440	24-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 045-WILL	E440	25-Sep-2023	----	730 days	----			730 days	----	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 046-WILL	E440	25-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 011-LAB	E440.Ag	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 011-SEDGE	E440.Ag	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 011-WILL	E440.Ag	22-Sep-2023	----	730 days	----			730 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 : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 012-LAB	E440.Ag	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 012-SEDGE	E440.Ag	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 012-WILL	E440.Ag	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 016-SEDGE	E440.Ag	21-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 016-WILL	E440.Ag	21-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 020-SEDGE	E440.Ag	21-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 020-WILL	E440.Ag	21-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 025-SEDGE	E440.Ag	21-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 025-WILL	E440.Ag	21-Sep-2023	----	730 days	----			730 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 : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 028-SEDGE	E440.Ag	25-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 028-WILL	E440.Ag	25-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 033-LAB	E440.Ag	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 033-SEDGE	E440.Ag	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 033-WILL	E440.Ag	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 034-SEDGE	E440.Ag	25-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 034-WILL	E440.Ag	25-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 035-SEDGE	E440.Ag	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 035-WILL	E440.Ag	23-Sep-2023	----	730 days	----			730 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 : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 036-LAB	E440.Ag	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 036-SEDGE	E440.Ag	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 036-WILL	E440.Ag	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 037-SEDGE	E440.Ag	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 037-WILL	E440.Ag	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 038-SEDGE	E440.Ag	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 038-WILL	E440.Ag	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 039-SEDGE	E440.Ag	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 039-WILL	E440.Ag	22-Sep-2023	----	730 days	----			730 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 : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 041-LAB	E440.Ag	24-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 041-SEDGE	E440.Ag	24-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 041-WILL	E440.Ag	24-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 042-WILL	E440.Ag	24-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 043-WILL	E440.Ag	24-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 044-WILL	E440.Ag	24-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 045-WILL	E440.Ag	25-Sep-2023	----	730 days	----			730 days	----	
Metals : Silver in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 046-WILL	E440.Ag	25-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 011-LAB	E440.Ti	22-Sep-2023	----	730 days	----			730 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 : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 011-SEDGE	E440.Ti	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 011-WILL	E440.Ti	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 012-LAB	E440.Ti	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 012-SEDGE	E440.Ti	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 012-WILL	E440.Ti	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 016-SEDGE	E440.Ti	21-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 016-WILL	E440.Ti	21-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 020-SEDGE	E440.Ti	21-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 020-WILL	E440.Ti	21-Sep-2023	----	730 days	----			730 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*	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 025-SEDGE	E440.Ti	21-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 025-WILL	E440.Ti	21-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 028-SEDGE	E440.Ti	25-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 028-WILL	E440.Ti	25-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 033-LAB	E440.Ti	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 033-SEDGE	E440.Ti	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 033-WILL	E440.Ti	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 034-SEDGE	E440.Ti	25-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 034-WILL	E440.Ti	25-Sep-2023	----	730 days	----			730 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 : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 035-SEDGE	E440.Ti	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 035-WILL	E440.Ti	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 036-LAB	E440.Ti	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 036-SEDGE	E440.Ti	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 036-WILL	E440.Ti	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 037-SEDGE	E440.Ti	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 037-WILL	E440.Ti	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 038-SEDGE	E440.Ti	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 038-WILL	E440.Ti	23-Sep-2023	----	730 days	----			730 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 : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 039-SEDGE	E440.Ti	23-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 039-WILL	E440.Ti	22-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 041-LAB	E440.Ti	24-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 041-SEDGE	E440.Ti	24-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 041-WILL	E440.Ti	24-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 042-WILL	E440.Ti	24-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 043-WILL	E440.Ti	24-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 044-WILL	E440.Ti	24-Sep-2023	----	730 days	----			730 days	----	
Metals : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 045-WILL	E440.Ti	25-Sep-2023	----	730 days	----			730 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 : Titanium in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 046-WILL	E440.Ti	25-Sep-2023	----	730 days	----			730 days	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 028-SEDGE	E144	25-Sep-2023	----	----	----		14-Nov-2023	----	50 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 028-WILL	E144	25-Sep-2023	----	----	----		14-Nov-2023	----	50 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 034-SEDGE	E144	25-Sep-2023	----	----	----		14-Nov-2023	----	50 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 034-WILL	E144	25-Sep-2023	----	----	----		14-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 041-LAB	E144	24-Sep-2023	----	----	----		14-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 041-SEDGE	E144	24-Sep-2023	----	----	----		14-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 041-WILL	E144	24-Sep-2023	----	----	----		14-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 042-WILL	E144	24-Sep-2023	----	----	----		14-Nov-2023	----	51 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 : Moisture Content by Gravimetry										
LDPE bag 043-WILL	E144	24-Sep-2023	----	----	----		14-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 044-WILL	E144	24-Sep-2023	----	----	----		14-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 045-WILL	E144	25-Sep-2023	----	----	----		14-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 046-WILL	E144	25-Sep-2023	----	----	----		14-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 035-SEDGE	E144	23-Sep-2023	----	----	----		14-Nov-2023	----	52 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 035-WILL	E144	23-Sep-2023	----	----	----		14-Nov-2023	----	52 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 036-LAB	E144	23-Sep-2023	----	----	----		14-Nov-2023	----	52 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 036-SEDGE	E144	23-Sep-2023	----	----	----		14-Nov-2023	----	52 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 037-SEDGE	E144	23-Sep-2023	----	----	----		14-Nov-2023	----	52 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 : Moisture Content by Gravimetry										
LDPE bag 037-WILL	E144	23-Sep-2023	----	----	----		14-Nov-2023	----	52 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 038-SEDGE	E144	23-Sep-2023	----	----	----		14-Nov-2023	----	52 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 038-WILL	E144	23-Sep-2023	----	----	----		14-Nov-2023	----	52 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 039-SEDGE	E144	23-Sep-2023	----	----	----		14-Nov-2023	----	52 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 011-LAB	E144	22-Sep-2023	----	----	----		14-Nov-2023	----	53 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 011-SEDGE	E144	22-Sep-2023	----	----	----		14-Nov-2023	----	53 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 011-WILL	E144	22-Sep-2023	----	----	----		14-Nov-2023	----	53 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 012-LAB	E144	22-Sep-2023	----	----	----		14-Nov-2023	----	53 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 012-SEDGE	E144	22-Sep-2023	----	----	----		14-Nov-2023	----	53 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 : Moisture Content by Gravimetry										
LDPE bag 012-WILL	E144	22-Sep-2023	----	----	----		14-Nov-2023	----	53 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 033-LAB	E144	22-Sep-2023	----	----	----		14-Nov-2023	----	53 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 033-SEDGE	E144	22-Sep-2023	----	----	----		14-Nov-2023	----	53 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 033-WILL	E144	22-Sep-2023	----	----	----		14-Nov-2023	----	53 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 036-WILL	E144	22-Sep-2023	----	----	----		14-Nov-2023	----	53 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 039-WILL	E144	22-Sep-2023	----	----	----		14-Nov-2023	----	53 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 016-SEDGE	E144	21-Sep-2023	----	----	----		14-Nov-2023	----	54 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 016-WILL	E144	21-Sep-2023	----	----	----		14-Nov-2023	----	54 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 020-SEDGE	E144	21-Sep-2023	----	----	----		14-Nov-2023	----	54 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 : Moisture Content by Gravimetry										
LDPE bag 020-WILL	E144	21-Sep-2023	----	----	----		14-Nov-2023	----	54 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 025-SEDGE	E144	21-Sep-2023	----	----	----		14-Nov-2023	----	54 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 025-WILL	E144	21-Sep-2023	----	----	----		14-Nov-2023	----	54 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										
LDPE bag 028-SOIL	E510	25-Sep-2023	16-Oct-2023	28 days	21 days	✓	16-Oct-2023	28 days	21 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 034-SOIL	E510	25-Sep-2023	16-Oct-2023	28 days	21 days	✓	16-Oct-2023	28 days	21 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 045-SOIL	E510	25-Sep-2023	16-Oct-2023	28 days	21 days	✓	16-Oct-2023	28 days	21 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 046-SOIL	E510	25-Sep-2023	16-Oct-2023	28 days	21 days	✓	16-Oct-2023	28 days	21 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 041-SOIL	E510	24-Sep-2023	16-Oct-2023	28 days	22 days	✓	16-Oct-2023	28 days	22 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										
LDPE bag 043-SOIL	E510	24-Sep-2023	16-Oct-2023	28 days	22 days	✓	16-Oct-2023	28 days	22 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 044-SOIL	E510	24-Sep-2023	16-Oct-2023	28 days	22 days	✓	16-Oct-2023	28 days	22 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 042-SOIL	E510	24-Sep-2023	16-Oct-2023	28 days	22 days	✓	17-Oct-2023	28 days	23 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 035-SOIL	E510	23-Sep-2023	16-Oct-2023	28 days	23 days	✓	16-Oct-2023	28 days	23 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 037-SOIL	E510	23-Sep-2023	16-Oct-2023	28 days	23 days	✓	16-Oct-2023	28 days	23 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 038-SOIL	E510	23-Sep-2023	16-Oct-2023	28 days	23 days	✓	16-Oct-2023	28 days	23 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 011-SOIL	E510	22-Sep-2023	16-Oct-2023	28 days	24 days	✓	16-Oct-2023	28 days	24 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 012-SOIL	E510	22-Sep-2023	16-Oct-2023	28 days	24 days	✓	16-Oct-2023	28 days	24 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 033-SOIL	E510	22-Sep-2023	16-Oct-2023	28 days	24 days	✓	16-Oct-2023	28 days	24 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										
LDPE bag 036-SOIL	E510	22-Sep-2023	16-Oct-2023	28 days	24 days	✓	16-Oct-2023	28 days	24 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 039-SOIL	E510	22-Sep-2023	16-Oct-2023	28 days	24 days	✓	16-Oct-2023	28 days	24 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 016-SOIL	E510	21-Sep-2023	16-Oct-2023	28 days	25 days	✓	16-Oct-2023	28 days	25 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 020-SOIL	E510	21-Sep-2023	16-Oct-2023	28 days	25 days	✓	16-Oct-2023	28 days	25 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag DUP-SOIL	E510	21-Sep-2023	16-Oct-2023	28 days	25 days	✓	16-Oct-2023	28 days	25 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag 025-SOIL	E510	21-Sep-2023	16-Oct-2023	28 days	25 days	✓	17-Oct-2023	28 days	26 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 028-SOIL	E440	25-Sep-2023	16-Oct-2023	180 days	21 days	✓	16-Oct-2023	180 days	21 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 034-SOIL	E440	25-Sep-2023	16-Oct-2023	180 days	21 days	✓	16-Oct-2023	180 days	21 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 045-SOIL	E440	25-Sep-2023	16-Oct-2023	180 days	21 days	✓	16-Oct-2023	180 days	21 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										
LDPE bag 046-SOIL	E440	25-Sep-2023	16-Oct-2023	180 days	21 days	✓	16-Oct-2023	180 days	21 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 041-SOIL	E440	24-Sep-2023	16-Oct-2023	180 days	22 days	✓	16-Oct-2023	180 days	22 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 043-SOIL	E440	24-Sep-2023	16-Oct-2023	180 days	22 days	✓	16-Oct-2023	180 days	22 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 044-SOIL	E440	24-Sep-2023	16-Oct-2023	180 days	22 days	✓	16-Oct-2023	180 days	22 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 042-SOIL	E440	24-Sep-2023	16-Oct-2023	180 days	22 days	✓	17-Oct-2023	180 days	23 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 035-SOIL	E440	23-Sep-2023	16-Oct-2023	180 days	23 days	✓	16-Oct-2023	180 days	23 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 037-SOIL	E440	23-Sep-2023	16-Oct-2023	180 days	23 days	✓	16-Oct-2023	180 days	23 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 038-SOIL	E440	23-Sep-2023	16-Oct-2023	180 days	23 days	✓	16-Oct-2023	180 days	23 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 011-SOIL	E440	22-Sep-2023	16-Oct-2023	180 days	24 days	✓	16-Oct-2023	180 days	24 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										
LDPE bag 012-SOIL	E440	22-Sep-2023	16-Oct-2023	180 days	24 days	✓	16-Oct-2023	180 days	24 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 033-SOIL	E440	22-Sep-2023	16-Oct-2023	180 days	24 days	✓	16-Oct-2023	180 days	24 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 036-SOIL	E440	22-Sep-2023	16-Oct-2023	180 days	24 days	✓	16-Oct-2023	180 days	24 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 039-SOIL	E440	22-Sep-2023	16-Oct-2023	180 days	24 days	✓	16-Oct-2023	180 days	24 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 016-SOIL	E440	21-Sep-2023	16-Oct-2023	180 days	25 days	✓	16-Oct-2023	180 days	25 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 020-SOIL	E440	21-Sep-2023	16-Oct-2023	180 days	25 days	✓	16-Oct-2023	180 days	25 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag DUP-SOIL	E440	21-Sep-2023	16-Oct-2023	180 days	25 days	✓	16-Oct-2023	180 days	25 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag 025-SOIL	E440	21-Sep-2023	16-Oct-2023	180 days	25 days	✓	17-Oct-2023	180 days	26 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 011-SOIL	E351	22-Sep-2023	14-Oct-2023	----	----		14-Oct-2023	0 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*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 012-SOIL	E351	22-Sep-2023	14-Oct-2023	----	----		14-Oct-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 016-SOIL	E351	21-Sep-2023	14-Oct-2023	----	----		14-Oct-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 020-SOIL	E351	21-Sep-2023	14-Oct-2023	----	----		14-Oct-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 025-SOIL	E351	21-Sep-2023	14-Oct-2023	----	----		14-Oct-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 028-SOIL	E351	25-Sep-2023	14-Oct-2023	----	----		14-Oct-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 033-SOIL	E351	22-Sep-2023	14-Oct-2023	----	----		14-Oct-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 034-SOIL	E351	25-Sep-2023	14-Oct-2023	----	----		14-Oct-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 035-SOIL	E351	23-Sep-2023	14-Oct-2023	----	----		14-Oct-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 036-SOIL	E351	22-Sep-2023	14-Oct-2023	----	----		14-Oct-2023	0 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*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 037-SOIL	E351	23-Sep-2023	14-Oct-2023	----	----		14-Oct-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 038-SOIL	E351	23-Sep-2023	14-Oct-2023	----	----		14-Oct-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 039-SOIL	E351	22-Sep-2023	14-Oct-2023	----	----		14-Oct-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 041-SOIL	E351	24-Sep-2023	14-Oct-2023	----	----		14-Oct-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 042-SOIL	E351	24-Sep-2023	14-Oct-2023	----	----		14-Oct-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 043-SOIL	E351	24-Sep-2023	14-Oct-2023	----	----		14-Oct-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 044-SOIL	E351	24-Sep-2023	14-Oct-2023	----	----		14-Oct-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 045-SOIL	E351	25-Sep-2023	14-Oct-2023	----	----		14-Oct-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag 046-SOIL	E351	25-Sep-2023	14-Oct-2023	----	----		14-Oct-2023	0 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
Organic / Inorganic Carbon : Total Carbon by Combustion										
LDPE bag DUP-SOIL	E351	21-Sep-2023	14-Oct-2023	----	----		14-Oct-2023	0 days	0 days	✓
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 028-SOIL	E354	25-Sep-2023	----	----	----		16-Oct-2023	----	21 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 034-SOIL	E354	25-Sep-2023	----	----	----		16-Oct-2023	----	21 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 045-SOIL	E354	25-Sep-2023	----	----	----		16-Oct-2023	----	21 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 046-SOIL	E354	25-Sep-2023	----	----	----		16-Oct-2023	----	21 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 041-SOIL	E354	24-Sep-2023	----	----	----		16-Oct-2023	----	22 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 042-SOIL	E354	24-Sep-2023	----	----	----		16-Oct-2023	----	22 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 043-SOIL	E354	24-Sep-2023	----	----	----		16-Oct-2023	----	22 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 044-SOIL	E354	24-Sep-2023	----	----	----		16-Oct-2023	----	22 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
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 035-SOIL	E354	23-Sep-2023	----	----	----		16-Oct-2023	----	23 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 037-SOIL	E354	23-Sep-2023	----	----	----		16-Oct-2023	----	23 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 038-SOIL	E354	23-Sep-2023	----	----	----		16-Oct-2023	----	23 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 011-SOIL	E354	22-Sep-2023	----	----	----		16-Oct-2023	----	24 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 012-SOIL	E354	22-Sep-2023	----	----	----		16-Oct-2023	----	24 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 033-SOIL	E354	22-Sep-2023	----	----	----		16-Oct-2023	----	24 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 036-SOIL	E354	22-Sep-2023	----	----	----		16-Oct-2023	----	24 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 039-SOIL	E354	22-Sep-2023	----	----	----		16-Oct-2023	----	24 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 016-SOIL	E354	21-Sep-2023	----	----	----		16-Oct-2023	----	25 days	

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			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 020-SOIL	E354	21-Sep-2023	----	----	----		16-Oct-2023	----	25 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag 025-SOIL	E354	21-Sep-2023	----	----	----		16-Oct-2023	----	25 days	
Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve										
LDPE bag DUP-SOIL	E354	21-Sep-2023	----	----	----		16-Oct-2023	----	25 days	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 028-SOIL	E108	25-Sep-2023	13-Oct-2023	30 days	18 days	✓	13-Oct-2023	30 days	18 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 034-SOIL	E108	25-Sep-2023	13-Oct-2023	30 days	18 days	✓	13-Oct-2023	30 days	18 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 045-SOIL	E108	25-Sep-2023	13-Oct-2023	30 days	18 days	✓	13-Oct-2023	30 days	18 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 046-SOIL	E108	25-Sep-2023	13-Oct-2023	30 days	18 days	✓	13-Oct-2023	30 days	18 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 041-SOIL	E108	24-Sep-2023	13-Oct-2023	30 days	19 days	✓	13-Oct-2023	30 days	19 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 042-SOIL	E108	24-Sep-2023	13-Oct-2023	30 days	19 days	✓	13-Oct-2023	30 days	19 days	✓

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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)										
LDPE bag 043-SOIL	E108	24-Sep-2023	13-Oct-2023	30 days	19 days	✓	13-Oct-2023	30 days	19 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 044-SOIL	E108	24-Sep-2023	13-Oct-2023	30 days	19 days	✓	13-Oct-2023	30 days	19 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 035-SOIL	E108	23-Sep-2023	13-Oct-2023	30 days	20 days	✓	13-Oct-2023	30 days	20 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 037-SOIL	E108	23-Sep-2023	13-Oct-2023	30 days	20 days	✓	13-Oct-2023	30 days	20 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 038-SOIL	E108	23-Sep-2023	13-Oct-2023	30 days	20 days	✓	13-Oct-2023	30 days	20 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 011-SOIL	E108	22-Sep-2023	13-Oct-2023	30 days	21 days	✓	13-Oct-2023	30 days	21 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 012-SOIL	E108	22-Sep-2023	13-Oct-2023	30 days	21 days	✓	13-Oct-2023	30 days	21 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 033-SOIL	E108	22-Sep-2023	13-Oct-2023	30 days	21 days	✓	13-Oct-2023	30 days	21 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 036-SOIL	E108	22-Sep-2023	13-Oct-2023	30 days	21 days	✓	13-Oct-2023	30 days	21 days	✓

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			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)										
LDPE bag 039-SOIL	E108	22-Sep-2023	13-Oct-2023	30 days	21 days	✓	13-Oct-2023	30 days	21 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 016-SOIL	E108	21-Sep-2023	13-Oct-2023	30 days	22 days	✓	13-Oct-2023	30 days	22 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 020-SOIL	E108	21-Sep-2023	13-Oct-2023	30 days	22 days	✓	13-Oct-2023	30 days	22 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag 025-SOIL	E108	21-Sep-2023	13-Oct-2023	30 days	22 days	✓	13-Oct-2023	30 days	22 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag DUP-SOIL	E108	21-Sep-2023	13-Oct-2023	30 days	22 days	✓	13-Oct-2023	30 days	22 days	✓
Plant Available Nutrients : Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)										
LDPE bag 028-SOIL	E269.N+N	25-Sep-2023	13-Oct-2023	180 days	18 days	✓	13-Oct-2023	3 days	0 days	✓
Plant Available Nutrients : Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)										
LDPE bag 034-SOIL	E269.N+N	25-Sep-2023	13-Oct-2023	180 days	18 days	✓	13-Oct-2023	3 days	0 days	✓
Plant Available Nutrients : Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)										
LDPE bag 045-SOIL	E269.N+N	25-Sep-2023	13-Oct-2023	180 days	18 days	✓	13-Oct-2023	3 days	0 days	✓
Plant Available Nutrients : Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)										
LDPE bag 046-SOIL	E269.N+N	25-Sep-2023	13-Oct-2023	180 days	18 days	✓	13-Oct-2023	3 days	0 days	✓

Matrix: **Soil/Solid**

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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 Available Nutrients : Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)										
LDPE bag 041-SOIL	E269.N+N	24-Sep-2023	13-Oct-2023	180 days	19 days	✓	13-Oct-2023	3 days	0 days	✓
Plant Available Nutrients : Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)										
LDPE bag 042-SOIL	E269.N+N	24-Sep-2023	13-Oct-2023	180 days	19 days	✓	13-Oct-2023	3 days	0 days	✓
Plant Available Nutrients : Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)										
LDPE bag 043-SOIL	E269.N+N	24-Sep-2023	13-Oct-2023	180 days	19 days	✓	13-Oct-2023	3 days	0 days	✓
Plant Available Nutrients : Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)										
LDPE bag 044-SOIL	E269.N+N	24-Sep-2023	13-Oct-2023	180 days	19 days	✓	13-Oct-2023	3 days	0 days	✓
Plant Available Nutrients : Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)										
LDPE bag 035-SOIL	E269.N+N	23-Sep-2023	13-Oct-2023	180 days	20 days	✓	13-Oct-2023	3 days	0 days	✓
Plant Available Nutrients : Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)										
LDPE bag 037-SOIL	E269.N+N	23-Sep-2023	13-Oct-2023	180 days	20 days	✓	13-Oct-2023	3 days	0 days	✓
Plant Available Nutrients : Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)										
LDPE bag 038-SOIL	E269.N+N	23-Sep-2023	13-Oct-2023	180 days	20 days	✓	13-Oct-2023	3 days	0 days	✓
Plant Available Nutrients : Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)										
LDPE bag 011-SOIL	E269.N+N	22-Sep-2023	13-Oct-2023	180 days	21 days	✓	13-Oct-2023	3 days	0 days	✓
Plant Available Nutrients : Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)										
LDPE bag 012-SOIL	E269.N+N	22-Sep-2023	13-Oct-2023	180 days	21 days	✓	13-Oct-2023	3 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
Plant Available Nutrients : Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)										
LDPE bag 033-SOIL	E269.N+N	22-Sep-2023	13-Oct-2023	180 days	21 days	✓	13-Oct-2023	3 days	0 days	✓
Plant Available Nutrients : Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)										
LDPE bag 036-SOIL	E269.N+N	22-Sep-2023	13-Oct-2023	180 days	21 days	✓	13-Oct-2023	3 days	0 days	✓
Plant Available Nutrients : Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)										
LDPE bag 039-SOIL	E269.N+N	22-Sep-2023	13-Oct-2023	180 days	21 days	✓	13-Oct-2023	3 days	0 days	✓
Plant Available Nutrients : Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)										
LDPE bag 016-SOIL	E269.N+N	21-Sep-2023	13-Oct-2023	180 days	22 days	✓	13-Oct-2023	3 days	0 days	✓
Plant Available Nutrients : Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)										
LDPE bag 020-SOIL	E269.N+N	21-Sep-2023	13-Oct-2023	180 days	22 days	✓	13-Oct-2023	3 days	0 days	✓
Plant Available Nutrients : Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)										
LDPE bag 025-SOIL	E269.N+N	21-Sep-2023	13-Oct-2023	180 days	22 days	✓	13-Oct-2023	3 days	0 days	✓
Plant Available Nutrients : Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)										
LDPE bag DUP-SOIL	E269.N+N	21-Sep-2023	13-Oct-2023	180 days	22 days	✓	13-Oct-2023	3 days	0 days	✓
Plant Available Nutrients : Available Phosphorus by FIALab (Modified Kelowna)										
LDPE bag 011-SOIL	E384	22-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Phosphorus by FIALab (Modified Kelowna)										
LDPE bag 012-SOIL	E384	22-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 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
Plant Available Nutrients : Available Phosphorus by FIALab (Modified Kelowna)										
LDPE bag 016-SOIL	E384	21-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Phosphorus by FIALab (Modified Kelowna)										
LDPE bag 020-SOIL	E384	21-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Phosphorus by FIALab (Modified Kelowna)										
LDPE bag 028-SOIL	E384	25-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Phosphorus by FIALab (Modified Kelowna)										
LDPE bag 033-SOIL	E384	22-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Phosphorus by FIALab (Modified Kelowna)										
LDPE bag 034-SOIL	E384	25-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Phosphorus by FIALab (Modified Kelowna)										
LDPE bag 035-SOIL	E384	23-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Phosphorus by FIALab (Modified Kelowna)										
LDPE bag 036-SOIL	E384	22-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Phosphorus by FIALab (Modified Kelowna)										
LDPE bag 037-SOIL	E384	23-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Phosphorus by FIALab (Modified Kelowna)										
LDPE bag 038-SOIL	E384	23-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 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
Plant Available Nutrients : Available Phosphorus by FIALab (Modified Kelowna)										
LDPE bag 041-SOIL	E384	24-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Phosphorus by FIALab (Modified Kelowna)										
LDPE bag 043-SOIL	E384	24-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Phosphorus by FIALab (Modified Kelowna)										
LDPE bag 044-SOIL	E384	24-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Phosphorus by FIALab (Modified Kelowna)										
LDPE bag 045-SOIL	E384	25-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Phosphorus by FIALab (Modified Kelowna)										
LDPE bag 046-SOIL	E384	25-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Phosphorus by FIALab (Modified Kelowna)										
LDPE bag DUP-SOIL	E384	21-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Phosphorus by FIALab (Modified Kelowna)										
LDPE bag 025-SOIL	E384	21-Sep-2023	13-Oct-2023	----	----		14-Oct-2023	1 days	1 days	✓
Plant Available Nutrients : Available Phosphorus by FIALab (Modified Kelowna)										
LDPE bag 039-SOIL	E384	22-Sep-2023	13-Oct-2023	----	----		14-Oct-2023	1 days	1 days	✓
Plant Available Nutrients : Available Phosphorus by FIALab (Modified Kelowna)										
LDPE bag 042-SOIL	E384	24-Sep-2023	13-Oct-2023	----	----		14-Oct-2023	1 days	1 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
Plant Available Nutrients : Available Potassium by flame photometry (Modified Kelowna)										
LDPE bag 011-SOIL	E390	22-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Potassium by flame photometry (Modified Kelowna)										
LDPE bag 012-SOIL	E390	22-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Potassium by flame photometry (Modified Kelowna)										
LDPE bag 016-SOIL	E390	21-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Potassium by flame photometry (Modified Kelowna)										
LDPE bag 020-SOIL	E390	21-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Potassium by flame photometry (Modified Kelowna)										
LDPE bag 025-SOIL	E390	21-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Potassium by flame photometry (Modified Kelowna)										
LDPE bag 028-SOIL	E390	25-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Potassium by flame photometry (Modified Kelowna)										
LDPE bag 033-SOIL	E390	22-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Potassium by flame photometry (Modified Kelowna)										
LDPE bag 034-SOIL	E390	25-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Potassium by flame photometry (Modified Kelowna)										
LDPE bag 035-SOIL	E390	23-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 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
Plant Available Nutrients : Available Potassium by flame photometry (Modified Kelowna)										
LDPE bag 036-SOIL	E390	22-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Potassium by flame photometry (Modified Kelowna)										
LDPE bag 037-SOIL	E390	23-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Potassium by flame photometry (Modified Kelowna)										
LDPE bag 038-SOIL	E390	23-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Potassium by flame photometry (Modified Kelowna)										
LDPE bag 039-SOIL	E390	22-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Potassium by flame photometry (Modified Kelowna)										
LDPE bag 041-SOIL	E390	24-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Potassium by flame photometry (Modified Kelowna)										
LDPE bag 042-SOIL	E390	24-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Potassium by flame photometry (Modified Kelowna)										
LDPE bag 043-SOIL	E390	24-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Potassium by flame photometry (Modified Kelowna)										
LDPE bag 044-SOIL	E390	24-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Potassium by flame photometry (Modified Kelowna)										
LDPE bag 045-SOIL	E390	25-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 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
Plant Available Nutrients : Available Potassium by flame photometry (Modified Kelowna)										
LDPE bag 046-SOIL	E390	25-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Potassium by flame photometry (Modified Kelowna)										
LDPE bag DUP-SOIL	E390	21-Sep-2023	13-Oct-2023	----	----		13-Oct-2023	0 days	0 days	✓
Plant Available Nutrients : Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)										
LDPE bag 028-SOIL	E497.SO4	25-Sep-2023	13-Oct-2023	180 days	18 days	✓	13-Oct-2023	28 days	0 days	✓
Plant Available Nutrients : Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)										
LDPE bag 034-SOIL	E497.SO4	25-Sep-2023	13-Oct-2023	180 days	18 days	✓	13-Oct-2023	28 days	0 days	✓
Plant Available Nutrients : Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)										
LDPE bag 045-SOIL	E497.SO4	25-Sep-2023	13-Oct-2023	180 days	18 days	✓	13-Oct-2023	28 days	0 days	✓
Plant Available Nutrients : Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)										
LDPE bag 046-SOIL	E497.SO4	25-Sep-2023	13-Oct-2023	180 days	18 days	✓	13-Oct-2023	28 days	0 days	✓
Plant Available Nutrients : Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)										
LDPE bag 041-SOIL	E497.SO4	24-Sep-2023	13-Oct-2023	180 days	19 days	✓	13-Oct-2023	28 days	0 days	✓
Plant Available Nutrients : Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)										
LDPE bag 042-SOIL	E497.SO4	24-Sep-2023	13-Oct-2023	180 days	19 days	✓	13-Oct-2023	28 days	0 days	✓
Plant Available Nutrients : Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)										
LDPE bag 043-SOIL	E497.SO4	24-Sep-2023	13-Oct-2023	180 days	19 days	✓	13-Oct-2023	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
Plant Available Nutrients : Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)										
LDPE bag 044-SOIL	E497.SO4	24-Sep-2023	13-Oct-2023	180 days	19 days	✓	13-Oct-2023	28 days	0 days	✓
Plant Available Nutrients : Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)										
LDPE bag 035-SOIL	E497.SO4	23-Sep-2023	13-Oct-2023	180 days	20 days	✓	13-Oct-2023	28 days	0 days	✓
Plant Available Nutrients : Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)										
LDPE bag 037-SOIL	E497.SO4	23-Sep-2023	13-Oct-2023	180 days	20 days	✓	13-Oct-2023	28 days	0 days	✓
Plant Available Nutrients : Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)										
LDPE bag 038-SOIL	E497.SO4	23-Sep-2023	13-Oct-2023	180 days	20 days	✓	13-Oct-2023	28 days	0 days	✓
Plant Available Nutrients : Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)										
LDPE bag 011-SOIL	E497.SO4	22-Sep-2023	13-Oct-2023	180 days	21 days	✓	13-Oct-2023	28 days	0 days	✓
Plant Available Nutrients : Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)										
LDPE bag 012-SOIL	E497.SO4	22-Sep-2023	13-Oct-2023	180 days	21 days	✓	13-Oct-2023	28 days	0 days	✓
Plant Available Nutrients : Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)										
LDPE bag 033-SOIL	E497.SO4	22-Sep-2023	13-Oct-2023	180 days	21 days	✓	13-Oct-2023	28 days	0 days	✓
Plant Available Nutrients : Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)										
LDPE bag 036-SOIL	E497.SO4	22-Sep-2023	13-Oct-2023	180 days	21 days	✓	13-Oct-2023	28 days	0 days	✓
Plant Available Nutrients : Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)										
LDPE bag 039-SOIL	E497.SO4	22-Sep-2023	13-Oct-2023	180 days	21 days	✓	13-Oct-2023	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*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Plant Available Nutrients : Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)										
LDPE bag 016-SOIL	E497.SO4	21-Sep-2023	13-Oct-2023	180 days	22 days	✓	13-Oct-2023	28 days	0 days	✓
Plant Available Nutrients : Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)										
LDPE bag 020-SOIL	E497.SO4	21-Sep-2023	13-Oct-2023	180 days	22 days	✓	13-Oct-2023	28 days	0 days	✓
Plant Available Nutrients : Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)										
LDPE bag 025-SOIL	E497.SO4	21-Sep-2023	13-Oct-2023	180 days	22 days	✓	13-Oct-2023	28 days	0 days	✓
Plant Available Nutrients : Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)										
LDPE bag DUP-SOIL	E497.SO4	21-Sep-2023	13-Oct-2023	180 days	22 days	✓	13-Oct-2023	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	E144	1236990	2	38	5.2	5.0	✓
Laboratory Control Samples (LCS)							
Moisture Content by Gravimetry	E144	1236990	2	38	5.2	5.0	✓
Method Blanks (MB)							
Moisture Content by Gravimetry	E144	1236990	2	38	5.2	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)							
Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)	E269.N+N	1182323	1	20	5.0	5.0	✓
Available Phosphorus by FIALab (Modified Kelowna)	E384	1182298	2	40	5.0	5.0	✓
Available Potassium by flame photometry (Modified Kelowna)	E390	1182299	2	40	5.0	5.0	✓
Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)	E497.SO4	1182322	1	20	5.0	5.0	✓
Mercury in Soil/Solid by CVAAS	E510	1186777	2	39	5.1	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	1186778	2	40	5.0	5.0	✓
pH by Meter (1:2 Soil:Water Extraction)	E108	1182317	1	20	5.0	5.0	✓
Total Carbon by Combustion	E351	1179919	1	20	5.0	5.0	✓
Total Inorganic Carbon by Acetic Acid pH Standard Curve	E354	1187053	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)	E269.N+N	1182323	2	20	10.0	10.0	✓
Available Phosphorus by FIALab (Modified Kelowna)	E384	1182298	4	40	10.0	10.0	✓
Available Potassium by flame photometry (Modified Kelowna)	E390	1182299	4	40	10.0	10.0	✓
Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)	E497.SO4	1182322	2	20	10.0	10.0	✓
Mercury in Soil/Solid by CVAAS	E510	1186777	4	39	10.2	10.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	1186778	4	40	10.0	10.0	✓
pH by Meter (1:2 Soil:Water Extraction)	E108	1182317	2	20	10.0	10.0	✓
Total Carbon by Combustion	E351	1179919	2	20	10.0	10.0	✓
Total Inorganic Carbon by Acetic Acid pH Standard Curve	E354	1187053	2	20	10.0	10.0	✓
Method Blanks (MB)							
Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)	E269.N+N	1182323	1	20	5.0	5.0	✓
Available Phosphorus by FIALab (Modified Kelowna)	E384	1182298	2	40	5.0	5.0	✓
Available Potassium by flame photometry (Modified Kelowna)	E390	1182299	2	40	5.0	5.0	✓
Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)	E497.SO4	1182322	1	20	5.0	5.0	✓
Mercury in Soil/Solid by CVAAS	E510	1186777	2	39	5.1	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	1186778	2	40	5.0	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*
Method Blanks (MB) - Continued							
Total Carbon by Combustion	E351	1179919	1	20	5.0	5.0	✓
Total Inorganic Carbon by Acetic Acid pH Standard Curve	E354	1187053	1	20	5.0	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
Moisture Content by Gravimetry	E144 ALS Environmental - Vancouver	Biota	Puget Sound Water Quality Authority/CCME PHC in Soil - Tier 1	Moisture is measured gravimetrically by drying the sample at 105°C. 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, Routine)	E440 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.
Silver in Biota by CRC ICPMS (DRY units, Routine)	E440.Ag 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.
Titanium in Biota by CRC ICPMS (DRY units, Routine)	E440.Ti 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.
Mercury in Biota by CVAAS (DRY units, Routine)	E510 ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with HNO3, HCl, and H2O2. Analysis is by CVAAS.
pH by Meter (1:2 Soil:Water Extraction)	E108 ALS Environmental - Saskatoon	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.
Available Nitrate and Nitrite by Colourimetry (0.01M Calcium Chloride Ext.)	E269.N+N ALS Environmental - Saskatoon	Soil/Solid	Alberta Agriculture/APHA 4500-NO3 I (mod)	Plant available nitrate and nitrite are analyzed by colourimetry using a flow injection analyzer on a soil sample extract that has been extracted using 0.01M Calcium Chloride, then shaken well and filtered prior to analysis.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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.
Available Phosphorus by FIALab (Modified Kelowna)	E384 ALS Environmental - Saskatoon	Soil/Solid	Comm. Soil Sci. Plant Anal, 25 (5&6)	Plant available phosphorus is extracted from air dried soil using a fixed ratio Modified Kelowna extraction. Phosphorus is determined by colorimetry using an flow injection analyzer.
Available Potassium by flame photometry (Modified Kelowna)	E390 ALS Environmental - Saskatoon	Soil/Solid	Comm. Soil Sci. Plant Anal, 25 (5&6)	Plant available potassium is extracted from soil using modified Kelowna solution. Potassium is determined by flame emission at 770 nm.
Metals in Soil/Solid by CRC ICPMS	E440 ALS Environmental - Saskatoon	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.
Available Sulfate by ICPMS (0.01M Calcium Chloride Ext.)	E497.SO4 ALS Environmental - Saskatoon	Soil/Solid	Alberta Agriculture	Plant available sulfate is determined by ICPMS. Soil is extracted using a 0.01M calcium chloride solution. This extraction may also produce organic sulfur in the extracts when organic soils are analyzed.
Mercury in Soil/Solid by CVAAS	E510 ALS Environmental - Saskatoon	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

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Metals and Mercury Biota Digestion	EP440 ALS Environmental - Vancouver	Biota	EPA 200.3	This method uses a heated strong acid digestion with HNO3, HCl, and H2O2 and is intended to provide a conservative estimate of bio-available metals.
Leach 1:2 Soil:Water for pH/EC	EP108 ALS Environmental - Saskatoon	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.
Fixed ratio 0.01M Calcium Chloride extraction for plant available nutrients	EP269 ALS Environmental - Saskatoon	Soil/Solid	Alberta Agriculture	Plant available nutrients (N&S) extracted using 0.01M calcium chloride, then shaken well and filtered prior to analysis.
Modified Kelowna Extraction for soil	EP384 ALS Environmental - Saskatoon	Soil/Solid	Comm. Soil Sci. Plant Anal, 25 (5&6)	Plant available phosphorus and potassium are extracted from the soil using fixed ratio Modified Kelowna solution.
Digestion for Metals and Mercury	EP440 ALS Environmental - Saskatoon	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 <38°C	EPP441 ALS Environmental - Saskatoon	Soil/Solid	Soil Sampling and Methods of Analysis, Carter 2008	After removal of coarse fragments a portion of homogenized sample is set in a tray and dried at less than 38°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.
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.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **VA23C4042**	Page	: 1 of 14
Amendment	: **(Partial Results)**		
Client	: ERM Consultants Canada Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Jessica Lowey	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: 0700679-02-003 (Blackwater)	Date Samples Received	: 29-Sep-2023 11:00
PO	: 12970	Date Analysis Commenced	: 11-Oct-2023
C-O-C number	: ----	Issue Date	: 22-Nov-2023 17:41
Sampler	: ---- ----		
Site	: ----		
Quote number	: ERM/BW Gold SW (VA22-BWGL100-002/Q56205)		
No. of samples received	: 58		
No. of samples analysed	: 58		

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*
Arshdeep Kaur	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
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Colby Bingham	Laboratory Supervisor	Saskatoon Metals, Saskatoon, Saskatchewan
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Kimberly Hanson	Laboratory Analyst	Saskatoon Metals, Saskatoon, Saskatchewan
Milad Khani	Laboratory Analyst	Saskatoon Metals, Saskatoon, Saskatchewan
Milad Khani	Laboratory Analyst	Saskatoon Sask Soils, Saskatoon, Saskatchewan

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: 1236990)											
VA23C4042-041	035-WILL	Moisture	----	E144	0.50	%	61.8	63.8	3.29%	20%	----
Physical Tests (QC Lot: 1236991)											
VA23C4042-021	020-SEDGE	Moisture	----	E144	0.50	%	60.0	62.4	3.99%	20%	----

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: 1182317)											
VA23C4042-018	043-SOIL	pH (1:2 soil:water)	----	E108	0.10	pH units	5.97	5.93	0.672%	10%	----
Organic / Inorganic Carbon (QC Lot: 1179919)											
VA23C4042-004	012-SOIL	Carbon, total [TC]	----	E351	0.050	%	0.500	0.519	3.76%	20%	----
Organic / Inorganic Carbon (QC Lot: 1187053)											
VA23C4042-001	016-SOIL	Carbon, inorganic [IC]	----	E354	0.050	%	0.051	<0.050	0.001	Diff <2x LOR	----
Plant Available Nutrients (QC Lot: 1182298)											
SK2305556-001	Anonymous	Phosphate, available (as P)	14265-44-2	E384	2.0	mg/kg	18.8	17.1	9.14%	30%	----
Plant Available Nutrients (QC Lot: 1182299)											
SK2305556-001	Anonymous	Potassium, available	7440-09-7	E390	20	mg/kg	208	223	7.20%	30%	----
Plant Available Nutrients (QC Lot: 1182319)											
RG2301673-002	Anonymous	Phosphate, available (as P)	14265-44-2	E384	39.9	mg/kg	670	687	2.51%	30%	----
Plant Available Nutrients (QC Lot: 1182320)											
RG2301673-002	Anonymous	Potassium, available	7440-09-7	E390	399	mg/kg	4340	4070	6.51%	30%	----
Plant Available Nutrients (QC Lot: 1182322)											
VA23C4042-005	046-SOIL	Sulfate, available (as S)	14808-79-8	E497.SO4	6.0	mg/kg	124	123	1.06%	30%	----
Plant Available Nutrients (QC Lot: 1182323)											
VA23C4042-005	046-SOIL	Nitrate + Nitrite, available (as N)	----	E269.N+N	1.0	mg/kg	3.8	3.6	0.2	Diff <2x LOR	----
Metals (QC Lot: 1186777)											
RG2301713-001	Anonymous	Mercury	7439-97-6	E510	0.0050	mg/kg	0.0394	0.0388	1.52%	40%	----
Metals (QC Lot: 1186778)											
RG2301713-001	Anonymous	Aluminum	7429-90-5	E440	50	mg/kg	10600	11100	4.82%	40%	----
		Antimony	7440-36-0	E440	0.10	mg/kg	0.71	0.86	19.3%	30%	----
		Arsenic	7440-38-2	E440	0.10	mg/kg	10.5	11.0	4.88%	30%	----

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: 1186778) - continued											
RG2301713-001	Anonymous	Barium	7440-39-3	E440	0.50	mg/kg	243	254	4.48%	40%	----
		Beryllium	7440-41-7	E440	0.10	mg/kg	0.64	0.65	0.01	Diff <2x LOR	----
		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	15.0	14.9	0.03	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.020	mg/kg	0.327	0.330	0.908%	30%	----
		Calcium	7440-70-2	E440	50	mg/kg	31300	31800	1.68%	30%	----
		Chromium	7440-47-3	E440	0.50	mg/kg	25.2	24.1	4.48%	30%	----
		Cobalt	7440-48-4	E440	0.10	mg/kg	8.65	8.74	0.953%	30%	----
		Copper	7440-50-8	E440	0.50	mg/kg	23.2	23.4	0.993%	30%	----
		Iron	7439-89-6	E440	50	mg/kg	19500	19900	1.73%	30%	----
		Lead	7439-92-1	E440	0.50	mg/kg	9.92	10.2	3.15%	40%	----
		Lithium	7439-93-2	E440	2.0	mg/kg	16.4	16.5	0.976%	30%	----
		Magnesium	7439-95-4	E440	20	mg/kg	12800	14000	8.57%	30%	----
		Manganese	7439-96-5	E440	1.0	mg/kg	426	400	6.22%	30%	----
		Molybdenum	7439-98-7	E440	0.10	mg/kg	1.61	1.29	22.0%	40%	----
		Nickel	7440-02-0	E440	0.50	mg/kg	26.0	24.5	6.19%	30%	----
		Phosphorus	7723-14-0	E440	50	mg/kg	615	631	2.60%	30%	----
		Potassium	7440-09-7	E440	100	mg/kg	2090	2210	5.69%	40%	----
		Selenium	7782-49-2	E440	0.20	mg/kg	0.49	0.44	0.05	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	286	281	1.74%	40%	----
		Strontium	7440-24-6	E440	0.50	mg/kg	71.8	74.5	3.71%	40%	----
		Sulfur	7704-34-9	E440	1000	mg/kg	2100	1800	300	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.050	mg/kg	0.222	0.232	0.010	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	113	122	7.12%	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	1.56	1.66	5.97%	30%	----
		Vanadium	7440-62-2	E440	0.20	mg/kg	32.0	33.6	4.92%	30%	----
		Zinc	7440-66-6	E440	2.0	mg/kg	102	95.1	6.75%	30%	----
		Zirconium	7440-67-7	E440	1.0	mg/kg	8.1	8.5	5.18%	30%	----
Metals (QC Lot: 1186782)											
VA23C4042-019	025-SOIL	Mercury	7439-97-6	E510	0.0050	mg/kg	0.0206	0.0183	0.0023	Diff <2x LOR	----
Metals (QC Lot: 1186783)											

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: 1186783) - continued											
VA23C4042-019	025-SOIL	Aluminum	7429-90-5	E440	50	mg/kg	14800	14900	1.07%	40%	----
		Antimony	7440-36-0	E440	0.10	mg/kg	0.32	0.33	0.01	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.10	mg/kg	4.91	5.49	11.1%	30%	----
		Barium	7440-39-3	E440	0.50	mg/kg	72.5	69.8	3.80%	40%	----
		Beryllium	7440-41-7	E440	0.10	mg/kg	0.34	0.36	0.02	Diff <2x LOR	----
		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	0.149	0.158	5.83%	30%	----
		Calcium	7440-70-2	E440	50	mg/kg	3380	3160	6.75%	30%	----
		Chromium	7440-47-3	E440	0.50	mg/kg	17.5	18.7	6.94%	30%	----
		Cobalt	7440-48-4	E440	0.10	mg/kg	7.30	7.69	5.14%	30%	----
		Copper	7440-50-8	E440	0.50	mg/kg	13.2	13.3	1.23%	30%	----
		Iron	7439-89-6	E440	50	mg/kg	26700	28500	6.65%	30%	----
		Lead	7439-92-1	E440	0.50	mg/kg	4.89	4.97	1.61%	40%	----
		Lithium	7439-93-2	E440	2.0	mg/kg	9.2	8.7	0.4	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	20	mg/kg	5300	5180	2.32%	30%	----
		Manganese	7439-96-5	E440	1.0	mg/kg	479	476	0.552%	30%	----
		Molybdenum	7439-98-7	E440	0.10	mg/kg	0.54	0.72	29.2%	40%	----
		Nickel	7440-02-0	E440	0.50	mg/kg	13.7	13.9	1.60%	30%	----
		Phosphorus	7723-14-0	E440	50	mg/kg	1170	1190	1.38%	30%	----
		Potassium	7440-09-7	E440	100	mg/kg	760	720	5.64%	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	0.003	Diff <2x LOR	----
		Sodium	7440-23-5	E440	50	mg/kg	133	135	1	Diff <2x LOR	----
		Strontium	7440-24-6	E440	0.50	mg/kg	20.2	19.9	1.77%	40%	----
		Sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.050	mg/kg	0.059	0.056	0.003	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	738	783	5.94%	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	0.301	0.353	0.053	Diff <2x LOR	----
		Vanadium	7440-62-2	E440	0.20	mg/kg	65.6	68.0	3.59%	30%	----
		Zinc	7440-66-6	E440	2.0	mg/kg	81.4	82.5	1.37%	30%	----
		Zirconium	7440-67-7	E440	1.0	mg/kg	2.2	2.3	0.1	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: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1236990)						
Moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 1236991)						
Moisture	----	E144	0.5	%	<0.50	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Organic / Inorganic Carbon (QCLot: 1179919)						
Carbon, total [TC]	----	E351	0.05	%	<0.050	----
Organic / Inorganic Carbon (QCLot: 1187053)						
Carbon, inorganic [IC]	----	E354	0.05	%	<0.050	----
Plant Available Nutrients (QCLot: 1182298)						
Phosphate, available (as P)	14265-44-2	E384	2	mg/kg	<2.0	----
Plant Available Nutrients (QCLot: 1182299)						
Potassium, available	7440-09-7	E390	20	mg/kg	<20	----
Plant Available Nutrients (QCLot: 1182319)						
Phosphate, available (as P)	14265-44-2	E384	2	mg/kg	<2.0	----
Plant Available Nutrients (QCLot: 1182320)						
Potassium, available	7440-09-7	E390	20	mg/kg	<20	----
Plant Available Nutrients (QCLot: 1182322)						
Sulfate, available (as S)	14808-79-8	E497.SO4	3	mg/kg	<6.0	----
Plant Available Nutrients (QCLot: 1182323)						
Nitrate + Nitrite, available (as N)	----	E269.N+N	1	mg/kg	<1.0	----
Metals (QCLot: 1186777)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1186778)						
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	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1186778) - continued						
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	----
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	----
Metals (QCLot: 1186782)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1186783)						
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	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1186783) - continued						
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	----
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**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1236990)									
Moisture	----	E144	0.5	%	50 %	100.0	90.0	110	----
Physical Tests (QCLot: 1236991)									
Moisture	----	E144	0.5	%	50 %	99.8	90.0	110	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1182317)									
pH (1:2 soil:water)	----	E108	----	pH units	7 pH units	101	97.0	103	----
Organic / Inorganic Carbon (QCLot: 1179919)									
Carbon, total [TC]	----	E351	0.05	%	48 %	99.2	90.0	110	----
Organic / Inorganic Carbon (QCLot: 1187053)									
Carbon, inorganic [IC]	----	E354	0.05	%	0.5 %	96.0	90.0	110	----
Plant Available Nutrients (QCLot: 1182298)									
Phosphate, available (as P)	14265-44-2	E384	2	mg/kg	12.5 mg/kg	106	80.0	120	----
Plant Available Nutrients (QCLot: 1182299)									
Potassium, available	7440-09-7	E390	20	mg/kg	125 mg/kg	105	70.0	130	----
Plant Available Nutrients (QCLot: 1182319)									
Phosphate, available (as P)	14265-44-2	E384	2	mg/kg	12.5 mg/kg	105	80.0	120	----
Plant Available Nutrients (QCLot: 1182320)									
Potassium, available	7440-09-7	E390	20	mg/kg	125 mg/kg	100	70.0	130	----
Plant Available Nutrients (QCLot: 1182322)									
Sulfate, available (as S)	14808-79-8	E497.SO4	3	mg/kg	200 mg/kg	112	70.0	130	----
Plant Available Nutrients (QCLot: 1182323)									
Nitrate + Nitrite, available (as N)	----	E269.N+N	1	mg/kg	40 mg/kg	107	70.0	130	----
Metals (QCLot: 1186777)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	92.6	80.0	120	----
Metals (QCLot: 1186778)									
Aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	98.3	80.0	120	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1186778) - continued									
Antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	104	80.0	120	----
Arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	102	80.0	120	----
Barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	100	80.0	120	----
Beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	107	80.0	120	----
Bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	97.3	80.0	120	----
Boron	7440-42-8	E440	5	mg/kg	100 mg/kg	101	80.0	120	----
Cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	97.9	80.0	120	----
Calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	105	80.0	120	----
Chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	99.7	80.0	120	----
Cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	97.5	80.0	120	----
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	97.4	80.0	120	----
Iron	7439-89-6	E440	50	mg/kg	100 mg/kg	100	80.0	120	----
Lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	97.2	80.0	120	----
Lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	105	80.0	120	----
Magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	101	80.0	120	----
Manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	97.1	80.0	120	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	100	80.0	120	----
Nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	96.0	80.0	120	----
Phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	102	80.0	120	----
Potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	100	80.0	120	----
Selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	101	80.0	120	----
Silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	94.8	80.0	120	----
Sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	98.6	80.0	120	----
Strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	102	80.0	120	----
Sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	101	80.0	120	----
Thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	95.4	80.0	120	----
Tin	7440-31-5	E440	2	mg/kg	50 mg/kg	98.2	80.0	120	----
Titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	91.2	80.0	120	----
Tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	95.0	80.0	120	----
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	95.2	80.0	120	----
Vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	98.7	80.0	120	----
Zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	94.4	80.0	120	----
Zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	96.7	80.0	120	----
Metals (QCLot: 1186782)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	99.2	80.0	120	----
Metals (QCLot: 1186783)									

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1186783) - continued									
Aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	106	80.0	120	----
Antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	105	80.0	120	----
Arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	109	80.0	120	----
Barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	105	80.0	120	----
Beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	101	80.0	120	----
Bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	98.4	80.0	120	----
Boron	7440-42-8	E440	5	mg/kg	100 mg/kg	96.7	80.0	120	----
Cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	104	80.0	120	----
Calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	101	80.0	120	----
Chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	105	80.0	120	----
Cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	105	80.0	120	----
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	104	80.0	120	----
Iron	7439-89-6	E440	50	mg/kg	100 mg/kg	108	80.0	120	----
Lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	102	80.0	120	----
Lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	103	80.0	120	----
Magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	108	80.0	120	----
Manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	108	80.0	120	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	102	80.0	120	----
Nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	105	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	106	80.0	120	----
Selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	104	80.0	120	----
Silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	95.6	80.0	120	----
Sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	102	80.0	120	----
Strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	98.5	80.0	120	----
Sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	104	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	103	80.0	120	----
Titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	102	80.0	120	----
Tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	98.9	80.0	120	----
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	101	80.0	120	----
Vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	105	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	98.8	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
Physical Tests (QCLot: 1182317)									
	RM	pH (1:2 soil:water)	----	E108	8.13 pH units	100	96.0	104	----
Organic / Inorganic Carbon (QCLot: 1179919)									
	RM	Carbon, total [TC]	----	E351	1.4 %	98.2	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1187053)									
	RM	Carbon, inorganic [IC]	----	E354	0.383 %	96.8	80.0	120	----
Plant Available Nutrients (QCLot: 1182298)									
	RM	Phosphate, available (as P)	14265-44-2	E384	31.1 mg/kg	103	80.0	120	----
Plant Available Nutrients (QCLot: 1182299)									
	RM	Potassium, available	7440-09-7	E390	397 mg/kg	103	70.0	130	----
Plant Available Nutrients (QCLot: 1182319)									
	RM	Phosphate, available (as P)	14265-44-2	E384	31.1 mg/kg	103	80.0	120	----
Plant Available Nutrients (QCLot: 1182320)									
	RM	Potassium, available	7440-09-7	E390	397 mg/kg	97.3	70.0	130	----
Plant Available Nutrients (QCLot: 1182322)									
	RM	Sulfate, available (as S)	14808-79-8	E497.SO4	459 mg/kg	106	70.0	130	----
Plant Available Nutrients (QCLot: 1182323)									
	RM	Nitrate + Nitrite, available (as N)	----	E269.N+N	11.3 mg/kg	103	70.0	130	----
Metals (QCLot: 1186777)									
	RM	Mercury	7439-97-6	E510	0.059 mg/kg	93.4	70.0	130	----
Metals (QCLot: 1186778)									
	RM	Aluminum	7429-90-5	E440	9817 mg/kg	96.4	70.0	130	----
	RM	Antimony	7440-36-0	E440	3.99 mg/kg	95.6	70.0	130	----
	RM	Arsenic	7440-38-2	E440	3.73 mg/kg	100	70.0	130	----
	RM	Barium	7440-39-3	E440	105 mg/kg	101	70.0	130	----
	RM	Beryllium	7440-41-7	E440	0.349 mg/kg	102	70.0	130	----
	RM	Boron	7440-42-8	E440	8.5 mg/kg	108	40.0	160	----
	RM	Cadmium	7440-43-9	E440	0.91 mg/kg	109	70.0	130	----
	RM	Calcium	7440-70-2	E440	31082 mg/kg	99.1	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: 1186778) - continued									
	RM	Chromium	7440-47-3	E440	101 mg/kg	96.0	70.0	130	----
	RM	Cobalt	7440-48-4	E440	6.9 mg/kg	99.0	70.0	130	----
	RM	Copper	7440-50-8	E440	123 mg/kg	102	70.0	130	----
	RM	Iron	7439-89-6	E440	23558 mg/kg	97.2	70.0	130	----
	RM	Lead	7439-92-1	E440	267 mg/kg	98.9	70.0	130	----
	RM	Lithium	7439-93-2	E440	9.5 mg/kg	104	70.0	130	----
	RM	Magnesium	7439-95-4	E440	5509 mg/kg	101	70.0	130	----
	RM	Manganese	7439-96-5	E440	269 mg/kg	96.5	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	1.03 mg/kg	101	70.0	130	----
	RM	Nickel	7440-02-0	E440	26.7 mg/kg	100.0	70.0	130	----
	RM	Phosphorus	7723-14-0	E440	752 mg/kg	101	70.0	130	----
	RM	Potassium	7440-09-7	E440	1587 mg/kg	99.6	70.0	130	----
	RM	Silver	7440-22-4	E440	4.06 mg/kg	96.7	70.0	130	----
	RM	Sodium	7440-23-5	E440	797 mg/kg	104	70.0	130	----
	RM	Strontium	7440-24-6	E440	86.1 mg/kg	99.9	70.0	130	----
	RM	Thallium	7440-28-0	E440	0.0786 mg/kg	91.0	40.0	160	----
	RM	Tin	7440-31-5	E440	10.6 mg/kg	100	70.0	130	----
	RM	Titanium	7440-32-6	E440	839 mg/kg	87.6	70.0	130	----
	RM	Uranium	7440-61-1	E440	0.52 mg/kg	97.8	70.0	130	----
	RM	Vanadium	7440-62-2	E440	32.7 mg/kg	96.6	70.0	130	----
	RM	Zinc	7440-66-6	E440	297 mg/kg	96.5	70.0	130	----
	RM	Zirconium	7440-67-7	E440	5.73 mg/kg	95.5	70.0	130	----
Metals (QCLot: 1186782)									
	RM	Mercury	7439-97-6	E510	0.059 mg/kg	101	70.0	130	----
Metals (QCLot: 1186783)									
	RM	Aluminum	7429-90-5	E440	9817 mg/kg	102	70.0	130	----
	RM	Antimony	7440-36-0	E440	3.99 mg/kg	99.8	70.0	130	----
	RM	Arsenic	7440-38-2	E440	3.73 mg/kg	109	70.0	130	----
	RM	Barium	7440-39-3	E440	105 mg/kg	104	70.0	130	----
	RM	Beryllium	7440-41-7	E440	0.349 mg/kg	96.3	70.0	130	----
	RM	Boron	7440-42-8	E440	8.5 mg/kg	105	40.0	160	----

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: 1186783) - continued									
	RM	Cadmium	7440-43-9	E440	0.91 mg/kg	103	70.0	130	----
	RM	Calcium	7440-70-2	E440	31082 mg/kg	98.5	70.0	130	----
	RM	Chromium	7440-47-3	E440	101 mg/kg	97.4	70.0	130	----
	RM	Cobalt	7440-48-4	E440	6.9 mg/kg	103	70.0	130	----
	RM	Copper	7440-50-8	E440	123 mg/kg	108	70.0	130	----
	RM	Iron	7439-89-6	E440	23558 mg/kg	103	70.0	130	----
	RM	Lead	7439-92-1	E440	267 mg/kg	104	70.0	130	----
	RM	Lithium	7439-93-2	E440	9.5 mg/kg	102	70.0	130	----
	RM	Magnesium	7439-95-4	E440	5509 mg/kg	106	70.0	130	----
	RM	Manganese	7439-96-5	E440	269 mg/kg	104	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	1.03 mg/kg	98.4	70.0	130	----
	RM	Nickel	7440-02-0	E440	26.7 mg/kg	106	70.0	130	----
	RM	Phosphorus	7723-14-0	E440	752 mg/kg	104	70.0	130	----
	RM	Potassium	7440-09-7	E440	1587 mg/kg	102	70.0	130	----
	RM	Silver	7440-22-4	E440	4.06 mg/kg	80.5	70.0	130	----
	RM	Sodium	7440-23-5	E440	797 mg/kg	106	70.0	130	----
	RM	Strontium	7440-24-6	E440	86.1 mg/kg	96.2	70.0	130	----
	RM	Thallium	7440-28-0	E440	0.0786 mg/kg	96.5	40.0	160	----
	RM	Tin	7440-31-5	E440	10.6 mg/kg	101	70.0	130	----
	RM	Titanium	7440-32-6	E440	839 mg/kg	94.6	70.0	130	----
	RM	Uranium	7440-61-1	E440	0.52 mg/kg	99.4	70.0	130	----
	RM	Vanadium	7440-62-2	E440	32.7 mg/kg	99.2	70.0	130	----
	RM	Zinc	7440-66-6	E440	297 mg/kg	106	70.0	130	----
	RM	Zirconium	7440-67-7	E440	5.73 mg/kg	93.2	70.0	130	----

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Blackwater Gold Ltd.
Contact:	Mark Warbanski

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	jessica.lowey@erm.com
Email 2	kimberly.san@erm.com
Email 3	amuttray@entiaenviro.com

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	kimberly.san@erm.com
Email 2	patty.vadnais@erm.com

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

Project Information	
ALS Account # / Quote #:	VA23-ERMO100-018
Job #:	0700679-02-003 (Blackwater)
PO / AFE:	
LSD:	

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

ALS Lab Work Order # (lab use only): C4042 **ALS Contact:** Amber Springer **Sampler:**

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	As per Quote VA23-ERMO100-018	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
1	016-SOIL	21-Sep-23	16:51	SOIL	1	R		
	041-SOIL	24-Sep-23	15:09	SOIL	1	R		
	020-SOIL	21-Sep-23	15:38	SOIL	1	R		
	012-SOIL	22-Sep-23	15:48	SOIL	1	R		
	046-SOIL	25-Sep-23	9:04	SOIL	1	R		
	034-SOIL	25-Sep-23	10:20	SOIL	1	R		
	044-SOIL	24-Sep-23	16:54	SOIL	1	R		
	045-SOIL	25-Sep-23	8:14	SOIL	1	R		
	035-SOIL	23-Sep-23	16:16	SOIL	1	R		
	037-SOIL	23-Sep-23	17:03	SOIL	1	R		
	011-SOIL	22-Sep-23	16:28	SOIL	1	R		
12	038-SOIL	23-Sep-23	15:55	SOIL	1	R		

Environmental Division
Vancouver
Work Order Reference
VA23C4042

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	
Are samples for human consumption/ use? ☐ YES ☑ NO	Analysis as per quote VA23-ERMO100-018. Do not include arsenic speciation for tissue

SAMPLE CONDITION AS RECEIVED (lab use only)

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

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				6	6	6	8

SHIPMENT RELEASE (client use)		
Released by:	Date:	Time:

INITIAL SHIPMENT RECEPTION (lab use only)		
Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (lab use only)		
Received by: JC	Date: 29-9-23	Time: 11 am

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2015 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.**

COC received on Oct 10/23

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Blackwater Gold Ltd.
Contact:	Mark Warbanski

Report Format / Distribution

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

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

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

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	jessica.lowey@erm.com
Email 2	kimberly.san@erm.com
Email 3	amuttray@entiaenviro.com

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	kimberly.san@erm.com
Email 2	patty.vadnais@erm.com

Project Information

ALS Account # / Quote #:	VA23-ERMO100-018
Job #:	0700679-02-003 (Blackwater)
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)

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

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer **Sampler:**

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

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

PRIORITY (Business Days)

- 4 day [P4-20%] ☐
- 3 day [P3-25%] ☐
- 2 day [P2-50%] ☐

EMERGENCY

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

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

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

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	As per Quote VA23-ERMO100-018	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
13	DUP5-SOIL	21-Sep-23	16:51	SOIL	1	R		
	033-SOIL	22-Sep-23	15:07	SOIL	1	R		
	036-SOIL	22-Sep-23	16:38	SOIL	1	R		
	028-SOIL	25-Sep-23	13:14	SOIL	1	R		
	039-SOIL	22-Sep-23	15:38	SOIL	1	R		
	043-SOIL	24-Sep-23	16:35	SOIL	1	R		
	025-SOIL	21-Sep-23	14:06	SOIL	1	R		
20	042-SOIL	24-Sep-23	15:47	SOIL	1	R		

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

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

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

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

Analysis as per quote VA23-ERMO100-018. Do not include arsenic speciation for tissue

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

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

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Blackwater Gold Ltd.
Contact:	Mark Warbanski

Report Format / Distribution

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

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

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

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: jessica.lowey@erm.com

Email 2: kimberly.san@erm.com

Email 3: amuttray@entiaenviro.com

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: kimberly.san@erm.com

Email 2: patty.vadnais@erm.com

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

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

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

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

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

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

Project Information

ALS Account # / Quote #: VA23-ERMO100-018

Job #: 0700679-02-003 (Blackwater)

PO / AFE:

LSD:

Oil and Gas Required Fields (client use)

AFE/Cost Center: | PO#

Major/Minor Code: | Routing Code:

Requisitioner:

Location:

ALS Lab Work Order # (lab use only): [illegible]

ALS Contact: Amber Springer | Sampler:

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	As per Quote VA23-ERMO100-018	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
21	020-SEDGE	21-Sep-23	15:38	SEDGE	1	R		
22	039-SEDGE	23-Sep-23	16:38	SEDGE	1	R		
23	038-SEDGE	23-Sep-23	15:55	SEDGE	1	R		
24	041-SEDGE	24-Sep-23	15:09	SEDGE	1	R		
25	028-SEDGE	25-Sep-23	13:14	SEDGE	1	R		
26	037-SEDGE	23-Sep-23	17:03	SEDGE	1	R		
27	036-SEDGE	23-Sep-23	16:38	SEDGE	1	R		
28	025-SEDGE	21-Sep-23	14:06	SEDGE	1	R		
29	016-SEDGE	21-Sep-23	16:51	SEDGE	1	R		
30	033-SEDGE	22-Sep-23	15:07	SEDGE	1	R		
31	011-SEDGE	22-Sep-23	16:28	SEDGE	1	R		
32	012-SEDGE	22-Sep-23	15:48	SEDGE	1	R		

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

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

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

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

Analysis as per quote VA23-ERMO100-018. Do not include arsenic speciation for tissue

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

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

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2018 FRONT

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

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Blackwater Gold Ltd.
Contact:	Mark Warbanski

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	jessica.lowey@erm.com
Email 2	kimberly.san@erm.com
Email 3	amuttray@entiaenviro.com

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	kimberly.san@erm.com
Email 2	patty.vadnais@erm.com

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

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	VA23-ERMO100-018	AFE/Cost Center:	PO#
Job #:	0700679-02-003 (Blackwater)	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer

Sampler:

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	As per Quote VA23-ERMO100-018	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
33	016-WILL	21-Sep-23	16:51	TISSUE	1	R		
34	041-WILL	24-Sep-23	15:09	TISSUE	1	R		
35	020-WILL	21-Sep-23	15:38	TISSUE	1	R		
36	012-WILL	22-Sep-23	15:48	TISSUE	1	R		
37	046-WILL	25-Sep-23	9:04	TISSUE	1	R		
38	034-WILL	25-Sep-23	10:20	TISSUE	1	R		
39	044-WILL	24-Sep-23	16:54	TISSUE	1	R		
40	045-WILL	25-Sep-23	8:14	TISSUE	1	R		
41	035-WILL	23-Sep-23	16:16	TISSUE	1	R		
42	037-WILL	23-Sep-23	17:03	TISSUE	1	R		
43	011-WILL	22-Sep-23	16:28	TISSUE	1	R		
44	038-WILL	23-Sep-23	15:55	TISSUE	1	R		

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	
Are samples for human consumption/ use? ☑ YES ☑ NO	Analysis as per quote VA23-ERMO100-018. Do not include arsenic speciation for tissue

SAMPLE CONDITION AS RECEIVED (lab use only)

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

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

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

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

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COC Number: 17 -

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Blackwater Gold Ltd.
Contact:	Mark Warbanski

Report Format / Distribution

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

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

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

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	jessica.lowey@erm.com
Email 2	kimberly.san@erm.com
Email 3	amuttray@entiaenviro.com

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	kimberly.san@erm.com
Email 2	patty.vadnais@erm.com

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

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

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

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

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

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

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	VA23-ERMO100-018	AFE/Cost Center:	PO#
Job #:	0700679-02-003 (Blackwater)	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (lab use only): | **ALS Contact:** Amber Springer | **Sampler:**

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	As per Quote VA23-ERMO100-018	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
45	033-WILL	22-Sep-23	15:07	TISSUE	1	R		
46	036-WILL	22-Sep-23	16:38	TISSUE	1	R		
47	028-WILL	25-Sep-23	13:14	TISSUE	1	R		
48	039-WILL	22-Sep-23	15:38	TISSUE	1	R		
49	043-WILL	24-Sep-23	16:35	TISSUE	1	R		
50	025-WILL	21-Sep-23	14:06	TISSUE	1	R		
51	042-WILL	24-Sep-23	15:47	TISSUE	1	R		
52	011-LAB	22-Sep-23	16:28	TISSUE	1	R		
53	012-LAB	22-Sep-23	15:48	TISSUE	1	R		
54	033-LAB	22-Sep-23	15:07	TISSUE	1	R		
55	036-LAB	23-Sep-23	16:38	TISSUE	1	R		
56	041-LAB	24-Sep-23	15:09	TISSUE	1	R		

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

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

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

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

Analysis as per quote VA23-ERMO100-018. Do not include arsenic speciation for tissue

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

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

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2016 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.

Appendix A.3 Surface Water Quality Results, 2023

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Physical Tests									Anions and Nutrients					
						pH	Conductivity	Hardness (as $CaCO_3$)-Dissolved	Hardness (as $CaCO_3$)-Total	Total Dissolved Solids	Total Suspended Solids	Turbidity	Acidity (as $CaCO_3$)	Alkalinity, Total (as $CaCO_3$)	Total Kjeldahl Nitrogen	Ammonia, Total (as N)	Nitrate (as N)	Nitrite (as N)	Orthophosphate-Dissolved (as P)	Total Phosphate (as P)
						pH units	µS/cm	mg/L	mg/L	mg/L	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23C6622-009	11/2/2023	8.18	148	76.1	73.5	82	9.7	2.27	<2.0	80.9	0.544	0.0145	<0.0050	<0.0010	<0.0010	0.0542
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23C6622-008	11/2/2023	8.2	148	75.6	72.9	85	7.1	1.94	<2.0	79.7	0.571	0.0147	<0.0050	<0.0010	<0.0010	0.0264
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23C6622-007	11/2/2023	8.22	148	76.7	73.4	97	5.5	2.25	<2.0	80.5	0.477	0.0162	<0.0050	<0.0010	0.0014	0.0203
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23C1854-001	9/13/2023	8.15	146	73.9	73.9	94	8	4.17	<2.0	79.2	0.872	0.0366	0.0124	<0.0010	<0.0010	0.0462
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23C1854-002	9/13/2023	8.15	146	73.2	72.8	91	5	2.83	<2.0	78.7	0.703	0.0404	0.012	<0.0010	<0.0010	0.043
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23C1854-003	9/13/2023	8.13	147	73.3	70.8	102	4	3.72	<2.0	79	0.679	0.095	0.0146	<0.0010	0.0016	0.0446
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23B2052-008	5/29/2023	8.08	144	73	69.6	94	<3.0	0.66	<2.0	75.1	0.44	0.0095	0.08	0.0017	<0.0010	0.0221
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23B2052-007	5/29/2023	8.05	145	71.5	69.1	100	<3.0	0.77	<2.0	74.9	0.609	0.0211	0.0832	0.0018	0.0024	0.0265
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23B2052-006	5/29/2023	7.97	151	74.3	71.9	108	<3.0	1.02	<2.0	78.2	0.694	0.278	0.0951	0.0104	0.0194	0.073
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23A3692-003	2/15/2023	7.98	155	68.1	71.7	107	<3.0	0.21	<2.0	78.5	0.5	0.114	0.0529	0.0034	0.0045	0.0126
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23A3692-002	2/15/2023	7.83	159	69	69.1	103	<3.0	0.36	<2.0	75.8	0.345	0.0061	0.236	<0.0010	0.009	0.0164
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23A3692-001	2/15/2023	7.79	175	71.9	74.3	115	<3.0	2.32	<2.0	86	0.718	0.371	0.117	0.0069	0.0467	0.0683
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23C5293-003	10/19/2023	8.09	146	70.4	73.1	76	<3.0	0.63	<2.0	73	0.289	0.0102	0.0105	0.0011	0.0017	0.0112
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23C5293-002	10/19/2023	8.06	148	70.6	70.6	79	<3.0	0.62	<2.0	72.8	0.328	0.0111	0.0228	0.0016	0.0033	0.0143
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23C5293-001	10/19/2023	7.87	148	69.2	71.2	88	<3.0	1.69	<2.0	71.8	0.248	0.0066	0.165	<0.0010	0.0377	0.0453
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23C0266-003	8/28/2023	8.31	144	65.6	65.5	99	3.5	1.65	<2.0	71.8	0.39	<0.0050	<0.0050	<0.0010	<0.0010	0.0189
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23C0266-002	8/28/2023	7.8	147	64.8	67	100	<3.0	0.24	2.8	71.7	0.26	0.005	0.0789	<0.0010	0.0035	0.0136
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23C0266-001	8/28/2023	7.74	146	68.6	69.1	112	<3.0	2.25	3	72.5	0.236	0.0077	0.186	<0.0010	0.0413	0.0545
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23B1690-011	5/24/2023	8.07	134	61.3	63.6	110	<3.0	0.55	<2.0	69	0.31	<0.0050	<0.0050	<0.0010	<0.0010	0.0161
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23B1690-010	5/24/2023	8.01	130	62.7	65.8	105	<3.0	0.56	<2.0	72.3	0.277	<0.0050	<0.0050	<0.0010	0.0017	0.0378
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23B1690-009	5/24/2023	8	139	67.2	68.3	110	<3.0	0.55	<2.0	70.4	0.256	0.006	0.077	<0.0010	0.0109	0.0266
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23A3177-007	2/8/2023	7.96	150	65.5	68.2	98	<3.0	0.26	<2.0	73.1	0.244	<0.0050	0.118	<0.0010	0.019	0.0247
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23A3177-006	2/8/2023	7.94	144	64.1	65.4	91	<3.0	0.23	<2.0	71.1	0.228	<0.0050	0.117	<0.0010	0.0187	0.0236
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23A3177-005	2/8/2023	7.92	147	65.1	67.5	92	7.6	2.65	<2.0	71.2	0.26	<0.0050	0.126	<0.0010	0.0186	0.0316
Davidson Creek	DC-05	Surface	Primary	VA23D0155-002	12/15/2023	7.88	86.6	35.4	37.2	54	<3.0	3.39	<2.0	41.6	0.081	<0.0050	0.0431	<0.0010	0.0053	0.0131
Davidson Creek	DC-05	Surface	Primary	VA23C7190-002	11/8/2023	7.57	76.9	30.8	32.3	72	<3.0	6.76	<2.0	34.2	0.126	<0.0050	0.0599	<0.0010	0.004	0.0193
Davidson Creek	DC-05	Surface	Primary	VA23C6383-003	10/31/2023	7.76	100	41.3	41.6	55	<3.0	1.62	2.2	48.5	0.084	<0.0050	<0.0050	<0.0010	0.0035	0.0132
Davidson Creek	DC-05	Surface	Primary	VA23C5894-001	10/25/2023	7.84	101	44.1	46.1	86	<3.0	3.36	<2.0	48.9	0.125	<0.0050	0.0067	<0.0010	0.003	0.0128
Davidson Creek	DC-05	Surface	Primary	VA23C4858-003	10/16/2023	7.88	95	41.5	40.8	61	<3.0	1.59	2.1	47.6	0.07	<0.0050	<0.0050	<0.0010	0.0024	0.0106
Davidson Creek	DC-05	Surface	Primary	VA23C4586-001	10/14/2023	7.73	91.6	40.2	40.3	63	<3.0	2.14	2.2	45.6	0.079	<0.0050	<0.0050	<0.0010	0.0038	0.0097
Davidson Creek	DC-05	Surface	Duplicate	VA23C4586-002	10/14/2023	7.72	92.7	39	39.9	67	<3.0	2.21	2.1	45.2	0.086	<0.0050	<0.0050	<0.0010	<0.0010	0.0103
Davidson Creek	DC-05	Surface	Primary	VA23C4014-002	10/5/2023	7.72	82.6	36.5	35	62	3	6.56	2.2	40.5	0.119	<0.0050	<0.0050	<0.0010	0.0034	0.0189
Davidson Creek	DC-05	Surface	Primary	VA23C0875-003	9/4/2023	7.68	84.8	35	36.1	73	<3.0	0.38	2	39.7	0.092	<0.0050	<0.0050	<0.0010	0.0022	0.0084
Davidson Creek	DC-05	Surface	Primary	VA23B9219-002	8/16/2023	7.64	73.6	30.3	32.1	64	<3.0	1.22	<2.0	32.2	0.15	<0.0050	<0.0050	<0.0010	0.0034	0.0122
Davidson Creek	DC-05	Surface	Primary	VA23B7293-008	7/25/2023	7.45	84	33.2	33	126	<3.0	1.36	2.1	19.2	0.25	<0.0050	<0.0050	<0.0010	0.0032	0.019
Davidson Creek	DC-05	Surface	Primary	VA23B4181-003	6/21/2023	7.52	48.5	22.6	21.5	38	<3.0	0.43	2	23.7	0.171	<0.0050	<0.0050	<0.0010	0.0021	0.0094
Davidson Creek	DC-05	Surface	Primary	VA23B2052-005	5/29/2023	7.46	39.9	17.1	16.4	41	<3.0	0.43	2.5	17.2	0.131	0.0051	<0.0050	<0.0010	0.0012	0.0124
Davidson Creek	DC-05	Surface	Primary	VA23B1529-005	5/23/2023	7.25	31.5	13	13.3	35	<3.0	0.53	2.5	13.4	0.192	<0.0050	<0.0050	<0.0010	0.0013	0.0104
Davidson Creek	DC-05	Surface	Primary	VA23B0766-010	5/16/2023	7.08	23.6	9.95	9.63	47	<3.0	1.86	2.9	8.6	0.242	<0.0050	<0.0050	<0.0010	0.0011	0.0174
Davidson Creek	DC-05	Surface	Primary	VA23B0222-006	5/9/2023	7	26.1	11.8	12	50	4.6	2.9	3	9.3	0.414	<0.0050	<0.0050	<0.0010	0.0013	0.0267
Davidson Creek	DC-05	Surface	Primary	VA23A9893-002	5/4/2023	7.06	34.3	15.6	16.4	76	6.1	5.42	3.3	10.9	0.554	<0.0050	<0.0050	<0.0010	0.0044	0.0474
Davidson Creek	DC-05	Surface	Primary	VA23A7852-002	4/11/2023	7.81	122	51.8	52.4	70	<3.0	0.17	<2.0	57.7	<0.050	<0.0050	0.0127	<0.0010	0.0057	0.008
Davidson Creek	DC-05	Surface	Primary	VA23A5627-002	3/14/2023	7.68	121	55.6	50.6	79	<3.0	0.14	<2.0	60	<0.050	<0.0050	0.0406	<0.0010	0.0082	0.009
Davidson Creek	DC-05	Surface	Primary	VA23A2861-004	2/6/2023	7.95	116	48.9	48.4	78	<3.0	0.18	<2.0	55.8	0.054	<0.0050	0.0448	<0.0010	0.0074	0.0094
Davidson Creek	DC-05	Surface	Primary	VA23A1261-002	1/17/2023	7.96	115	47.8	49.1	84	<3.0	0.33	<2.0	56.8	<0.050	<0.0050	0.0392	<0.0010	0.0075	0.0083
Davidson Creek	DC-05	Surface	Duplicate	VA23A1261-005	1/17/2023	7.88	116	48.4	48.8	77	<3.0	0.34	<2.0	57.2	<0.050	<0.0050	0.0394	<0.0010	0.0064	0.0081

Notes:
"-" indicates parameter was not analyzed.
"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Physical Tests									Anions and Nutrients					
						pH	Conductivity	Hardness ($CaCO_3$)-Dissolved	Hardness ($CaCO_3$)-Total	Total Dissolved Solids	Total Suspended Solids	Turbidity	Acidity ($CaCO_3$)	Alkalinity, Total ($CaCO_3$)	Total Kjeldahl Nitrogen	Ammonia, Total (as N)	Nitrate (as N)	Nitrite (as N)	Orthophosphate-Dissolved (as P)	Total Phosphate (as P)
						pH units	µS/cm	mg/L	mg/L	mg/L	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Davidson Creek	DC-10	Surface	Primary	VA23D0155-003	12/15/2023	7.87	88.4	36.2	37.8	61	<3.0	2.3	<2.0	42.3	0.071	<0.0050	0.0424	<0.0010	0.0044	0.011
Davidson Creek	DC-10	Surface	Duplicate	VA23D0155-004	12/15/2023	7.87	90	37	38.3	61	<3.0	2.37	<2.0	42.4	0.072	<0.0050	0.042	<0.0010	0.0045	0.0112
Davidson Creek	DC-10	Surface	Primary	VA23C7190-003	11/8/2023	7.58	78.9	33.2	33.3	74	<3.0	6.77	<2.0	35.2	0.114	<0.0050	0.0552	<0.0010	0.004	0.0169
Davidson Creek	DC-10	Surface	Primary	VA23C4014-003	10/5/2023	7.7	86	38.5	37.5	56	<3.0	3.52	<2.0	42.6	0.088	<0.0050	<0.0050	<0.0010	0.0017	0.0124
Davidson Creek	DC-10	Surface	Primary	VA23C2388-003	9/19/2023	7.86	91.2	41	38.7	71	<3.0	0.37	<2.0	43.9	0.089	<0.0050	<0.0050	<0.0010	0.0035	0.0063
Davidson Creek	DC-10	Surface	Primary	VA23B9219-003	8/16/2023	7.67	72.9	33.1	33.5	66	<3.0	0.89	2	32.9	0.141	<0.0050	<0.0050	<0.0010	0.0034	0.009
Davidson Creek	DC-10	Surface	Primary	VA23B7293-007	7/25/2023	7.46	84.1	33.2	33.7	106	7.6	1.69	2.1	22.4	0.266	<0.0050	<0.0050	<0.0010	0.0032	0.0188
Davidson Creek	DC-10	Surface	Primary	VA23B4181-004	6/21/2023	7.52	52	22.6	22.8	42	14	1.75	2	24.7	0.19	0.0189	<0.0050	<0.0010	0.0018	0.0087
Davidson Creek	DC-10	Surface	Primary	VA23A9893-003	5/4/2023	7.07	35.2	15.8	17.1	73	6.1	4.74	3.1	11.5	0.552	<0.0050	<0.0050	<0.0010	0.0041	0.0466
Davidson Creek	DC-10	Surface	Primary	VA23A7852-003	4/11/2023	7.81	120	51.6	51.5	75	<3.0	0.18	<2.0	58.4	<0.050	<0.0050	0.0183	<0.0010	0.0039	0.0076
Davidson Creek	DC-10	Surface	Primary	VA23A5627-003	3/14/2023	7.53	122	54.9	51.1	80	<3.0	0.18	<2.0	62.8	<0.050	<0.0050	0.0382	<0.0010	0.0073	0.0087
Davidson Creek	DC-10	Surface	Primary	VA23A2861-005	2/6/2023	7.95	116	50.7	48.2	69	<3.0	0.23	<2.0	56.2	<0.050	<0.0050	0.0493	<0.0010	0.0068	0.0088
Davidson Creek	DC-10	Surface	Duplicate	VA23A2861-006	2/6/2023	7.94	116	50.1	48	73	<3.0	0.24	<2.0	56.2	<0.050	<0.0050	0.0502	<0.0010	0.0069	0.0088
Davidson Creek	DC-10	Surface	Primary	VA23A1261-003	1/17/2023	7.95	115	48.8	49.5	86	<3.0	0.61	<2.0	56.7	<0.050	<0.0050	0.0426	<0.0010	0.007	0.0075
Davidson Creek	DC-15	Surface	Primary	VA23D0155-005	12/15/2023	7.96	107	45.3	46.7	74	<3.0	1	<2.0	52	0.064	<0.0050	0.0335	<0.0010	0.0037	0.0084
Davidson Creek	DC-15	Surface	Primary	VA23C7190-004	11/8/2023	7.71	95.5	40.2	41.2	74	<3.0	3.42	<2.0	44.2	0.1	<0.0050	0.0346	<0.0010	0.0032	0.0127
Davidson Creek	DC-15	Surface	Primary	VA23C4279-006	10/10/2023	7.81	109	48.2	50.3	76	<3.0	0.44	<2.0	55	0.089	<0.0050	0.0057	<0.0010	<0.0010	0.007
Davidson Creek	DC-15	Surface	Primary	VA23C2388-004	9/19/2023	7.96	107	47.3	45.9	80	<3.0	0.18	<2.0	52.2	0.082	<0.0050	<0.0050	<0.0010	0.0027	0.006
Davidson Creek	DC-15	Surface	Primary	VA23B9219-004	8/16/2023	7.79	85.9	39.6	40	69	<3.0	0.42	<2.0	40.4	0.12	<0.0050	<0.0050	<0.0010	0.0028	0.01
Davidson Creek	DC-15	Surface	Primary	VA23B7293-006	7/25/2023	7.59	84.2	34.7	35.2	84	9.4	2.45	2	27.9	0.259	0.0068	<0.0050	<0.0010	0.0029	0.0259
Davidson Creek	DC-15	Surface	Duplicate	VA23B7293-011	7/25/2023	7.57	83.8	34.9	34.4	83	9.6	1.94	2.1	27.3	0.234	0.0108	<0.0050	<0.0010	0.0021	0.0247
Davidson Creek	DC-15	Surface	Primary	VA23B4181-005	6/21/2023	7.65	63	28.7	28.2	41	<3.0	0.28	<2.0	31.1	0.15	<0.0050	<0.0050	<0.0010	0.002	0.0085
Davidson Creek	DC-15	Surface	Primary	VA23A9893-004	5/4/2023	7.24	42	19.1	20.2	71	12.1	6.18	2.9	15	0.566	<0.0050	0.0052	<0.0010	0.0036	0.0519
Davidson Creek	DC-15	Surface	Primary	VA23A9076-001	4/25/2023	7.99	128	56.8	56.7	112	<3.0	1.13	2.3	62.8	0.125	<0.0050	0.0114	<0.0010	0.0036	0.0096
Davidson Creek	DC-15	Surface	Primary	VA23A5821-002	3/15/2023	8	132	57.8	58.9	82	<3.0	0.12	<2.0	66.7	<0.050	<0.0050	0.0441	<0.0010	0.0058	0.0088
Davidson Creek	DC-15	Surface	Primary	VA23A2670-003	2/4/2023	7.99	131	54.7	57.5	79	<3.0	0.12	<2.0	65.2	<0.050	<0.0050	0.0361	<0.0010	0.0062	0.008
Davidson Creek	DC-15	Surface	Duplicate	VA23A2670-004	2/4/2023	7.97	131	56.2	57.6	78	<3.0	0.12	<2.0	66.2	<0.050	<0.0050	0.0379	<0.0010	0.0064	0.0081
Davidson Creek	DC-15	Surface	Primary	VA23A1491-004	1/19/2023	7.68	129	58.2	55.4	90	<3.0	0.22	2.1	64.7	<0.050	<0.0050	0.0351	<0.0010	0.0063	0.008
Davidson Creek	DC-20	Surface	Primary	VA23C9626-004	12/6/2023	7.67	112	44.6	45.5	76	<3.0	2.78	<2.0	54	0.097	0.0136	0.0156	<0.0010	0.0014	0.012
Davidson Creek	DC-20	Surface	Primary	VA23C6498-006	11/1/2023	8.02	122	48.7	53.4	63	<3.0	0.65	<2.0	60	0.08	<0.0050	<0.0050	<0.0010	0.0032	0.0078
Davidson Creek	DC-20	Surface	Primary	VA23C5771-005	10/24/2023	7.85	109	47.3	45.3	69	4.9	1.69	<2.0	53.1	0.098	<0.0050	<0.0050	<0.0010	0.0024	0.0128
Davidson Creek	DC-20	Surface	Primary	VA23C5184-002	10/20/2023	7.81	111	54.5	52.8	75	10	3.04	<2.0	56.4	0.095	<0.0050	<0.0050	<0.0010	0.0022	0.0096
Davidson Creek	DC-20	Surface	Duplicate	VA23C5184-003	10/20/2023	7.81	112	52.8	52.2	81	<3.0	0.74	<2.0	56.4	0.096	<0.0050	<0.0050	<0.0010	0.003	0.01
Davidson Creek	DC-20	Surface	Primary	VA23C4458-004	10/11/2023	8.04	114	51.9	51.1	68	<3.0	0.67	<2.0	57.4	0.101	0.0141	<0.0050	<0.0010	<0.0010	0.0106
Davidson Creek	DC-20	Surface	Primary	VA23C3871-006	10/4/2023	7.92	113	49.9	53.9	73	<3.0	0.49	<2.0	56.9	0.077	<0.0050	<0.0050	<0.0010	<0.0010	0.0097
Davidson Creek	DC-20	Surface	Primary	VA23C2546-001	9/20/2023	8.04	108	50.8	50.8	69	<3.0	0.6	<2.0	56	0.081	<0.0050	<0.0050	<0.0010	0.0032	0.0104
Davidson Creek	DC-20	Surface	Duplicate	VA23C2546-002	9/20/2023	8.05	108	50.7	51.5	68	<3.0	0.61	<2.0	56.2	0.081	<0.0050	<0.0050	<0.0010	0.0037	0.0106
Davidson Creek	DC-20	Surface	Primary	VA23B9723-001	8/22/2023	7.83	101	44.6	44.1	80	5.5	0.77	2.1	48.7	0.134	<0.0050	<0.0050	<0.0010	0.0061	0.013
Davidson Creek	DC-20	Surface	Primary	VA23B7734-005	7/31/2023	7.63	95.5	39.8	40.3	83	<3.0	0.96	2.4	37.7	0.166	<0.0050	<0.0050	<0.0010	0.0029	0.0123
Davidson Creek	DC-20	Surface	Primary	VA23B2847-003	6/6/2023	7.62	69.6	30.4	30.6	65	<3.0	0.41	2.1	34.4	0.124	<0.0050	<0.0050	<0.0010	0.0016	0.0075
Davidson Creek	DC-20	Surface	Primary	VA23B2219-004	5/30/2023	7.6	58.3	24.6	25.5	42	<3.0	0.48	2	29.2	0.153	<0.0050	<0.0050	<0.0010	0.0012	0.0088
Davidson Creek	DC-20	Surface	Primary	VA23B1690-002	5/24/2023	7.49	45.2	20.1	21.3	59	6.2	1.37	2.1	23	0.167	<0.0050	<0.0050	<0.0010	0.0017	0.0114
Davidson Creek	DC-20	Surface	Primary	VA23B1108-005	5/17/2023	7.35	35.3	14.7	16.2	38	10.8	2.33	2.3	15.2	0.295	0.0061	<0.0050	<0.0010	0.0014	0.0201
Davidson Creek	DC-20	Surface	Primary	VA23B0508-005	5/11/2023	7.32	36.7	16.4	16.6	61	14.9	4.1	2.6	14.7	0.349	0.0058	<0.0050	<0.0010	0.0017	0.0295
Davidson Creek	DC-20	Surface	Primary	VA23A9782-004	5/3/2023	7.42	55.7	26.9	27.3	73	28.2	10.1	<2.0	24.9	0.528	0.0063	<0.0050	<0.0010	0.0021	0.065
Davidson Creek	DC-20	Surface	Primary	VA23A9207-003	4/26/2023	8.12	119	50.9	53.2	90	15.1	3.02	<2.0	61.4	0.186	<0.0050	<0.0050	<0.0010	0.0034	0.0199

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Physical Tests									Anions and Nutrients					
						pH	Conductivity	Hardness (as $CaCO_3$)-Dissolved	Hardness (as $CaCO_3$)-Total	Total Dissolved Solids	Total Suspended Solids	Turbidity	Acidity (as $CaCO_3$)	Alkalinity, Total (as $CaCO_3$)	Total Kjeldahl Nitrogen	Ammonia, Total (as N)	Nitrate (as N)	Nitrite (as N)	Orthophosphate-Dissolved (as P)	Total Phosphate (as P)
						pH units	µS/cm	mg/L	mg/L	mg/L	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Davidson Creek	DC-20	Surface	Primary	VA23A6097-005	3/20/2023	7.89	136	62.6	63.1	101	<3.0	0.41	<2.0	68.7	0.051	<0.0050	0.0371	<0.0010	0.0044	0.0075
Davidson Creek	DC-20	Surface	Primary	VA23A3560-002	2/14/2023	7.85	130	57.6	58.3	90	<3.0	1.08	2.3	65.2	0.07	0.0051	0.0248	<0.0010	0.0039	0.0125
Davidson Creek	DC-20	Surface	Primary	VA23A1889-001	1/24/2023	7.99	137	63.4	65.3	100	<3.0	1.81	<2.0	68.8	0.253	<0.0050	0.035	<0.0010	0.0026	0.0248
Turtle Creek	TC-01	Surface	Primary	VA23D0165-002	12/14/2023	8.16	213	103	108	129	<3.0	0.11	<2.0	114	<0.050	0.0072	0.0581	<0.0010	0.003	0.0055
Turtle Creek	TC-01	Surface	Primary	VA23C6880-003	11/6/2023	7.76	199	94	98.9	118	<3.0	0.12	4.4	108	0.052	0.0072	0.0527	<0.0010	0.0027	0.0051
Turtle Creek	TC-01	Surface	Primary	VA23C4014-009	10/6/2023	7.81	186	96.7	90	107	<3.0	0.38	<2.0	104	0.08	0.0077	0.0329	<0.0010	0.0012	0.0088
Turtle Creek	TC-01	Surface	Primary	VA23C1674-003	9/12/2023	8.05	193	93.6	92.8	109	<3.0	0.43	<2.0	105	0.127	0.0067	0.0226	0.0014	0.0011	0.009
Turtle Creek	TC-01	Surface	Primary	VA23B8906-007	8/15/2023	8.17	187	95.1	90.8	108	<3.0	0.83	2.4	104	0.197	0.0148	0.0328	<0.0010	0.0023	0.0135
Turtle Creek	TC-01	Surface	Primary	VA23B7523-005	7/27/2023	7.65	182	92	94.2	120	<3.0	1	<2.0	95.6	0.192	0.0107	0.0283	<0.0010	0.0014	0.0136
Turtle Creek	TC-01	Surface	Primary	VA23B4330-002	6/21/2023	8.08	174	94.5	83.1	106	<3.0	0.51	<2.0	92	0.168	0.007	0.0138	<0.0010	<0.0010	0.0091
Turtle Creek	TC-01	Surface	Duplicate	VA23B4330-007	6/21/2023	8.07	175	92.4	83.6	120	<3.0	0.44	<2.0	91.1	0.17	0.0083	0.0205	<0.0010	0.001	0.0093
Turtle Creek	TC-01	Surface	Primary	VA23A9638-003	5/2/2023	8.11	195	89.3	90.3	118	<3.0	0.18	<2.0	99.8	0.067	0.006	0.0703	<0.0010	<0.0010	0.0077
Turtle Creek	TC-01	Surface	Primary	VA23A8158-004	4/13/2023	8.18	206	98.2	93.2	110	<3.0	0.1	<2.0	112	0.101	<0.0050	0.0397	<0.0010	0.0012	0.0082
Turtle Creek	TC-01	Surface	Primary	VA23A5821-003	3/15/2023	8.15	200	97.5	96.4	116	<3.0	0.17	<2.0	107	0.064	<0.0050	0.0629	<0.0010	0.0028	0.0061
Turtle Creek	TC-01	Surface	Primary	VA23A3268-003	2/10/2023	8.1	203	92.5	102	125	7.5	2.65	<2.0	109	0.81	0.0146	0.0674	<0.0010	0.003	0.0652
Turtle Creek	TC-01	Surface	Primary	VA23A1491-001	1/19/2023	7.84	209	101	104	133	9	1.25	2.6	114	0.217	0.0204	0.0634	<0.0010	0.0025	0.0153
Turtle Creek	TC-05	Surface	Primary	VA23D0165-003	12/14/2023	8.14	218	101	106	137	<3.0	1.28	<2.0	115	0.08	0.0097	0.0158	<0.0010	0.0035	0.0092
Turtle Creek	TC-05	Surface	Primary	VA23C6880-004	11/6/2023	7.86	195	91.4	96	119	<3.0	0.84	2.8	104	0.091	<0.0050	<0.0050	<0.0010	0.0012	0.0083
Turtle Creek	TC-05	Surface	Primary	VA23C4458-006	10/11/2023	8.24	192	94	93.6	110	3.8	0.84	<2.0	105	0.304	0.0081	<0.0050	<0.0010	<0.0010	0.0147
Turtle Creek	TC-05	Surface	Primary	VA23C1674-004	9/12/2023	8.09	192	92.2	92	121	<3.0	1.06	<2.0	99.1	0.159	<0.0050	<0.0050	<0.0010	0.0014	0.0106
Turtle Creek	TC-05	Surface	Duplicate	VA23C1674-006	9/12/2023	8.1	192	89.6	89.6	116	<3.0	0.92	<2.0	99.5	0.165	<0.0050	<0.0050	<0.0010	0.0013	0.0104
Turtle Creek	TC-05	Surface	Primary	VA23B8906-008	8/15/2023	8.16	180	88.2	88.6	118	<3.0	1.25	2	94.2	0.225	0.0073	<0.0050	<0.0010	0.0031	0.0153
Turtle Creek	TC-05	Surface	Primary	VA23B4330-003	6/21/2023	8.08	162	84.8	76.7	98	<3.0	0.68	<2.0	84.2	0.188	0.0058	<0.0050	<0.0010	0.0017	0.0097
Turtle Creek	TC-05	Surface	Primary	VA23B0364-005	5/10/2023	7.53	56.9	27.7	28.2	77	3.8	1.73	2	27.1	0.592	0.0118	0.0076	<0.0010	<0.0010	0.0245
Turtle Creek	TC-05	Surface	Primary	VA23A7852-004	4/11/2023	8.08	205	95.5	96	120	<3.0	1.47	<2.0	106	0.106	0.006	0.0322	<0.0010	0.0028	0.0142
Turtle Creek	TC-05	Surface	Primary	VA23A5821-004	3/15/2023	8.18	205	97.2	98.6	108	<3.0	1.17	<2.0	109	0.081	0.0118	0.0382	<0.0010	0.0052	0.012
Turtle Creek	TC-05	Surface	Primary	VA23A3268-002	2/10/2023	8.1	202	91.9	96.3	128	<3.0	1.27	<2.0	106	0.087	0.0117	0.0266	<0.0010	0.0049	0.0094
Turtle Creek	TC-05	Surface	Primary	VA23A1491-002	1/19/2023	7.89	202	97.2	95.9	137	<3.0	1.32	2.3	105	0.09	0.0111	0.0235	0.0014	0.0056	0.0106
Turtle Creek	TC-10	Surface	Primary	VA23D0165-004	12/14/2023	8.12	230	110	110	152	<3.0	1.44	<2.0	120	0.092	0.0075	0.0084	<0.0010	0.0025	0.0098
Turtle Creek	TC-10	Surface	Duplicate	VA23D0165-005	12/14/2023	8.11	231	108	111	143	<3.0	1.39	<2.0	121	0.094	0.0076	0.0122	<0.0010	0.0024	0.01
Turtle Creek	TC-10	Surface	Primary	VA23C6880-005	11/6/2023	7.87	213	99.7	102	130	<3.0	0.93	3.4	112	0.098	<0.0050	<0.0050	<0.0010	0.0011	0.0102
Turtle Creek	TC-10	Surface	Primary	VA23C4014-010	10/6/2023	7.89	201	103	98.1	122	<3.0	1	<2.0	109	0.132	0.0063	<0.0050	<0.0010	0.0028	0.0124
Turtle Creek	TC-10	Surface	Primary	VA23C1674-005	9/12/2023	8.08	213	102	102	131	<3.0	1.15	<2.0	113	0.194	<0.0050	<0.0050	<0.0010	0.0018	0.014
Turtle Creek	TC-10	Surface	Primary	VA23C0266-005	8/28/2023	8.02	209	98.2	101	148	<3.0	0.93	2.5	111	0.197	<0.0050	<0.0050	<0.0010	0.0026	0.0158
Turtle Creek	TC-10	Surface	Primary	VA23B7293-012	7/25/2023	8.13	201	99.3	97.9	202	<3.0	1.14	2.1	108	0.192	0.0061	<0.0050	<0.0010	0.0035	0.0154
Turtle Creek	TC-10	Surface	Primary	VA23B4330-004	6/21/2023	8.11	176	93.3	84.6	112	<3.0	0.78	<2.0	92.7	0.228	0.006	<0.0050	<0.0010	0.0021	0.0121
Turtle Creek	TC-10	Surface	Primary	VA23A9638-004	5/2/2023	7.75	97.8	43.8	45.1	86	14.9	4.99	2.8	46.6	0.486	0.0087	<0.0050	<0.0010	0.0027	0.0511
Turtle Creek	TC-10	Surface	Primary	VA23A7852-005	4/11/2023	8.1	229	100	101	126	<3.0	1.36	<2.0	111	0.115	<0.0050	0.0116	<0.0010	0.003	0.0171
Turtle Creek	TC-10	Surface	Primary	VA23A5627-004	3/14/2023	8.02	226	108	102	139	<3.0	1.28	2.2	123	0.085	0.012	0.0348	<0.0010	0.0052	0.0102
Turtle Creek	TC-10	Surface	Primary	VA23A3268-001	2/10/2023	8.08	215	96.6	105	138	<3.0	1.13	<2.0	112	0.099	0.0112	0.026	<0.0010	0.005	0.0104
Turtle Creek	TC-10	Surface	Primary	VA23A1111-001	1/16/2023	7.98	218	102	101	162	<3.0	1.44	4.7	113	0.102	0.0123	0.025	<0.0010	0.005	0.0121
Turtle Creek	TC-15	Surface	Primary	VA23C6880-006	11/6/2023	7.87	191	87.5	92.7	115	<3.0	1.34	2.4	98.3	0.13	<0.0050	<0.0050	<0.0010	0.005	0.0149
Turtle Creek	TC-15	Surface	Primary	VA23C4014-011	10/6/2023	8.02	194	95.8	92	112	<3.0	0.45	<2.0	106	0.147	<0.0050	<0.0050	<0.0010	0.0065	0.015
Turtle Creek	TC-15	Surface	Primary	VA23C0266-004	8/28/2023	8.15	213	97.4	100	136	<3.0	0.56	<2.0	114	0.248	<0.0050	<0.0050	<0.0010	0.0042	0.0177
Turtle Creek	TC-15	Surface	Primary	VA23B7523-006	7/27/2023	7.77	186	97.4	93.9	115	<3.0	1.32	<2.0	99	0.223	<0.0050	<0.0050	<0.0010	0.0046	0.015
Turtle Creek	TC-15	Surface	Primary	VA23B4330-005	6/21/2023	8.1	164	87.1	77.5	121	<3.0	0.53	<2.0	85.9	0.247	0.0067	<0.0050	<0.0010	0.0033	0.0172

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Physical Tests									Anions and Nutrients					
						pH	Conductivity	Hardness (as $CaCO_3$)-Dissolved	Hardness (as $CaCO_3$)-Total	Total Dissolved Solids	Total Suspended Solids	Turbidity	Acidity (as $CaCO_3$)	Alkalinity, Total (as $CaCO_3$)	Total Kjeldahl Nitrogen	Ammonia, Total (as N)	Nitrate (as N)	Nitrite (as N)	Orthophosphate-Dissolved (as P)	Total Phosphate (as P)
						pH units	µS/cm	mg/L	mg/L	mg/L	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Turtle Creek	TC-15	Surface	Primary	VA23A9638-005	5/2/2023	7.86	121	53.4	54.4	86	<3.0	1.92	2.9	58.9	0.442	0.0076	<0.0050	<0.0010	0.0027	0.0358
Turtle Creek	TC-15	Surface	Primary	VA23A9207-004	4/26/2023	8.22	153	68.9	68.1	106	14.7	2.39	2	80.3	0.314	0.0261	<0.0050	<0.0010	0.007	0.0425
Creek 661	661-01	Surface	Primary	VA23C9661-001	12/7/2023	7.44	43.3	17.6	16.5	42	<3.0	0.3	2.4	22.3	0.082	0.006	0.071	<0.0010	<0.0010	0.0051
Creek 661	661-01	Surface	Duplicate	VA23C9661-002	12/7/2023	7.46	42.5	17.4	16.8	40	<3.0	0.31	2.3	22.2	0.085	0.0061	0.0738	<0.0010	<0.0010	0.005
Creek 661	661-01	Surface	Primary	VA23C7190-008	11/9/2023	7.31	40	14.9	15.8	45	<3.0	0.17	<2.0	19.3	0.074	<0.0050	0.049	<0.0010	<0.0010	0.0041
Creek 661	661-01	Surface	Primary	VA23C6383-001	10/31/2023	7.23	42.8	16.6	16.5	34	<3.0	0.22	3.8	22.2	0.069	<0.0050	0.061	<0.0010	<0.0010	0.0036
Creek 661	661-01	Surface	Primary	VA23C5894-003	10/25/2023	7.47	50.4	19.6	20.1	53	<3.0	0.19	<2.0	25.2	0.112	<0.0050	0.0591	<0.0010	<0.0010	0.0054
Creek 661	661-01	Surface	Primary	VA23C4858-001	10/16/2023	7.49	41.4	16.6	16	36	<3.0	0.17	2.5	19.9	0.074	<0.0050	0.0199	<0.0010	<0.0010	0.0037
Creek 661	661-01	Surface	Primary	VA23C4586-003	10/14/2023	7.23	39.5	15.3	15.7	36	<3.0	0.94	2.6	18.6	0.076	0.0106	0.0358	<0.0010	<0.0010	0.0049
Creek 661	661-01	Surface	Primary	VA23C4014-004	10/5/2023	7.34	41.3	17	16.2	36	<3.0	0.15	2.5	22.2	0.08	<0.0050	0.0133	<0.0010	<0.0010	0.0031
Creek 661	661-01	Surface	Primary	VA23C0875-002	9/4/2023	7.28	38.2	15.1	15	38	<3.0	<0.10	2.3	18.5	0.164	<0.0050	0.0146	<0.0010	<0.0010	0.0038
Creek 661	661-01	Surface	Primary	VA23B8906-006	8/15/2023	7.31	37.3	15	15	31	<3.0	0.15	2	17.5	0.137	<0.0050	0.0123	<0.0010	<0.0010	0.0043
Creek 661	661-01	Surface	Primary	VA23B7523-004	7/27/2023	6.76	31.2	12.9	13	25	<3.0	0.4	2	14.7	0.157	<0.0050	<0.0050	<0.0010	<0.0010	0.0094
Creek 661	661-01	Surface	Primary	VA23B3687-001	6/14/2023	6.83	26.6	10.4	10.2	35	<3.0	0.17	2	12.3	0.147	<0.0050	<0.0050	<0.0010	<0.0010	0.0053
Creek 661	661-01	Surface	Primary	VA23B2847-004	6/6/2023	7.03	22.8	8.78	8.97	35	<3.0	0.21	2.5	9.1	0.227	<0.0050	<0.0050	<0.0010	<0.0010	0.0062
Creek 661	661-01	Surface	Primary	VA23B2224-001	5/31/2023	7.26	22	7.94	8.37	37	<3.0	0.27	2.4	9.4	0.207	<0.0050	<0.0050	<0.0010	<0.0010	0.0087
Creek 661	661-01	Surface	Primary	VA23B1379-001	5/22/2023	6.92	19.1	7.28	7.51	40	<3.0	0.4	3	7.4	0.272	<0.0050	<0.0050	<0.0010	<0.0010	0.0092
Creek 661	661-01	Surface	Duplicate	VA23B1379-002	5/22/2023	6.91	19	7.27	7.52	38	<3.0	0.38	2.9	7.3	0.258	0.0051	<0.0050	<0.0010	<0.0010	0.009
Creek 661	661-01	Surface	Primary	VA23B0766-007	5/16/2023	6.85	16.7	6.43	6.53	44	<3.0	0.6	3.1	5.6	0.215	<0.0050	<0.0050	<0.0010	<0.0010	0.0132
Creek 661	661-01	Surface	Primary	VA23A8158-006	4/14/2023	7.11	29.7	10.6	10.7	28	<3.0	0.44	2.6	13.6	0.1	<0.0050	0.07	<0.0010	<0.0010	0.0032
Creek 661	661-01	Surface	Primary	VA23A6844-007	3/28/2023	7.2	28.8	10.6	10.6	28	<3.0	0.38	2.7	12	0.106	<0.0050	0.0668	<0.0010	0.0015	0.0063
Creek 661	661-01	Surface	Primary	VA23A4552-001	2/28/2023	7.12	27.7	10	10.5	26	<3.0	0.28	2.9	12.6	0.133	<0.0050	0.0569	<0.0010	0.0016	0.0052
Creek 661	661-01	Surface	Primary	VA23A1264-005	1/17/2023	6.85	23.1	8.06	8.23	38	<3.0	0.58	2.7	9.7	0.125	<0.0050	0.0103	<0.0010	0.0011	0.004
Creek 661	661-04	Surface	Primary	VA23C9661-003	12/7/2023	7.81	90.4	39.1	36.9	66	<3.0	0.28	2	42.9	<0.050	<0.0050	0.0052	<0.0010	0.0111	0.0168
Creek 661	661-04	Surface	Primary	VA23C7190-009	11/9/2023	7.61	82.8	32.6	34.1	71	<3.0	0.28	<2.0	37	0.066	<0.0050	<0.0050	<0.0010	0.0106	0.0162
Creek 661	661-04	Surface	Primary	VA23C6383-002	10/31/2023	7.7	88.4	36.1	36.1	57	<3.0	0.32	<2.0	43.2	0.055	<0.0050	<0.0050	<0.0010	0.0095	0.0152
Creek 661	661-04	Surface	Primary	VA23C5894-002	10/25/2023	7.79	90.9	37.6	39.3	57	<3.0	0.34	<2.0	42.4	0.094	<0.0050	<0.0050	<0.0010	0.009	0.0159
Creek 661	661-04	Surface	Primary	VA23C4858-002	10/16/2023	7.82	86.6	37.5	35.7	56	<3.0	0.32	2.2	43	0.056	<0.0050	<0.0050	<0.0010	0.0088	0.0211
Creek 661	661-04	Surface	Primary	VA23C4586-004	10/14/2023	7.63	87	35.6	35.7	56	<3.0	0.25	2.3	41.4	0.06	0.013	<0.0050	<0.0010	0.0066	0.0147
Creek 661	661-04	Surface	Primary	VA23C4014-005	10/5/2023	7.7	84.1	37	34.8	64	<3.0	0.32	<2.0	42	0.067	<0.0050	<0.0050	<0.0010	0.0098	0.0157
Creek 661	661-04	Surface	Primary	VA23C1991-004	9/14/2023	7.82	85.5	35.9	37.1	72	<3.0	0.31	<2.0	43.7	0.069	<0.0050	<0.0050	<0.0010	0.0089	0.0145
Creek 661	661-04	Surface	Primary	VA23B8906-005	8/14/2023	7.71	81.3	34.4	34.4	66	<3.0	0.29	2	37.9	0.144	<0.0050	<0.0050	<0.0010	0.0103	0.0165
Creek 661	661-04	Surface	Primary	VA23B3687-002	6/14/2023	7.09	58	24.2	24	61	<3.0	0.28	<2.0	30.1	0.125	<0.0050	<0.0050	<0.0010	0.0086	0.0163
Creek 661	661-04	Surface	Duplicate	VA23B3687-003	6/14/2023	7.13	57.6	24.1	23.9	59	<3.0	0.28	2	30.3	0.12	<0.0050	<0.0050	<0.0010	0.008	0.0161
Creek 661	661-04	Surface	Primary	VA23B2847-005	6/6/2023	7.39	50.9	20.7	21.5	51	<3.0	0.25	2.4	23.3	0.132	<0.0050	<0.0050	<0.0010	0.01	0.0142
Creek 661	661-04	Surface	Primary	VA23B2224-002	5/31/2023	7.59	46.6	18.4	19.4	44	<3.0	0.25	2.3	19.3	0.164	0.006	<0.0050	<0.0010	0.0091	0.013
Creek 661	661-04	Surface	Primary	VA23B1379-004	5/22/2023	7.19	37.7	15.6	15.9	45	<3.0	0.44	2.9	13.6	0.218	<0.0050	<0.0050	<0.0010	0.0063	0.0193
Creek 661	661-04	Surface	Primary	VA23B0766-008	5/16/2023	7.11	30.9	12.2	12.7	52	3.3	0.65	3.1	9.3	0.205	<0.0050	<0.0050	<0.0010	0.0058	0.023
Creek 661	661-04	Surface	Primary	VA23A8158-007	4/14/2023	7.72	85.8	34.7	34.8	56	<3.0	0.26	2.2	40.9	0.052	<0.0050	0.0102	<0.0010	0.0102	0.0138
Creek 661	661-04	Surface	Primary	VA23A6844-008	3/28/2023	7.77	84.6	35.5	35.1	57	<3.0	0.36	2.1	40.7	<0.050	<0.0050	0.0105	<0.0010	0.0127	0.0142
Creek 661	661-04	Surface	Primary	VA23A3268-009	2/9/2023	7.69	80.4	31.4	32.4	57	<3.0	0.25	<2.0	38.4	<0.050	<0.0050	0.0113	<0.0010	0.0119	0.0145
Creek 661	661-04	Surface	Primary	VA23A1264-004	1/17/2023	7.7	81.6	33.2	33.1	72	<3.0	0.34	2.2	40.1	<0.050	<0.0050	0.0093	<0.0010	0.0123	0.0146
Creek 661	661-05	Surface	Primary	VA23C9238-004	12/4/2023	7.92	104	44.6	45.4	76	<3.0	6.07	<2.0	52.8	0.063	0.0086	0.0496	<0.0010	0.0403	0.0632
Creek 661	661-05	Surface	Primary	VA23C7190-005	11/8/2023	7.78	95.8	41.4	45.7	100	4.8	45.5	<2.0	48.7	0.128	<0.0050	0.0347	<0.0010	0.037	0.0893
Creek 661	661-05	Surface	Duplicate	VA23C7190-006	11/8/2023	7.79	96.5	41.6	45.5	115	<3.0	44.9	<2.0	49.2	0.126	<0.0050	0.0352	<0.0010	0.0362	0.0915
Creek 661	661-05	Surface	Primary	VA23C4865-004	10/16/2023	7.96	107	45.3	44.2	60	<3.0	1.04	2	55.2	<0.050	<0.0050	0.0167	0.0045	0.0325	0.0523

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Physical Tests									Anions and Nutrients					
						pH	Conductivity	Hardness (as $CaCO_3$)-Dissolved	Hardness (as $CaCO_3$)-Total	Total Dissolved Solids	Total Suspended Solids	Turbidity	Acidity (as $CaCO_3$)	Alkalinity, Total (as $CaCO_3$)	Total Kjeldahl Nitrogen	Ammonia, Total (as N)	Nitrate (as N)	Nitrite (as N)	Orthophosphate-Dissolved (as P)	Total Phosphate (as P)
						pH units	µS/cm	mg/L	mg/L	mg/L	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Creek 661	661-05	Surface	Primary	VA23C1491-002	9/11/2023	7.84	103	44.8	46.6	69	<3.0	0.92	<2.0	54	0.082	<0.0050	<0.0050	<0.0010	0.0369	0.0492
Creek 661	661-05	Surface	Primary	VA23B9219-005	8/16/2023	7.89	94.6	42.2	45.3	73	<3.0	1.06	<2.0	51.4	0.13	<0.0050	<0.0050	0.0011	0.0376	0.0499
Creek 661	661-05	Surface	Primary	VA23B7293-010	7/25/2023	7.76	79.7	36.4	35.5	76	4.8	1.7	2.1	40.4	0.205	<0.0050	<0.0050	<0.0010	0.0298	0.048
Creek 661	661-05	Surface	Primary	VA23B4181-001	6/21/2023	7.67	70.7	33.3	31.8	45	<3.0	0.54	2	36.2	0.207	0.0074	<0.0050	<0.0010	0.024	0.0351
Creek 661	661-05	Surface	Primary	VA23B0766-005	5/15/2023	7.54	48.4	20.6	21.3	65	7.3	1.81	2.5	23.3	0.219	<0.0050	0.0111	<0.0010	0.0167	0.0385
Creek 661	661-05	Surface	Primary	VA23A9322-001	4/27/2023	7.96	90.8	38.7	38	59	5.8	2.04	2.1	51	0.146	<0.0050	0.0343	<0.0010	0.0371	0.0592
Creek 661	661-05	Surface	Primary	VA23A5821-001	3/15/2023	7.89	102	42.9	43.5	70	<3.0	0.79	<2.0	52.3	<0.050	<0.0050	0.0573	<0.0010	0.0414	0.05
Creek 661	661-05	Surface	Primary	VA23A2670-001	2/4/2023	7.86	103	42	44.6	74	3.2	0.98	<2.0	52.7	0.058	<0.0050	0.0571	<0.0010	0.0407	0.0485
Creek 661	661-05	Surface	Primary	VA23A1491-003	1/19/2023	7.61	101	43.8	44.2	84	<3.0	0.79	2.1	52.4	0.055	<0.0050	0.0512	<0.0010	0.042	0.0494
Creek 661	661-03	Surface	Primary	VA23C9238-001	12/4/2023	7.71	90.7	41.3	40.7	73	<3.0	0.55	2.1	45.4	0.199	0.0079	0.0475	<0.0010	0.0013	0.0067
Creek 661	661-03	Surface	Primary	VA23C6622-002	11/2/2023	7.75	113	49.9	51.4	82	<3.0	0.48	<2.0	60.5	0.094	<0.0050	0.0155	<0.0010	<0.0010	0.0038
Creek 661	661-03	Surface	Primary	VA23C5577-001	10/23/2023	7.67	98	47	45.6	82	<3.0	0.59	2.6	50.6	0.145	<0.0050	0.005	<0.0010	<0.0010	0.0034
Creek 661	661-03	Surface	Primary	VA23C4865-003	10/16/2023	8.03	141	62.6	62.3	78	<3.0	0.35	<2.0	73.1	<0.050	<0.0050	0.0089	<0.0010	<0.0010	0.0039
Creek 661	661-03	Surface	Primary	VA23C4279-004	10/10/2023	7.86	136	61.7	63.2	98	8	0.87	<2.0	73	0.281	0.0071	0.0089	<0.0010	<0.0010	0.0109
Creek 661	661-03	Surface	Duplicate	VA23C4279-005	10/10/2023	7.87	135	61.6	64.2	94	8.6	0.88	2.6	73.4	0.384	0.0099	0.005	<0.0010	<0.0010	0.013
Creek 661	661-03	Surface	Primary	VA23C3847-004	10/3/2023	7.95	134	62.8	64.3	97	75.1	11.2	<2.0	73.5	0.168	<0.0050	<0.0050	<0.0010	<0.0010	0.007
Creek 661	661-03	Surface	Primary	VA23C1491-001	9/11/2023	7.65	133	61	63.1	80	16.4	1.02	2.7	71.3	0.076	<0.0050	<0.0050	<0.0010	<0.0010	0.0053
Creek 661	661-03	Surface	Primary	VA23B9359-002	8/17/2023	7.72	111	51	50.6	90	<3.0	0.29	2.4	57.2	0.18	<0.0050	0.0101	<0.0010	0.0018	0.0078
Creek 661	661-03	Surface	Primary	VA23B7293-003	7/25/2023	7.7	85.2	40.6	40.7	92	<3.0	0.43	2.5	44	0.229	<0.0050	<0.0050	<0.0010	<0.0010	0.0071
Creek 661	661-03	Surface	Primary	VA23B3987-002	6/19/2023	7.75	80.4	39.2	40.3	74	<3.0	0.43	2.1	43.9	0.276	<0.0050	0.0164	<0.0010	<0.0010	0.0125
Creek 661	661-03	Surface	Primary	VA23B2052-002	5/29/2023	7.66	64.5	29.9	29.1	68	<3.0	0.22	3	32.7	0.315	0.0054	0.0139	<0.0010	<0.0010	0.0094
Creek 661	661-03	Surface	Primary	VA23B1529-001	5/23/2023	7.35	57.2	25.8	26.9	53	<3.0	0.24	3.2	28.2	0.336	0.0101	0.023	<0.0010	<0.0010	0.0072
Creek 661	661-03	Surface	Primary	VA23B0766-004	5/15/2023	7.55	54.2	24.6	24.9	74	<3.0	0.81	2.7	26	0.345	0.0084	0.0358	<0.0010	<0.0010	0.0134
Creek 661	661-03	Surface	Primary	VA23B0222-001	5/9/2023	7.22	43.2	20.7	20.3	78	3.4	0.72	2.7	16.7	0.497	<0.0050	0.005	<0.0010	0.0016	0.0209
Creek 661	661-03	Surface	Duplicate	VA23B0222-002	5/9/2023	7.21	42.4	20.6	20.5	71	7	0.97	2.6	16.9	0.517	0.0052	<0.0050	<0.0010	<0.0010	0.0208
Creek 661	661-03	Surface	Primary	VA23A9531-006	5/1/2023	7.05	49.8	22.6	22.6	81	15.1	3.04	3.1	23.1	0.636	0.0069	0.025	<0.0010	0.001	0.0339
Creek 661	661-03	Surface	Primary	VA23A8011-002	4/12/2023	7.7	84.8	35.9	36.9	76	<3.0	0.45	2.2	41.9	0.169	<0.0050	0.0313	<0.0010	0.001	0.006
Creek 661	661-03	Surface	Primary	VA23A5501-001	3/13/2023	7.76	93.5	40.1	42.1	78	<3.0	0.7	2.5	47.4	0.186	<0.0050	0.0443	<0.0010	0.0042	0.0078
Creek 661	661-03	Surface	Primary	VA23A2712-002	2/1/2023	7.42	79	34.2	35.5	69	<3.0	0.8	3.5	37	0.319	0.0084	0.0987	<0.0010	0.0016	0.0103
Creek 661	661-10	Surface	Primary	VA23C9238-002	12/4/2023	7.71	86.8	36.9	36.4	67	<3.0	1.26	<2.0	41.5	0.102	0.0091	0.0242	<0.0010	0.0092	0.0181
Creek 661	661-10	Surface	Primary	VA23C6622-001	11/2/2023	7.72	85.7	35	36.1	73	<3.0	0.92	<2.0	43.9	0.097	<0.0050	0.0112	<0.0010	0.0081	0.015
Creek 661	661-10	Surface	Primary	VA23C5577-002	10/23/2023	7.67	79.4	35.7	34.9	72	<3.0	0.78	<2.0	38.1	0.13	<0.0050	<0.0050	<0.0010	0.0075	0.0147
Creek 661	661-10	Surface	Duplicate	VA23C5577-003	10/23/2023	7.66	79.3	35.4	33.8	71	<3.0	0.77	<2.0	38.2	0.155	<0.0050	<0.0050	<0.0010	0.0073	0.0159
Creek 661	661-10	Surface	Primary	VA23C4865-005	10/16/2023	7.79	82	33.9	34.8	56	<3.0	0.76	2.2	40.5	0.135	<0.0050	<0.0050	<0.0010	0.0031	0.0225
Creek 661	661-10	Surface	Primary	VA23C4279-003	10/10/2023	7.66	81.2	34.8	36.6	68	<3.0	0.68	<2.0	41.4	0.169	<0.0050	<0.0050	<0.0010	0.0047	0.0237
Creek 661	661-10	Surface	Primary	VA23C3847-003	10/3/2023	7.72	80.8	35.6	35.7	70	<3.0	0.68	<2.0	41.4	0.14	<0.0050	<0.0050	<0.0010	0.0044	0.0192
Creek 661	661-10	Surface	Primary	VA23C0875-001	9/4/2023	7.6	81.7	35	35.6	81	<3.0	0.65	2.5	40.9	0.183	<0.0050	<0.0050	<0.0010	0.0119	0.0257
Creek 661	661-10	Surface	Primary	VA23B9359-001	8/17/2023	7.63	79.4	32.6	34.5	72	<3.0	0.88	2	39.6	0.194	<0.0050	0.0098	<0.0010	0.0172	0.0311
Creek 661	661-10	Surface	Primary	VA23B7293-001	7/25/2023	7.63	69.7	30.5	30.8	74	4.2	1.01	2.5	30.7	0.204	0.0077	<0.0050	<0.0010	0.0088	0.0241
Creek 661	661-10	Surface	Primary	VA23B3987-001	6/19/2023	7.59	52.7	23.4	23.6	57	3.1	2.08	2.1	27	0.202	<0.0050	<0.0050	<0.0010	0.0067	0.0223
Creek 661	661-10	Surface	Primary	VA23B2052-001	5/29/2023	7.45	42.8	18.3	17.4	50	<3.0	0.72	2.4	17.8	0.198	<0.0050	<0.0050	<0.0010	0.0047	0.0161
Creek 661	661-10	Surface	Primary	VA23B1529-002	5/23/2023	7.25	36.1	14.6	15.2	38	4.6	1.04	2.8	14.2	0.263	0.005	<0.0050	<0.0010	0.0038	0.0201
Creek 661	661-10	Surface	Primary	VA23B0766-003	5/15/2023	7.17	29.2	12.1	12.5	54	12.1	1.19	2.8	10.1	0.257	<0.0050	<0.0050	<0.0010	0.0042	0.0218
Creek 661	661-10	Surface	Primary	VA23B0222-003	5/9/2023	7.01	28.4	12.3	12.3	50	25	4.42	2.7	9.4	0.483	0.007	0.0053	<0.0010	0.0044	0.0371
Creek 661	661-10	Surface	Primary	VA23A9531-001	5/1/2023	7.19	58.5	24.6	25.3	75	17.7	6.9	3	24.8	0.503	0.0084	0.127	<0.0010	0.0115	0.0626
Creek 661	661-10	Surface	Primary	VA23A8011-001	4/12/2023	7.79	92.9	36.3	37.6	73	<3.0	0.39	<2.0	45.3	0.065	<0.0050	0.0255	<0.0010	0.0189	0.0223

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Physical Tests									Anions and Nutrients					
						pH	Conductivity	Hardness (as $CaCO_3$)-Dissolved	Hardness (as $CaCO_3$)-Total	Total Dissolved Solids	Total Suspended Solids	Turbidity	Acidity (as $CaCO_3$)	Alkalinity, Total (as $CaCO_3$)	Total Kjeldahl Nitrogen	Ammonia, Total (as N)	Nitrate (as N)	Nitrite (as N)	Orthophosphate-Dissolved (as P)	Total Phosphate (as P)
						pH units	µS/cm	mg/L	mg/L	mg/L	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Creek 661	661-10	Surface	Duplicate	VA23A8011-005	4/12/2023	7.82	98.1	36.3	37.4	64	<3.0	0.34	2.2	44.7	0.069	<0.0050	0.026	<0.0010	0.0171	0.0226
Creek 661	661-10	Surface	Primary	VA23A5501-002	3/13/2023	7.85	93.6	37.9	38.8	62	<3.0	0.52	2.2	46.6	0.067	<0.0050	0.0426	<0.0010	0.0232	0.0256
Creek 661	661-10	Surface	Primary	VA23A2712-001	2/1/2023	7.65	87.5	35.8	37.7	74	<3.0	0.43	2.6	44.6	0.086	<0.0050	0.0372	<0.0010	0.0186	0.0235
Creek 661	661-10	Surface	Primary	VA23A0821-002	1/11/2023	7.69	87	36.2	38.9	58	<3.0	0.97	3.4	43.4	0.101	0.0062	0.0445	<0.0010	0.0202	0.0281
Creek 661	661-20	Surface	Primary	VA23C6622-005	11/2/2023	8.09	156	72.6	71.6	86	<3.0	0.63	<2.0	82.9	0.068	<0.0050	0.0203	<0.0010	0.0191	0.0232
Creek 661	661-20	Surface	Duplicate	VA23C6622-006	11/2/2023	8.09	156	73.1	70.4	97	<3.0	0.63	<2.0	82.3	0.062	<0.0050	0.0202	<0.0010	0.0183	0.0232
Creek 661	661-20	Surface	Primary	VA23C0762-004	8/31/2023	8.07	157	72.4	72.9	95	<3.0	0.48	<2.0	83.9	0.143	0.0123	0.0064	<0.0010	0.0197	0.0293
Creek 661	661-20	Surface	Primary	VA23B7293-004	7/25/2023	8.01	130	61	62.6	127	4.2	1.68	<2.0	67.2	0.201	<0.0050	<0.0050	<0.0010	0.0141	0.0297
Creek 661	661-20	Surface	Primary	VA23B3987-003	6/19/2023	8.05	122	59.6	59.5	90	<3.0	1.31	<2.0	67	0.158	<0.0050	<0.0050	<0.0010	0.0157	0.0271
Creek 661	661-20	Surface	Primary	VA23A9531-002	5/1/2023	7.58	80.9	36.5	37.6	89	40.3	13.2	2.6	37.5	0.66	0.0068	0.254	0.0015	0.0094	0.0779
Creek 661	661-20	Surface	Primary	VA23A8011-004	4/12/2023	8.03	136	63.7	60.6	92	<3.0	1.28	<2.0	70.1	0.146	<0.0050	0.0158	<0.0010	0.0186	0.0331
Creek 661	661-20	Surface	Primary	VA23A5501-003	3/13/2023	8.1	147	63.4	64.9	89	<3.0	0.44	<2.0	75.5	0.067	<0.0050	0.0517	<0.0010	0.0227	0.0243
Creek 661	661-20	Surface	Primary	VA23A2670-002	2/4/2023	8.03	140	60.1	63.9	91	<3.0	0.76	<2.0	71.5	0.1	<0.0050	0.0489	<0.0010	0.0209	0.025
Creek 661	661-20	Surface	Primary	VA23A0821-003	1/11/2023	8.01	149	64.6	69.8	94	<3.0	0.61	2.4	76.5	0.088	0.0072	0.0783	<0.0010	0.0233	0.0284
Creek 661	661-20	Surface	Duplicate	VA23A0821-004	1/11/2023	8.01	149	66.2	71.4	96	<3.0	0.64	2.5	76.2	0.085	0.0075	0.0782	<0.0010	0.0234	0.0287
Chedakuz Creek	CC-03	Surface	Primary	VA23C9238-003	12/4/2023	8.3	251	120	120	156	<3.0	0.71	<2.0	126	0.082	<0.0050	0.0552	<0.0010	0.0122	0.0196
Chedakuz Creek	CC-03	Surface	Primary	VA23C6622-003	11/2/2023	8.23	252	123	120	162	<3.0	0.89	<2.0	134	0.076	<0.0050	0.0415	<0.0010	0.0102	0.0153
Chedakuz Creek	CC-03	Surface	Primary	VA23C5577-004	10/23/2023	8.19	236	126	117	156	<3.0	0.44	<2.0	122	0.121	<0.0050	0.0115	<0.0010	0.0084	0.0157
Chedakuz Creek	CC-03	Surface	Primary	VA23C4865-001	10/16/2023	8.32	248	116	118	131	<3.0	0.49	<2.0	129	0.097	<0.0050	0.0072	<0.0010	0.0039	0.0187
Chedakuz Creek	CC-03	Surface	Primary	VA23C4279-001	10/10/2023	8.24	246	117	118	157	<3.0	0.41	<2.0	129	0.156	0.0108	0.0073	<0.0010	0.0031	0.016
Chedakuz Creek	CC-03	Surface	Primary	VA23C3847-001	10/3/2023	8.33	244	122	123	166	<3.0	0.44	<2.0	132	0.117	<0.0050	<0.0050	<0.0010	0.0028	0.0155
Chedakuz Creek	CC-03	Surface	Primary	VA23C1491-003	9/11/2023	8.21	266	123	119	135	<3.0	0.51	<2.0	129	0.157	0.0055	0.0145	<0.0010	0.0123	0.0214
Chedakuz Creek	CC-03	Surface	Primary	VA23C0762-002	8/31/2023	8.22	233	113	111	152	<3.0	0.61	<2.0	125	0.209	0.0192	0.0409	<0.0010	0.0147	0.0259
Chedakuz Creek	CC-03	Surface	Primary	VA23B7293-005	7/25/2023	8.22	206	103	104	170	<3.0	0.95	<2.0	108	0.215	0.0056	<0.0050	<0.0010	0.0109	0.0236
Chedakuz Creek	CC-03	Surface	Primary	VA23B3987-004	6/19/2023	8.23	192	99.6	98.2	139	<3.0	0.7	<2.0	104	0.23	<0.0050	<0.0050	<0.0010	0.0112	0.0214
Chedakuz Creek	CC-03	Surface	Primary	VA23B2052-003	5/29/2023	8.04	153	75.6	73	106	7.1	1.99	<2.0	78.8	0.46	0.0123	0.0356	0.0019	0.0086	0.0298
Chedakuz Creek	CC-03	Surface	Primary	VA23B1529-003	5/23/2023	8	145	68	68	73	3.6	1.26	<2.0	73.2	0.454	0.0156	0.0315	0.0022	0.0049	0.0243
Chedakuz Creek	CC-03	Surface	Primary	VA23B0766-001	5/15/2023	7.99	128	59.9	62.6	104	8.9	2.95	<2.0	63.8	0.446	0.0185	0.0344	0.0034	0.0052	0.0318
Chedakuz Creek	CC-03	Surface	Primary	VA23B0222-004	5/9/2023	7.8	90.4	43	43.4	70	9.4	2.28	<2.0	46.3	0.482	0.0197	0.0258	0.0015	0.0038	0.0316
Chedakuz Creek	CC-03	Surface	Primary	VA23A9531-004	5/1/2023	7.64	97.2	45.4	47.1	91	21.7	7.18	2.5	45.7	0.584	0.0271	0.0465	0.0012	0.0066	0.0602
Chedakuz Creek	CC-03	Surface	Duplicate	VA23A9531-005	5/1/2023	7.66	98.3	45.1	46.3	92	19.5	8.31	2.3	46.9	0.587	0.0258	0.0489	<0.0010	0.0069	0.0608
Chedakuz Creek	CC-03	Surface	Primary	VA23A8011-003	4/12/2023	8.15	198	88.1	87.3	119	<3.0	1.09	2.3	96	0.287	0.0178	0.0898	0.0014	0.0079	0.0217
Chedakuz Creek	CC-03	Surface	Primary	VA23A5501-004	3/13/2023	8.21	206	95.4	96.9	124	<3.0	0.7	<2.0	109	0.273	0.0294	0.157	0.0011	0.0115	0.0156
Chedakuz Creek	CC-03	Surface	Duplicate	VA23A5501-005	3/13/2023	8.2	206	96.1	98.5	139	<3.0	0.68	<2.0	110	0.256	0.0288	0.157	0.0012	0.0113	0.0156
Chedakuz Creek	CC-03	Surface	Primary	VA23A2712-003	2/1/2023	8.12	199	91.1	95.1	119	<3.0	0.62	<2.0	107	0.309	0.0796	0.127	0.0046	0.0104	0.0162
Chedakuz Creek	CC-03	Surface	Primary	VA23A0821-001	1/11/2023	8.13	205	97.7	108	123	<3.0	1.04	3.2	106	0.316	0.0802	0.11	0.0022	0.0113	0.0198
Chedakuz Creek	CC-05	Surface	Primary	VA23C6622-004	11/2/2023	8.18	198	92.9	90.1	109	<3.0	0.78	<2.0	107	0.092	<0.0050	0.0309	<0.0010	0.0142	0.0206
Chedakuz Creek	CC-05	Surface	Primary	VA23C5577-005	10/23/2023	8.13	189	96.3	87.4	132	<3.0	0.49	<2.0	97.2	0.111	<0.0050	<0.0050	<0.0010	0.0159	0.0193
Chedakuz Creek	CC-05	Surface	Primary	VA23C4865-002	10/16/2023	8.26	201	92.6	96.3	105	<3.0	0.69	<2.0	107	0.112	<0.0050	<0.0050	<0.0010	0.009	0.024
Chedakuz Creek	CC-05	Surface	Primary	VA23C4279-002	10/10/2023	8.16	195	92.3	92.9	126	<3.0	0.4	<2.0	105	0.14	0.0056	<0.0050	<0.0010	0.0061	0.0228
Chedakuz Creek	CC-05	Surface	Primary	VA23C3847-002	10/3/2023	8.25	199	96.6	97.3	132	<3.0	0.34	<2.0	110	0.105	<0.0050	<0.0050	<0.0010	0.0059	0.019
Chedakuz Creek	CC-05	Surface	Primary	VA23C0762-001	8/31/2023	8.23	195	92.2	92.6	128	<3.0	0.53	<2.0	106	0.196	0.0136	0.0334	<0.0010	0.0171	0.0294
Chedakuz Creek	CC-05	Surface	Duplicate	VA23C0762-003	8/31/2023	8.25	194	94.3	94.6	118	<3.0	0.62	<2.0	107	0.195	0.0128	0.0326	<0.0010	0.0178	0.0324
Chedakuz Creek	CC-05	Surface	Primary	VA23B2052-004	5/29/2023	8.01	139	66.2	64.5	98	5.5	1.64	<2.0	69.3	0.394	0.0122	0.0209	<0.0010	0.0072	0.0247
Chedakuz Creek	CC-05	Surface	Primary	VA23B1529-004	5/23/2023	7.96	125	58.8	57.8	70	13.2	2.15	<2.0	62.9	0.393	0.0114	0.0196	0.0012	0.0055	0.0271
Chedakuz Creek	CC-05	Surface	Primary	VA23B0766-002	5/15/2023	7.84	91.9	42.2	43.8	89	12.9	4.72	2.2	44.7	0.372	0.01	0.02	0.0016	0.0055	0.0291

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Physical Tests									Anions and Nutrients					
						pH	Conductivity	Hardness (as $CaCO_3$)-Dissolved	Hardness (as $CaCO_3$)-Total	Total Dissolved Solids	Total Suspended Solids	Turbidity	Acidity (as $CaCO_3$)	Alkalinity, Total (as $CaCO_3$)	Total Kjeldahl Nitrogen	Ammonia, Total (as N)	Nitrate (as N)	Nitrite (as N)	Orthophosphate-Dissolved (as P)	Total Phosphate (as P)
						pH units	µS/cm	mg/L	mg/L	mg/L	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Chedakuz Creek	CC-05	Surface	Primary	VA23B0222-005	5/9/2023	7.59	65.7	30.7	31.1	62	20.8	4.89	2.4	31.9	0.512	0.0095	0.0206	<0.0010	0.0046	0.0392
Chedakuz Creek	CC-05	Surface	Primary	VA23A9531-003	5/1/2023	7.62	92.1	42	45.2	97	33.9	9.94	2.4	43.4	0.616	0.0175	0.111	0.0013	0.0074	0.071
Chedakuz Creek	CC-05	Surface	Primary	VA23A2712-004	2/1/2023	8.07	176	80.6	82	112	<3.0	0.82	<2.0	92.5	0.217	0.0451	0.105	0.0031	0.0142	0.0195
Chedakuz Creek	CC-10	Surface	Primary	VA23C6498-005	11/1/2023	8.11	150	65	69.4	80	<3.0	0.28	<2.0	73.9	0.277	<0.0050	0.0307	<0.0010	0.005	0.0144
Chedakuz Creek	CC-10	Surface	Primary	VA23B9219-006	8/16/2023	8.18	137	67.1	69.4	91	<3.0	0.44	<2.0	70.3	0.291	<0.0050	<0.0050	<0.0010	<0.0010	0.011
Chedakuz Creek	CC-10	Surface	Primary	VA23B0508-006	5/11/2023	8.01	140	61	64.3	107	48.9	6.05	<2.0	68.7	1.19	0.0113	<0.0050	<0.0010	0.0014	0.0789
Chedakuz Creek	CC-10	Surface	Primary	VA23A3177-008	2/8/2023	7.95	152	69.3	70.6	101	<3.0	0.31	<2.0	75.8	0.269	<0.0050	0.0911	<0.0010	0.0154	0.0228
Chedakuz Creek	CC-15	Surface	Primary	VA23C9626-003	12/6/2023	7.83	143	61.1	63.3	88	<3.0	1.31	<2.0	71.8	0.191	0.0061	0.0486	<0.0010	0.0069	0.0169
Chedakuz Creek	CC-15	Surface	Primary	VA23C6498-004	11/1/2023	8.06	148	63.2	66.7	89	<3.0	1.18	<2.0	72.8	0.244	<0.0050	0.0186	<0.0010	0.0042	0.0179
Chedakuz Creek	CC-15	Surface	Primary	VA23C5771-003	10/24/2023	7.99	146	70.4	63	86	<3.0	1.34	<2.0	71.3	0.239	0.0081	<0.0050	<0.0010	0.0021	0.015
Chedakuz Creek	CC-15	Surface	Primary	VA23C5184-004	10/20/2023	7.81	135	68.1	70.2	83	3	1.32	<2.0	68.7	0.265	0.0056	0.0056	<0.0010	<0.0010	0.014
Chedakuz Creek	CC-15	Surface	Primary	VA23C4458-002	10/11/2023	8.08	142	67.3	67.3	79	<3.0	0.98	<2.0	71.1	0.285	0.0085	<0.0050	<0.0010	<0.0010	0.0141
Chedakuz Creek	CC-15	Surface	Primary	VA23C3871-002	10/4/2023	8	140	65.1	69.3	84	3.1	0.87	<2.0	71.1	0.22	0.0086	<0.0050	<0.0010	<0.0010	0.0129
Chedakuz Creek	CC-15	Surface	Primary	VA23C2546-004	9/20/2023	8.12	136	65.2	65.1	83	<3.0	1.33	<2.0	71.9	0.253	0.0065	<0.0050	<0.0010	0.0023	0.0194
Chedakuz Creek	CC-15	Surface	Primary	VA23B9868-004	8/23/2023	7.85	131	62	62.4	88	5.3	1.83	<2.0	67	0.281	0.0094	<0.0050	<0.0010	<0.0010	0.0208
Chedakuz Creek	CC-15	Surface	Primary	VA23B7734-006	7/31/2023	7.96	126	60.2	60.6	94	<3.0	1.25	<2.0	59	0.228	0.008	<0.0050	<0.0010	0.0014	0.0157
Chedakuz Creek	CC-15	Surface	Primary	VA23B2847-002	6/6/2023	7.89	129	60.7	63.2	99	4.7	2.19	<2.0	63.3	0.331	0.0091	<0.0050	<0.0010	<0.0010	0.0204
Chedakuz Creek	CC-15	Surface	Primary	VA23B2219-005	5/30/2023	7.96	124	57.3	58.9	78	<3.0	0.69	<2.0	64.5	0.306	0.0088	0.0125	0.0014	0.0025	0.0177
Chedakuz Creek	CC-15	Surface	Primary	VA23B1690-003	5/24/2023	7.91	112	53.2	57	98	8.8	1.71	<2.0	57.1	0.268	0.0065	<0.0050	<0.0010	<0.0010	0.0193
Chedakuz Creek	CC-15	Surface	Primary	VA23B1108-004	5/17/2023	7.91	102	46.8	51.9	70	18.6	2.76	2	50.5	0.382	0.0071	<0.0050	<0.0010	<0.0010	0.0224
Chedakuz Creek	CC-15	Surface	Primary	VA23B0508-003	5/11/2023	7.84	98.2	45.6	45.2	88	15.3	3.76	<2.0	48.5	0.351	0.006	<0.0050	<0.0010	0.0012	0.0306
Chedakuz Creek	CC-15	Surface	Duplicate	VA23B0508-007	5/11/2023	7.85	99.2	44.9	44.6	89	13.7	3.79	2	47.6	0.347	0.0061	<0.0050	<0.0010	0.001	0.0343
Chedakuz Creek	CC-15	Surface	Primary	VA23A9782-002	5/3/2023	7.64	88.4	42.9	43.1	81	49.6	7.26	<2.0	39.9	0.491	0.0097	<0.0050	<0.0010	0.0022	0.0615
Chedakuz Creek	CC-15	Surface	Primary	VA23A9207-002	4/26/2023	8.07	130	58.8	57.4	103	15.1	5.63	2.1	64.4	0.288	0.0177	0.017	<0.0010	0.0044	0.0132
Chedakuz Creek	CC-15	Surface	Primary	VA23A6844-003	3/27/2023	7.93	148	68.2	69.2	94	6.9	4.11	<2.0	73.7	0.23	0.0161	0.0689	<0.0010	0.0082	0.0168
Chedakuz Creek	CC-15	Surface	Primary	VA23A2861-001	2/6/2023	8.01	150	70.8	67.3	94	<3.0	0.79	<2.0	72.6	0.3	0.0071	0.0934	<0.0010	0.0137	0.022
Chedakuz Creek	CC-15	Surface	Primary	VA23A1889-002	1/24/2023	8.07	149	74.1	73.6	119	<3.0	1.4	<2.0	74.3	0.352	0.0082	0.083	0.0013	0.0148	0.0266
Chedakuz Creek	CC-20	Surface	Primary	VA23C9626-002	12/6/2023	7.84	146	62.6	64.4	81	<3.0	1.12	<2.0	73.6	0.18	0.0061	0.0474	<0.0010	0.0052	0.0155
Chedakuz Creek	CC-20	Surface	Primary	VA23C6498-003	11/1/2023	8.09	150	65.3	68.3	88	<3.0	0.72	<2.0	74.8	0.214	<0.0050	0.0174	<0.0010	0.0034	0.0112
Chedakuz Creek	CC-20	Surface	Primary	VA23C5771-004	10/24/2023	8	147	67.7	64.5	78	<3.0	1.07	<2.0	72.9	0.213	0.0058	<0.0050	<0.0010	0.0019	0.013
Chedakuz Creek	CC-20	Surface	Primary	VA23C5184-005	10/20/2023	7.92	140	68.4	70.2	92	<3.0	1.04	<2.0	71.1	0.229	<0.0050	<0.0050	<0.0010	<0.0010	0.013
Chedakuz Creek	CC-20	Surface	Primary	VA23C4458-003	10/11/2023	8.14	143	68.8	68.9	88	<3.0	0.92	<2.0	73.4	0.215	0.0051	<0.0050	<0.0010	<0.0010	0.0124
Chedakuz Creek	CC-20	Surface	Primary	VA23C3871-003	10/4/2023	8.02	142	66.6	70.6	90	<3.0	1.01	<2.0	73.1	0.208	0.0055	<0.0050	<0.0010	<0.0010	0.0118
Chedakuz Creek	CC-20	Surface	Duplicate	VA23C3871-004	10/4/2023	8.04	143	66.3	71.6	84	<3.0	0.95	<2.0	72.6	0.208	0.0067	<0.0050	<0.0010	<0.0010	0.0119
Chedakuz Creek	CC-20	Surface	Primary	VA23C2546-003	9/20/2023	8.12	135	64	66.5	86	<3.0	1.31	<2.0	71.3	0.242	0.008	<0.0050	<0.0010	0.002	0.0196
Chedakuz Creek	CC-20	Surface	Primary	VA23B9868-005	8/23/2023	7.87	135	61.9	63.3	93	<3.0	1.48	2.1	68.3	0.265	0.0069	<0.0050	<0.0010	<0.0010	0.018
Chedakuz Creek	CC-20	Surface	Primary	VA23B7734-007	7/31/2023	7.98	128	61.8	59.5	98	3.6	1.04	<2.0	59.8	0.22	0.0081	<0.0050	<0.0010	0.0027	0.0146
Chedakuz Creek	CC-20	Surface	Primary	VA23B4330-006	6/21/2023	7.99	124	64.9	58.2	104	4.2	1.25	<2.0	61.4	0.292	0.0065	<0.0050	<0.0010	<0.0010	0.013
Chedakuz Creek	CC-20	Surface	Primary	VA23B2219-002	5/30/2023	7.93	121	57.2	57.5	73	3.7	1.51	<2.0	63.7	0.28	0.0062	<0.0050	<0.0010	0.0016	0.0187
Chedakuz Creek	CC-20	Surface	Duplicate	VA23B2219-003	5/30/2023	7.97	124	57	57.9	78	<3.0	1.17	<2.0	65.7	0.26	0.0061	<0.0050	<0.0010	0.0014	0.0196
Chedakuz Creek	CC-20	Surface	Primary	VA23B1690-004	5/24/2023	7.92	112	53.3	54.5	94	10	2.1	<2.0	57.7	0.266	0.0068	<0.0050	<0.0010	<0.0010	0.0239
Chedakuz Creek	CC-20	Surface	Primary	VA23B1108-003	5/17/2023	7.9	102	45.9	50.4	57	17.4	3.42	<2.0	50.7	0.375	0.0077	<0.0050	<0.0010	<0.0010	0.0272
Chedakuz Creek	CC-20	Surface	Primary	VA23B0508-004	5/11/2023	7.85	98.1	45.6	45.7	89	13.5	3.08	2.1	47.5	0.381	0.0072	<0.0050	<0.0010	0.0012	0.0304
Chedakuz Creek	CC-20	Surface	Primary	VA23A9782-003	5/3/2023	7.66	89.9	42.8	42.2	78	49.4	8.92	<2.0	40.5	0.518	0.0094	<0.0050	<0.0010	0.0025	0.0623
Chedakuz Creek	CC-20	Surface	Primary	VA23A9076-002	4/25/2023	7.98	138	61.9	63.3	98	6.5	1.72	2.3	66	0.321	0.0098	0.0268	<0.0010	0.0215	0.028
Chedakuz Creek	CC-20	Surface	Primary	VA23A6844-002	3/27/2023	7.97	150	69.4	70.2	101	<3.0	2.81	2.1	73.3	0.25	0.0116	0.0602	<0.0010	0.0083	0.0272

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Physical Tests									Anions and Nutrients					
						pH	Conductivity	Hardness (as $CaCO_3$)-Dissolved	Hardness (as $CaCO_3$)-Total	Total Dissolved Solids	Total Suspended Solids	Turbidity	Acidity (as $CaCO_3$)	Alkalinity, Total (as $CaCO_3$)	Total Kjeldahl Nitrogen	Ammonia, Total (as N)	Nitrate (as N)	Nitrite (as N)	Orthophosphate-Dissolved (as P)	Total Phosphate (as P)
						pH units	µS/cm	mg/L	mg/L	mg/L	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Chedakuz Creek	CC-20	Surface	Primary	VA23A2861-002	2/6/2023	8.04	159	72.1	67.6	99	<3.0	0.65	<2.0	74.3	0.234	0.0085	0.0881	<0.0010	0.0126	0.021
Chedakuz Creek	CC-20	Surface	Primary	VA23A1412-002	1/18/2023	8.11	152	69.3	67.4	94	<3.0	0.52	<2.0	74.5	0.242	0.0166	0.0912	<0.0010	0.013	0.0214
Chedakuz Creek	CC-30	Surface	Primary	VA23C6498-002	11/1/2023	8.14	173	74.6	78.3	97	<3.0	1.05	<2.0	88.2	0.197	<0.0050	<0.0050	<0.0010	0.0047	0.013
Chedakuz Creek	CC-30	Surface	Primary	VA23C0393-002	8/29/2023	8.12	152	71.2	71.2	100	<3.0	1.04	<2.0	76.8	0.212	0.0059	<0.0050	<0.0010	0.0031	0.0107
Chedakuz Creek	CC-30	Surface	Duplicate	VA23C0393-003	8/29/2023	8.12	152	69.5	69.7	96	<3.0	1	<2.0	76.3	0.254	0.0057	<0.0050	<0.0010	0.0036	0.0182
Chedakuz Creek	CC-30	Surface	Primary	VA23B0508-001	5/11/2023	7.78	94.9	42.9	42.8	92	16.1	5.68	2.2	44.9	0.352	0.0066	<0.0050	<0.0010	0.0022	0.034
Chedakuz Creek	CC-30	Surface	Primary	VA23A3560-001	2/14/2023	7.93	162	72.2	76.2	112	<3.0	1.52	2.7	82	0.232	0.0307	0.0701	<0.0010	0.0107	0.0228
Chedakuz Creek	CC-40	Surface	Primary	VA23C9626-001	12/6/2023	7.99	180	79.5	80.1	100	<3.0	1.16	<2.0	93.1	0.183	0.0061	0.0307	<0.0010	0.0038	0.0133
Chedakuz Creek	CC-40	Surface	Primary	VA23C6498-001	11/1/2023	8.16	186	80	84.1	122	<3.0	1.21	<2.0	94.3	0.192	0.0058	<0.0050	<0.0010	0.0056	0.0145
Chedakuz Creek	CC-40	Surface	Primary	VA23C5771-001	10/24/2023	8.11	172	75.2	75	96	<3.0	1.83	<2.0	87.1	0.181	<0.0050	<0.0050	<0.0010	0.0044	0.0165
Chedakuz Creek	CC-40	Surface	Duplicate	VA23C5771-002	10/24/2023	8.11	173	78.1	75.3	95	<3.0	1.9	<2.0	86.9	0.193	0.0068	<0.0050	<0.0010	0.0044	0.0191
Chedakuz Creek	CC-40	Surface	Primary	VA23C5184-001	10/20/2023	7.99	173	86.9	90.5	107	<3.0	1.31	<2.0	90.7	0.191	<0.0050	<0.0050	<0.0010	0.0062	0.0152
Chedakuz Creek	CC-40	Surface	Primary	VA23C4458-001	10/11/2023	8.23	176	84	83.5	96	<3.0	1.08	<2.0	91.2	0.193	0.0061	<0.0050	<0.0010	0.0022	0.0162
Chedakuz Creek	CC-40	Surface	Primary	VA23C3871-001	10/4/2023	8.16	178	81.7	86.3	106	<3.0	0.98	<2.0	92.4	0.174	0.0061	<0.0050	<0.0010	0.0012	0.0141
Chedakuz Creek	CC-40	Surface	Primary	VA23C2546-005	9/20/2023	8.25	169	83.4	83	98	<3.0	0.95	<2.0	90.4	0.176	<0.0050	<0.0050	<0.0010	0.0044	0.0152
Chedakuz Creek	CC-40	Surface	Primary	VA23C0393-001	8/29/2023	8.12	161	74	72.6	104	<3.0	1.14	<2.0	81.8	0.23	0.0069	<0.0050	<0.0010	0.0042	0.0159
Chedakuz Creek	CC-40	Surface	Primary	VA23B7523-007	7/27/2023	7.62	164	71.6	68.4	92	<3.0	1.18	<2.0	66.8	0.225	<0.0050	<0.0050	<0.0010	0.0045	0.017
Chedakuz Creek	CC-40	Surface	Primary	VA23B2847-001	6/6/2023	7.9	140	66.7	66.5	104	4.1	1.08	<2.0	70	0.266	<0.0050	<0.0050	<0.0010	0.0025	0.0156
Chedakuz Creek	CC-40	Surface	Primary	VA23B2219-001	5/30/2023	7.9	126	57.9	57.5	85	12.9	3.21	<2.0	65.4	0.295	0.0112	<0.0050	<0.0010	0.004	0.0347
Chedakuz Creek	CC-40	Surface	Primary	VA23B1690-001	5/24/2023	7.89	112	53.9	54.8	101	13.6	3.49	<2.0	58.9	0.292	0.0107	0.0077	<0.0010	0.0033	0.0261
Chedakuz Creek	CC-40	Surface	Primary	VA23B1108-001	5/17/2023	7.82	97.4	44.5	49	75	17	4.36	2	48.3	0.486	0.0082	<0.0050	<0.0010	0.0018	0.0315
Chedakuz Creek	CC-40	Surface	Duplicate	VA23B1108-002	5/17/2023	7.82	96.4	44.4	47.4	73	17.6	4.76	2.1	47.9	0.431	0.0071	<0.0050	<0.0010	0.0019	0.0321
Chedakuz Creek	CC-40	Surface	Primary	VA23B0508-002	5/11/2023	7.79	93.6	43.2	42	87	18.5	5.45	<2.0	44.6	0.473	0.0072	0.0058	<0.0010	0.0025	0.0445
Chedakuz Creek	CC-40	Surface	Primary	VA23A9782-001	5/3/2023	7.76	103	48	47.8	80	49.4	10.8	<2.0	47.2	0.527	0.0122	0.0129	<0.0010	0.0044	0.0672
Chedakuz Creek	CC-40	Surface	Primary	VA23A9207-001	4/26/2023	8.17	148	66.5	67.5	91	8.7	3.82	2.1	76	0.263	0.0087	0.0108	<0.0010	0.0062	0.0274
Chedakuz Creek	CC-40	Surface	Primary	VA23A6844-001	3/27/2023	7.99	174	79.4	80.1	113	<3.0	1.49	<2.0	84.9	0.218	0.0155	0.0592	<0.0010	0.008	0.0218
Chedakuz Creek	CC-40	Surface	Primary	VA23A3035-001	2/7/2023	7.69	166	79.7	75	102	<3.0	1.08	3.3	84.6	0.237	0.0271	0.0843	0.0014	0.0092	0.0147
Chedakuz Creek	CC-40	Surface	Primary	VA23A1412-001	1/18/2023	8.14	175	76.7	77.9	95	<3.0	0.79	2.3	88.4	0.253	0.0384	0.0826	0.0015	0.0091	0.0182
Creek 705	705-05	Surface	Primary	VA23C9661-004	12/7/2023	7.55	54.1	24.7	22.6	47	<3.0	0.52	2.3	27.2	0.148	<0.0050	0.0082	<0.0010	<0.0010	0.0063
Creek 705	705-05	Surface	Primary	VA23C7190-010	11/9/2023	7.36	49.8	21.1	22.7	56	<3.0	0.68	<2.0	24.7	0.203	<0.0050	<0.0050	<0.0010	0.0012	0.0087
Creek 705	705-05	Surface	Duplicate	VA23C7190-011	11/9/2023	7.35	49.9	21.1	22.5	53	<3.0	0.66	<2.0	24.2	0.193	<0.0050	<0.0050	<0.0010	<0.0010	0.009
Creek 705	705-05	Surface	Primary	VA23C4014-006	10/6/2023	7.31	51.6	22.7	21.7	50	<3.0	0.65	2.2	26.9	0.153	<0.0050	<0.0050	<0.0010	<0.0010	0.0084
Creek 705	705-05	Surface	Primary	VA23C1674-001	9/12/2023	7.47	53.7	24	24.2	49	<3.0	0.75	2	26.4	0.226	<0.0050	<0.0050	<0.0010	<0.0010	0.0099
Creek 705	705-05	Surface	Primary	VA23B8906-003	8/14/2023	7.38	47.2	21.3	20.8	30	<3.0	0.68	2.2	23.4	0.232	<0.0050	<0.0050	<0.0010	<0.0010	0.0098
Creek 705	705-05	Surface	Duplicate	VA23B8906-004	8/14/2023	7.42	46.9	21.3	20.9	36	<3.0	0.66	2.1	23.3	0.247	<0.0050	<0.0050	<0.0010	<0.0010	0.0095
Creek 705	705-05	Surface	Primary	VA23B7523-003	7/27/2023	6.84	39.7	20.4	19.8	44	<3.0	1.06	2.3	17.3	0.272	<0.0050	<0.0050	<0.0010	<0.0010	0.0113
Creek 705	705-05	Surface	Primary	VA23B3687-004	6/14/2023	7	40.4	17.6	17.4	44	<3.0	0.49	<2.0	22.1	0.178	<0.0050	<0.0050	<0.0010	<0.0010	0.0066
Creek 705	705-05	Surface	Primary	VA23B0364-002	5/10/2023	7.13	27.6	13	13	54	<3.0	1.07	2.1	10.5	0.286	<0.0050	<0.0050	<0.0010	<0.0010	0.0158
Creek 705	705-05	Surface	Primary	VA23A8158-003	4/13/2023	7.66	65.1	28.6	28.2	54	4	1.28	2.3	31.8	0.199	<0.0050	0.0272	<0.0010	<0.0010	0.0123
Creek 705	705-05	Surface	Primary	VA23A6844-006	3/28/2023	7.45	48.1	20.6	20.5	40	<3.0	0.59	2.4	24.2	0.123	<0.0050	0.0286	<0.0010	<0.0010	0.0058
Creek 705	705-05	Surface	Primary	VA23A3268-004	2/9/2023	7.37	48.2	19	20	32	<3.0	0.61	<2.0	23.9	0.145	<0.0050	0.0245	<0.0010	0.0013	0.0045
Creek 705	705-05	Surface	Primary	VA23A1264-002	1/17/2023	7.41	47.6	20	19.8	43	<3.0	0.68	2.5	23.7	0.134	<0.0050	0.0149	<0.0010	0.0014	0.004
Creek 705	705-10	Surface	Primary	VA23C9661-005	12/7/2023	7.65	63.9	28.9	26.3	54	<3.0	0.26	2.1	31.8	0.122	<0.0050	0.0572	<0.0010	<0.0010	0.0049
Creek 705	705-10	Surface	Primary	VA23C6880-001	11/6/2023	7.36	60.4	26.3	27	57	<3.0	0.58	<2.0	29.6	0.161	<0.0050	0.0093	<0.0010	<0.0010	0.008
Creek 705	705-10	Surface	Primary	VA23C6383-004	10/31/2023	7.58	72	30.6	31.1	44	<3.0	0.13	2.1	36.1	0.124	<0.0050	0.0343	<0.0010	<0.0010	0.0034
Creek 705	705-10	Surface	Duplicate	VA23C6383-006	10/31/2023	7.75	84.6	35.1	35.6	46	<3.0	<0.10	<2.0	41.5	<0.050	<0.0050	0.0128	<0.0010	0.0021	0.0048

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Physical Tests									Anions and Nutrients					
						pH	Conductivity	Hardness (as $CaCO_3$)-Dissolved	Hardness (as $CaCO_3$)-Total	Total Dissolved Solids	Total Suspended Solids	Turbidity	Acidity (as $CaCO_3$)	Alkalinity, Total (as $CaCO_3$)	Total Kjeldahl Nitrogen	Ammonia, Total (as N)	Nitrate (as N)	Nitrite (as N)	Orthophosphate-Dissolved (as P)	Total Phosphate (as P)
						pH units	µS/cm	mg/L	mg/L	mg/L	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Creek 705	705-10	Surface	Primary	VA23C5894-004	10/25/2023	7.69	73.3	31.8	33	64	<3.0	1.95	<2.0	36.6	0.146	<0.0050	0.0294	<0.0010	<0.0010	0.003
Creek 705	705-10	Surface	Primary	VA23C4858-004	10/17/2023	7.66	64.7	29.6	27.3	50	<3.0	0.95	2.1	32.4	0.083	<0.0050	0.0066	<0.0010	<0.0010	0.0033
Creek 705	705-10	Surface	Primary	VA23C4586-005	10/14/2023	7.43	63.7	27.2	27.5	41	<3.0	0.12	2.5	31.2	0.099	<0.0050	0.0078	<0.0010	<0.0010	0.0025
Creek 705	705-10	Surface	Primary	VA23C4014-007	10/6/2023	7.53	60.2	27.4	27.3	46	<3.0	0.18	2.1	31.8	0.098	<0.0050	<0.0050	<0.0010	<0.0010	0.0031
Creek 705	705-10	Surface	Primary	VA23C1674-002	9/12/2023	7.64	62.2	27.8	27.7	55	<3.0	0.18	<2.0	31	0.13	<0.0050	<0.0050	<0.0010	<0.0010	0.0033
Creek 705	705-10	Surface	Primary	VA23B8906-002	8/14/2023	7.47	53	24.2	23.7	42	<3.0	0.3	2	26.6	0.192	<0.0050	0.0159	<0.0010	<0.0010	0.0057
Creek 705	705-10	Surface	Primary	VA23B7523-002	7/27/2023	6.92	44.7	23	21.8	49	16.1	5.36	2.3	22.4	0.267	0.0051	<0.0050	<0.0010	<0.0010	0.0089
Creek 705	705-10	Surface	Primary	VA23B3687-005	6/14/2023	7.16	53.6	24.4	24.4	50	<3.0	0.24	<2.0	28.7	0.205	<0.0050	<0.0050	<0.0010	<0.0010	0.0043
Creek 705	705-10	Surface	Primary	VA23B2224-004	5/31/2023	7.64	47.5	20	22.7	52	<3.0	0.39	2.3	23.1	0.161	<0.0050	<0.0050	<0.0010	<0.0010	0.0047
Creek 705	705-10	Surface	Primary	VA23B1379-005	5/22/2023	7.32	39.9	18	18.8	45	<3.0	0.93	2.5	17.1	0.216	<0.0050	<0.0050	<0.0010	<0.0010	0.0082
Creek 705	705-10	Surface	Primary	VA23B0766-009	5/16/2023	7.28	30.5	14	14.3	47	<3.0	1.42	2.7	12	0.212	<0.0050	<0.0050	<0.0010	<0.0010	0.0127
Creek 705	705-10	Surface	Primary	VA23B0364-003	5/10/2023	7.23	32.6	16	15.5	53	5	1.61	2	12.8	0.312	<0.0050	<0.0050	<0.0010	<0.0010	0.0179
Creek 705	705-10	Surface	Primary	VA23A9638-001	5/2/2023	7.06	34.3	17	17.7	71	5.7	3.84	3.3	11.4	0.549	<0.0050	<0.0050	<0.0010	0.0011	0.0364
Creek 705	705-10	Surface	Primary	VA23A8158-001	4/13/2023	7.69	67.7	27.9	27.7	56	<3.0	0.87	2.3	32	0.191	<0.0050	0.0333	<0.0010	<0.0010	0.0061
Creek 705	705-10	Surface	Duplicate	VA23A8158-002	4/13/2023	7.68	65.5	27.7	28	54	<3.0	0.9	2.2	32.7	0.194	<0.0050	0.0289	<0.0010	<0.0010	0.0064
Creek 705	705-10	Surface	Primary	VA23A6844-005	3/27/2023	7.59	62.4	27.4	27	45	<3.0	0.32	<2.0	30.5	0.107	<0.0050	0.0484	<0.0010	0.001	0.0036
Creek 705	705-10	Surface	Primary	VA23A3268-005	2/9/2023	7.49	56.6	22.6	23.4	41	<3.0	0.45	2	28.5	0.125	<0.0050	0.0356	<0.0010	0.0014	0.004
Creek 705	705-10	Surface	Primary	VA23A1264-003	1/17/2023	7.51	57.7	24.5	24.3	64	<3.0	0.65	2.7	28.9	0.143	<0.0050	0.034	<0.0010	0.0013	0.0033
Fawnie Creek	FC-01	Surface	Primary	VA23C9661-006	12/7/2023	7.82	85.8	38.5	35.5	62	<3.0	<0.10	<2.0	42.5	<0.050	<0.0050	0.051	<0.0010	0.0033	0.0068
Fawnie Creek	FC-01	Surface	Primary	VA23C6880-002	11/6/2023	7.61	78.3	32.2	33.4	52	<3.0	<0.10	<2.0	38.6	<0.050	<0.0050	0.0143	<0.0010	0.0033	0.0046
Fawnie Creek	FC-01	Surface	Primary	VA23C6383-005	10/31/2023	7.59	72	30.7	31.1	52	<3.0	0.13	<2.0	36.1	0.137	<0.0050	0.0327	<0.0010	0.0023	0.0038
Fawnie Creek	FC-01	Surface	Primary	VA23C5894-005	10/25/2023	7.8	83.3	36.1	37.6	60	<3.0	<0.10	<2.0	40.8	0.067	<0.0050	0.0092	<0.0010	<0.0010	0.005
Fawnie Creek	FC-01	Surface	Primary	VA23C4858-005	10/17/2023	7.8	75.9	32.3	32.4	56	<3.0	0.11	2	37.7	<0.050	<0.0050	<0.0050	<0.0010	0.0011	0.0062
Fawnie Creek	FC-01	Surface	Duplicate	VA23C4858-006	10/17/2023	7.81	76.1	33.4	33.6	54	<3.0	0.13	2	37.8	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	0.0057
Fawnie Creek	FC-01	Surface	Primary	VA23C4586-006	10/14/2023	7.73	81.1	33.6	34.6	53	<3.0	<0.10	2	39.3	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	0.0037
Fawnie Creek	FC-01	Surface	Primary	VA23C4014-008	10/6/2023	7.72	75.2	35.8	33.1	50	<3.0	<0.10	<2.0	38.7	<0.050	<0.0050	<0.0050	<0.0010	0.0017	0.0041
Fawnie Creek	FC-01	Surface	Primary	VA23C0875-004	9/4/2023	7.67	80.1	33.6	34.7	64	<3.0	<0.10	<2.0	39.8	<0.050	<0.0050	0.0056	<0.0010	0.0016	0.0052
Fawnie Creek	FC-01	Surface	Primary	VA23B8906-001	8/14/2023	7.6	65.8	29.8	29	40	<3.0	<0.10	<2.0	32.6	0.08	<0.0050	0.0053	<0.0010	0.0022	0.0055
Fawnie Creek	FC-01	Surface	Primary	VA23B7523-001	7/27/2023	6.94	57.2	28.6	27.3	45	<3.0	0.28	<2.0	28.1	0.126	0.0065	<0.0050	<0.0010	0.003	0.0065
Fawnie Creek	FC-01	Surface	Primary	VA23B4330-001	6/21/2023	7.46	44.8	21	20.4	44	<3.0	0.17	<2.0	22.3	0.157	<0.0050	<0.0050	<0.0010	0.0018	0.0052
Fawnie Creek	FC-01	Surface	Primary	VA23B2224-003	5/31/2023	7.6	42.4	17.7	18.8	46	<3.0	0.17	2	18.8	0.088	<0.0050	<0.0050	<0.0010	0.0012	0.0043
Fawnie Creek	FC-01	Surface	Primary	VA23B1379-006	5/22/2023	7.27	31.3	13.9	14.5	34	<3.0	0.53	2.4	13.1	0.18	0.0065	<0.0050	<0.0010	<0.0010	0.0068
Fawnie Creek	FC-01	Surface	Primary	VA23B0766-006	5/15/2023	7.09	22.6	10.2	12.2	42	41.5	12.7	2.7	8.1	0.167	<0.0050	<0.0050	<0.0010	<0.0010	0.0599
Fawnie Creek	FC-01	Surface	Primary	VA23B0364-004	5/10/2023	7.27	31.7	14.7	14.4	45	5.4	1.2	<2.0	12.2	0.256	<0.0050	<0.0050	<0.0010	<0.0010	0.0164
Fawnie Creek	FC-01	Surface	Primary	VA23A9638-002	5/2/2023	7.75	78.8	33.9	35.2	62	34.3	4.61	2	37.4	0.149	<0.0050	0.0361	<0.0010	0.0053	0.0276
Fawnie Creek	FC-01	Surface	Primary	VA23A8158-005	4/13/2023	7.94	97.7	40.8	40.9	59	<3.0	0.22	<2.0	48.2	<0.050	<0.0050	0.0589	<0.0010	0.0076	0.0082
Fawnie Creek	FC-01	Surface	Primary	VA23A6844-004	3/27/2023	7.84	95.8	41.3	41.5	57	<3.0	0.68	<2.0	46.6	<0.050	<0.0050	0.076	<0.0010	0.0077	0.009
Fawnie Creek	FC-01	Surface	Primary	VA23A3268-006	2/9/2023	7.76	92	37.2	39.2	55	<3.0	<0.10	<2.0	44.4	<0.050	<0.0050	0.0775	<0.0010	0.0074	0.008
Fawnie Creek	FC-01	Surface	Duplicate	VA23A3268-007	2/9/2023	7.77	91.8	37.6	39.1	56	<3.0	<0.10	<2.0	44.2	<0.050	<0.0050	0.0784	<0.0010	0.0073	0.0072
Fawnie Creek	FC-01	Surface	Primary	VA23A1264-001	1/17/2023	7.83	91.2	39	39.2	70	<3.0	0.51	<2.0	45	<0.050	<0.0050	0.0817	<0.0010	0.0064	0.0065
Field Blank	-	-	-	VA23C9661-007	12/7/2023	5.40	<2.0	<0.60	<0.60	<10	<3.0	<0.10	2.0	<1.0	<0.050	0.0076	<0.0050	<0.0010	<0.0010	<0.0020
Field Blank	-	-	-	VA23C6498-007	11/1/2023	5.54	<2.0	<0.60	<0.60	<10	<3.0	<0.10	<2.0	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Field Blank	-	-	-	VA23C5771-006	10/24/2023	5.60	<2.0	<0.60	<0.60	<10	<3.0	<0.10	<2.0	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Field Blank	-	-	-	VA23C5184-006	10/20/2023	5.53	<2.0	<0.60	<0.60	<10	<3.0	<0.10	<2.0	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Field Blank	-	-	-	VA23C4458-005	10/11/2023	5.39	<2.0	<0.60	<0.60	<10	<3.0	<0.10	<2.0	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Field Blank	-	-	-	VA23C3871-005	10/4/2023	5.49	<2.0	<0.60	<0.60	<10	<3.0	<0.10	<2.0	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Physical Tests									Anions and Nutrients					
						pH	Conductivity	Hardness (as $CaCO_3$)-Dissolved	Hardness (as $CaCO_3$)-Total	Total Dissolved Solids	Total Suspended Solids	Turbidity	Acidity (as $CaCO_3$)	Alkalinity, Total (as $CaCO_3$)	Total Kjeldahl Nitrogen	Ammonia, Total (as N)	Nitrate (as N)	Nitrite (as N)	Orthophosphate-Dissolved (as P)	Total Phosphate (as P)
						pH units	µS/cm	mg/L	mg/L	mg/L	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Field Blank	-	-	-	VA23C1854-004	9/13/2023	5.41	<2.0	<0.60	<0.60	<10	<3.0	<0.10	2.1	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Field Blank	-	-	-	VA23B8906-009	8/15/2023	5.35	<2.0	<0.60	<0.60	<10	<3.0	<0.10	<2.0	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Field Blank	-	-	-	VA23B7293-002	7/25/2023	5.23	<2.0	<0.60	<0.60	<10	<3.0	<0.10	2.5	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Field Blank	-	-	-	VA23B4330-008	6/21/2023	5.21	<2.0	<0.60	<0.60	<10	<3.0	<0.10	<2.0	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Field Blank	-	-	-	VA23B2219-006	5/30/2023	5.30	<2.0	<0.60	<0.60	<10	<3.0	<0.10	2.1	<1.0	0.084	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Field Blank	-	-	-	VA23B1379-003	5/22/2023	5.35	<2.0	<0.60	<0.60	<10	<3.0	<0.10	2.2	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Field Blank	-	-	-	VA23B1108-006	5/17/2023	5.92	<2.0	<0.60	<0.60	<10	<3.0	<0.10	2.3	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Field Blank	-	-	-	VA23B0222-007	5/9/2023	5.46	<2.0	<0.60	<0.60	<10	<3.0	<0.10	2.0	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Field Blank	-	-	-	VA23A9893-005	5/4/2023	5.49	<2.0	<0.60	<0.60	<10	<3.0	<0.10	2.1	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Field Blank	-	-	-	VA23A7852-006	4/11/2023	5.54	<2.0	<0.60	<0.60	<10	<3.0	<0.10	2.1	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Field Blank	-	-	-	VA23A6097-006	3/20/2023	5.55	<2.0	<0.60	<0.60	<10	<3.0	<0.10	2.0	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Field Blank	-	-	-	VA23A3035-002	2/7/2023	5.48	<2.0	<0.60	<0.60	<10	<3.0	<0.10	2.1	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Field Blank	-	-	-	VA23A1261-004	1/17/2023	5.34	<2.0	<0.60	<0.60	<10	<3.0	<0.10	<2.0	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Travel Blank	-	-	-	VA23D0165-001	12/14/2023	5.49	<2.0	-	<0.60	<10	<3.0	<0.10	2.1	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Travel Blank	-	-	-	VA23C7190-012	11/9/2023	5.52	<2.0	-	<0.60	<10	<3.0	<0.10	<2.0	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Travel Blank	-	-	-	VA23C5894-006	10/25/2023	5.48	<2.0	-	<0.60	<10	<3.0	<0.10	<2.0	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Travel Blank	-	-	-	VA23C5184-007	10/20/2023	5.45	<2.0	-	<0.60	<10	<3.0	<0.10	<2.0	<1.0	<0.050	<0.0050	<0.0050	<0.0010	-	<0.0020
Travel Blank	-	-	-	VA23C5293-008	10/19/2023	7.15	16.6	-	9.29	<10	<3.0	<0.10	<2.0	7.0	<0.050	<0.0050	0.0240	<0.0010	<0.0010	<0.0020
Travel Blank	-	-	-	VA23C4586-007	10/14/2023	5.40	<2.0	-	<0.60	<10	<3.0	<0.10	<2.0	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Travel Blank	-	-	-	VA23C4014-012	10/6/2023	5.42	<2.0	-	<0.60	<10	<3.0	<0.10	2.0	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Travel Blank	-	-	-	VA23C2546-006	9/20/2023	5.51	<2.0	-	<0.60	<10	<3.0	<0.10	<2.0	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Travel Blank	-	-	-	VA23C0762-005	8/31/2023	5.35	<2.0	-	<0.60	<10	<3.0	<0.10	2.2	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Travel Blank	-	-	-	VA23B7734-008	7/31/2023	5.12	<2.0	-	<0.60	<10	<3.0	<0.10	<2.0	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Travel Blank	-	-	-	VA23B4330-009	6/21/2023	5.18	<2.0	-	<0.60	<10	<3.0	<0.10	2.0	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Travel Blank	-	-	-	VA23B2224-005	5/31/2023	5.38	<2.0	-	<0.60	<10	<3.0	<0.10	2.4	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Travel Blank	-	-	-	VA23B1690-012	5/24/2023	5.25	<2.0	-	<0.60	<10	<3.0	<0.10	<2.0	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Travel Blank	-	-	-	VA23B1108-007	5/17/2023	5.58	<2.0	-	<0.60	<10	<3.0	<0.10	2.1	<1.0	-	-	<0.0050	<0.0010	<0.0010	-
Travel Blank	-	-	-	VA23A9893-006	5/4/2023	5.47	<2.0	-	<0.60	<10	<3.0	<0.10	2.1	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Travel Blank	-	-	-	VA23A9322-002	4/28/2023	5.56	<2.0	-	<0.60	<10	<3.0	<0.10	2.0	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Travel Blank	-	-	-	VA23A6844-009	3/28/2023	5.53	<2.0	-	<0.60	<10	<3.0	<0.10	2.3	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020
Travel Blank	-	-	-	VA23A4552-003	2/28/2023	5.10	<2.0	-	<0.60	<10	<3.0	<0.10	2.3	<1.0	<0.050	0.0113	<0.0050	<0.0010	<0.0010	<0.0020
Travel Blank	-	-	-	VA23A1890-005	1/25/2023	5.97	<2.0	-	<0.60	<10	<3.0	<0.10	<2.0	<1.0	<0.050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0020

Notes:
"-" indicates parameter was not analyzed.
"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Anions and Nutrients *(cont'd)*				Cyanides			Organic/Inorganic Carbon		Total Metals				
						Bromide (Br)	Chloride (Cl)	Fluoride (F)	Sulfate (SO4)	Cyanide, Total	Cyanide, Weak Acid Diss	Thiocyanate	Dissolved Organic Carbon	Total Organic Carbon	Aluminum (Al)-Total	Antimony (Sb)-Total	Arsenic (As)-Total	Barium (Ba)-Total	Beryllium (Be)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23C6622-009	11/2/2023	<0.050	<0.50	0.054	0.91	<0.0050	<0.0050	<0.50	8.16	8.63	0.005	<0.00010	0.0004	0.0104	<0.000020
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23C6622-008	11/2/2023	<0.050	<0.50	0.054	0.92	<0.0050	<0.0050	<0.50	8.32	9.1	0.0059	<0.00010	0.00039	0.0102	<0.000020
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23C6622-007	11/2/2023	<0.050	<0.50	0.054	0.92	<0.0050	<0.0050	<0.50	8.07	8.87	0.0052	<0.00010	0.0004	0.0106	<0.000020
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23C1854-001	9/13/2023	<0.050	<0.50	0.054	1.08	<0.0050	<0.0050	<0.50	8.38	8.6	0.0035	<0.00010	0.00046	0.0103	<0.000020
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23C1854-002	9/13/2023	<0.050	<0.50	0.054	1.08	<0.0050	<0.0050	<0.50	8.5	8.74	<0.0030	<0.00010	0.00046	0.0101	<0.000020
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23C1854-003	9/13/2023	<0.050	<0.50	0.054	1.09	<0.0050	<0.0050	<0.50	8.64	8.82	<0.0030	<0.00010	0.00042	0.0103	<0.000020
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23B2052-008	5/29/2023	<0.050	<0.50	0.06	1.38	<0.0050	<0.0050	<0.50	8.66	9.62	0.0045	<0.00010	0.00039	0.00908	<0.000020
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23B2052-007	5/29/2023	<0.050	<0.50	0.062	1.38	<0.0050	<0.0050	<0.50	8.7	9.56	0.0075	<0.00010	0.00038	0.00916	<0.000020
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23B2052-006	5/29/2023	<0.050	<0.50	0.059	1.23	<0.0050	<0.0050	<0.50	8.67	9.48	0.0059	<0.00010	0.00037	0.0131	<0.000020
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23A3692-003	2/15/2023	<0.050	<0.50	0.065	1.39	<0.0050	<0.0050	<0.50	10.4	9.89	<0.0030	<0.00010	0.00036	0.0093	<0.000020
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23A3692-002	2/15/2023	<0.050	<0.50	0.059	1.2	<0.0050	<0.0050	<0.50	8.74	8.98	<0.0030	<0.00010	0.00035	0.0101	<0.000020
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23A3692-001	2/15/2023	<0.050	<0.50	0.06	1.1	<0.0050	<0.0050	<0.50	8.82	8.88	0.0051	<0.00010	0.00042	0.0154	<0.000020
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23C5293-003	10/19/2023	<0.050	<0.50	0.049	3.58	<0.0050	<0.0050	<0.50	7.69	7.69	0.004	<0.00010	0.00055	0.00633	<0.000020
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23C5293-002	10/19/2023	<0.050	<0.50	0.063	3.58	<0.0050	<0.0050	<0.50	7.68	7.74	0.0046	<0.00010	0.00055	0.00598	<0.000020
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23C5293-001	10/19/2023	<0.050	<0.50	0.045	3.31	<0.0050	<0.0050	<0.50	7.37	7.48	0.0044	<0.00010	0.00069	0.00574	<0.000020
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23C0266-003	8/28/2023	<0.050	<0.50	0.062	3.59	<0.0050	<0.0050	<0.50	8.68	9.38	0.0055	<0.00010	0.00048	0.00628	<0.000020
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23C0266-002	8/28/2023	<0.050	<0.50	0.052	3.6	<0.0050	<0.0050	<0.50	8.4	8.72	0.0034	<0.00010	0.00062	0.00558	<0.000020
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23C0266-001	8/28/2023	<0.050	<0.50	0.052	3.47	<0.0050	<0.0050	<0.50	8.88	8.39	0.0041	<0.00010	0.00073	0.00532	<0.000020
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23B1690-011	5/24/2023	<0.050	<0.50	0.055	3.32	<0.0050	<0.0050	<0.50	8.26	8.69	0.0152	<0.00010	0.0005	0.00505	<0.000020
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23B1690-010	5/24/2023	<0.050	<0.50	0.056	3.34	<0.0050	<0.0050	<0.50	8.4	8.65	0.0199	<0.00010	0.00056	0.00532	<0.000020
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23B1690-009	5/24/2023	<0.050	<0.50	0.063	3.68	<0.0050	<0.0050	<0.50	8.19	8.21	0.0081	<0.00010	0.00054	0.00542	<0.000020
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23A3177-007	2/8/2023	<0.050	<0.50	0.06	3.53	<0.0050	<0.0050	<0.50	8.95	9.38	<0.0030	<0.00010	0.00054	0.00524	<0.000020
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23A3177-006	2/8/2023	<0.050	<0.50	0.056	3.45	<0.0050	<0.0050	<0.50	8.89	8.98	0.0033	<0.00010	0.00053	0.00507	<0.000020
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23A3177-005	2/8/2023	<0.050	<0.50	0.051	3.58	<0.0050	<0.0050	<0.50	8.83	9.12	0.0368	<0.00010	0.00061	0.00653	<0.000020
Davidson Creek	DC-05	Surface	Primary	VA23D0155-002	12/15/2023	<0.050	0.59	0.034	3.11	<0.0050	<0.0050	<0.50	4.49	3.86	0.19	<0.00010	0.00073	0.00932	<0.000020
Davidson Creek	DC-05	Surface	Primary	VA23C7190-002	11/8/2023	<0.050	0.99	0.034	3.48	0.0055	<0.0050	<0.50	5.77	6.05	0.448	<0.00010	0.00085	0.0108	0.000026
Davidson Creek	DC-05	Surface	Primary	VA23C6383-003	10/31/2023	<0.050	0.54	0.036	3.33	<0.0050	<0.0050	<0.50	3.75	3.74	0.123	<0.00010	0.00069	0.00908	<0.000020
Davidson Creek	DC-05	Surface	Primary	VA23C5894-001	10/25/2023	<0.050	0.73	0.034	3.6	<0.0050	<0.0050	<0.50	4.92	4.73	0.206	<0.00010	0.00073	0.0103	<0.000020
Davidson Creek	DC-05	Surface	Primary	VA23C4858-003	10/16/2023	<0.050	0.54	0.041	3.02	<0.0050	<0.0050	<0.50	4.18	3.74	0.095	<0.00010	0.00072	0.00911	<0.000020
Davidson Creek	DC-05	Surface	Primary	VA23C4586-001	10/14/2023	<0.050	0.56	0.041	2.77	<0.0050	<0.0050	<0.50	5.39	4.72	0.13	<0.00010	0.00071	0.0093	<0.000020
Davidson Creek	DC-05	Surface	Duplicate	VA23C4586-002	10/14/2023	<0.050	0.55	0.04	2.75	<0.0050	<0.0050	<0.50	4.43	4.51	0.0959	<0.00010	0.00072	0.00893	<0.000020
Davidson Creek	DC-05	Surface	Primary	VA23C4014-002	10/5/2023	<0.050	0.64	0.041	3.05	<0.0050	<0.0050	<0.50	4.86	5.05	0.357	<0.00010	0.00094	0.011	<0.000020
Davidson Creek	DC-05	Surface	Primary	VA23C0875-003	9/4/2023	<0.050	0.7	0.039	3.38	<0.0050	<0.0050	<0.50	4.46	4.55	0.0404	<0.00010	0.00074	0.00827	<0.000020
Davidson Creek	DC-05	Surface	Primary	VA23B9219-002	8/16/2023	<0.050	0.84	0.035	4.44	<0.0050	<0.0050	<0.50	5.49	5.42	0.0809	<0.00010	0.00095	0.00888	<0.000020
Davidson Creek	DC-05	Surface	Primary	VA23B7293-008	7/25/2023	<0.050	2.01	0.032	13	<0.0050	<0.0050	<0.50	10.5	10.6	0.146	<0.00010	0.00076	0.0123	<0.000020
Davidson Creek	DC-05	Surface	Primary	VA23B4181-003	6/21/2023	<0.050	<0.50	0.029	1.35	<0.0050	<0.0050	<0.50	8.05	8.43	0.104	<0.00010	0.00062	0.00532	0.000026
Davidson Creek	DC-05	Surface	Primary	VA23B2052-005	5/29/2023	<0.050	<0.50	0.031	1.09	<0.0050	<0.0050	<0.50	8.31	8.31	0.12	<0.00010	0.0006	0.00482	<0.000020
Davidson Creek	DC-05	Surface	Primary	VA23B1529-005	5/23/2023	<0.050	<0.50	0.03	0.92	<0.0050	<0.0050	<0.50	8.83	8.85	0.17	<0.00010	0.00054	0.00429	0.00003
Davidson Creek	DC-05	Surface	Primary	VA23B0766-010	5/16/2023	<0.050	<0.50	<0.020	0.71	<0.0050	<0.0050	0.51	13.1	13.2	0.255	<0.00010	0.00054	0.00444	0.000033
Davidson Creek	DC-05	Surface	Primary	VA23B0222-006	5/9/2023	<0.050	<0.50	0.023	0.78	<0.0050	<0.0050	<0.50	17	17	0.479	<0.00010	0.00063	0.00717	0.000043
Davidson Creek	DC-05	Surface	Primary	VA23A9893-002	5/4/2023	<0.050	0.52	0.025	1.34	<0.0050	<0.0050	0.55	23.8	24.4	0.743	<0.00010	0.0009	0.0108	0.000047
Davidson Creek	DC-05	Surface	Primary	VA23A7852-002	4/11/2023	<0.050	<0.50	0.05	3.48	<0.0050	<0.0050	<0.50	1.63	1.5	0.013	<0.00010	0.00058	0.00759	<0.000020
Davidson Creek	DC-05	Surface	Primary	VA23A5627-002	3/14/2023	<0.050	<0.50	0.047	3.29	<0.0050	<0.0050	<0.50	1.53	1.6	0.0106	<0.00010	0.00059	0.00824	<0.000020
Davidson Creek	DC-05	Surface	Primary	VA23A2861-004	2/6/2023	<0.050	<0.50	0.044	3.27	<0.0050	<0.0050	<0.50	1.84	1.92	0.0162	<0.00010	0.00059	0.0077	<0.000020
Davidson Creek	DC-05	Surface	Primary	VA23A1261-002	1/17/2023	<0.050	<0.50	0.04	3.18	<0.0050	<0.0050	<0.50	1.98	1.87	0.0126	<0.00010	0.00058	0.00773	<0.000020
Davidson Creek	DC-05	Surface	Duplicate	VA23A1261-005	1/17/2023	<0.050	<0.50	0.04	3.23	<0.0050	<0.0050	<0.50	1.9	1.95	0.0119	<0.00010	0.00059	0.00772	<0.000020

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Anions and Nutrients *(cont'd)*				Cyanides			Organic/Inorganic Carbon		Total Metals				
						Bromide (Br)	Chloride (Cl)	Fluoride (F)	Sulfate (SO4)	Cyanide, Total	Cyanide, Weak Acid Diss	Thiocyanate	Dissolved Organic Carbon	Total Organic Carbon	Aluminum (Al)-Total	Antimony (Sb)-Total	Arsenic (As)-Total	Barium (Ba)-Total	Beryllium (Be)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Davidson Creek	DC-10	Surface	Primary	VA23D0155-003	12/15/2023	<0.050	0.58	0.036	3.21	<0.0050	<0.0050	<0.50	3.48	3.67	0.16	<0.00010	0.00068	0.0091	<0.000020
Davidson Creek	DC-10	Surface	Duplicate	VA23D0155-004	12/15/2023	<0.050	0.58	0.036	3.19	<0.0050	<0.0050	<0.50	3.62	3.78	0.152	<0.00010	0.00068	0.00909	<0.000020
Davidson Creek	DC-10	Surface	Primary	VA23C7190-003	11/8/2023	<0.050	0.97	0.036	3.49	<0.0050	<0.0050	<0.50	6.02	6.04	0.503	<0.00010	0.00076	0.0104	0.000021
Davidson Creek	DC-10	Surface	Primary	VA23C4014-003	10/5/2023	<0.050	0.61	0.041	3.08	<0.0050	<0.0050	<0.50	4.55	4.4	0.137	<0.00010	0.00073	0.00938	<0.000020
Davidson Creek	DC-10	Surface	Primary	VA23C2388-003	9/19/2023	<0.050	0.56	0.039	2.73	<0.0050	<0.0050	<0.50	3.52	3.38	0.0283	<0.00010	0.00066	0.00859	<0.000020
Davidson Creek	DC-10	Surface	Primary	VA23B9219-003	8/16/2023	<0.050	0.85	0.036	4.51	<0.0050	<0.0050	<0.50	5.63	5.96	0.0755	<0.00010	0.00089	0.00879	<0.000020
Davidson Creek	DC-10	Surface	Primary	VA23B7293-007	7/25/2023	<0.050	1.96	0.033	12.7	<0.0050	<0.0050	<0.50	10.5	10.1	0.152	<0.00010	0.00076	0.0117	<0.000020
Davidson Creek	DC-10	Surface	Primary	VA23B4181-004	6/21/2023	<0.050	<0.50	0.031	1.39	<0.0050	<0.0050	<0.50	7.61	7.65	0.0996	<0.00010	0.00058	0.00568	<0.000020
Davidson Creek	DC-10	Surface	Primary	VA23A9893-003	5/4/2023	<0.050	0.52	0.026	1.34	<0.0050	<0.0050	0.56	23.4	24	0.66	<0.00010	0.00085	0.0106	0.000048
Davidson Creek	DC-10	Surface	Primary	VA23A7852-003	4/11/2023	<0.050	<0.50	0.05	3.55	<0.0050	<0.0050	<0.50	1.79	1.4	0.0148	<0.00010	0.00056	0.00804	<0.000020
Davidson Creek	DC-10	Surface	Primary	VA23A5627-003	3/14/2023	<0.050	<0.50	0.047	3.37	<0.0050	<0.0050	<0.50	1.68	1.67	0.0119	<0.00010	0.00054	0.00856	<0.000020
Davidson Creek	DC-10	Surface	Primary	VA23A2861-005	2/6/2023	<0.050	<0.50	0.045	3.35	<0.0050	<0.0050	<0.50	1.75	1.94	0.0138	<0.00010	0.00054	0.00794	<0.000020
Davidson Creek	DC-10	Surface	Duplicate	VA23A2861-006	2/6/2023	<0.050	<0.50	0.045	3.33	<0.0050	<0.0050	<0.50	1.77	1.92	0.0138	<0.00010	0.00052	0.00793	<0.000020
Davidson Creek	DC-10	Surface	Primary	VA23A1261-003	1/17/2023	<0.050	<0.50	0.038	3.25	<0.0050	<0.0050	<0.50	1.82	2.18	0.0343	<0.00010	0.00053	0.00814	<0.000020
Davidson Creek	DC-15	Surface	Primary	VA23D0155-005	12/15/2023	<0.050	0.5	0.04	3.13	<0.0050	<0.0050	<0.50	2.99	3.15	0.0639	<0.00010	0.00057	0.00867	<0.000020
Davidson Creek	DC-15	Surface	Primary	VA23C7190-004	11/8/2023	<0.050	0.82	0.041	3.2	<0.0050	<0.0050	<0.50	4.73	5.14	0.188	<0.00010	0.00071	0.00872	<0.000020
Davidson Creek	DC-15	Surface	Primary	VA23C4279-006	10/10/2023	<0.050	0.6	0.046	3.08	<0.0050	<0.0050	<0.50	3.83	3.68	0.0311	<0.00010	0.00066	0.00931	<0.000020
Davidson Creek	DC-15	Surface	Primary	VA23C2388-004	9/19/2023	<0.050	<0.50	0.044	2.58	<0.0050	<0.0050	<0.50	3.75	3.65	0.0175	<0.00010	0.00062	0.00868	<0.000020
Davidson Creek	DC-15	Surface	Primary	VA23B9219-004	8/16/2023	<0.050	0.78	0.04	4.06	<0.0050	<0.0050	<0.50	5.07	5.62	0.0356	<0.00010	0.00078	0.00834	<0.000020
Davidson Creek	DC-15	Surface	Primary	VA23B7293-006	7/25/2023	<0.050	1.49	0.036	9.21	<0.0050	<0.0050	<0.50	8.46	9.76	0.22	<0.00010	0.0008	0.0108	0.000021
Davidson Creek	DC-15	Surface	Duplicate	VA23B7293-011	7/25/2023	<0.050	1.53	0.036	9.33	<0.0050	<0.0050	<0.50	9.79	8.15	0.224	<0.00010	0.00084	0.0111	<0.000020
Davidson Creek	DC-15	Surface	Primary	VA23B4181-005	6/21/2023	<0.050	<0.50	0.035	1.45	<0.0050	<0.0050	<0.50	6.29	6.52	0.0621	<0.00010	0.00059	0.00616	<0.000020
Davidson Creek	DC-15	Surface	Primary	VA23A9893-004	5/4/2023	<0.050	0.54	0.029	1.42	<0.0050	<0.0050	0.54	22.4	24.2	0.636	<0.00010	0.0009	0.0109	0.000049
Davidson Creek	DC-15	Surface	Primary	VA23A9076-001	4/25/2023	<0.050	<0.50	0.045	2.34	<0.0050	<0.0050	<0.50	4.73	4.33	0.0178	<0.00010	0.00049	0.00878	<0.000020
Davidson Creek	DC-15	Surface	Primary	VA23A5821-002	3/15/2023	<0.050	<0.50	0.056	3.35	<0.0050	<0.0050	<0.50	1.67	1.67	0.008	<0.00010	0.00059	0.00884	<0.000020
Davidson Creek	DC-15	Surface	Primary	VA23A2670-003	2/4/2023	<0.050	<0.50	0.049	3.28	<0.0050	<0.0050	<0.50	1.87	1.7	0.0092	<0.00010	0.00059	0.00883	<0.000020
Davidson Creek	DC-15	Surface	Duplicate	VA23A2670-004	2/4/2023	<0.050	<0.50	0.053	3.29	<0.0050	<0.0050	<0.50	2.11	1.61	0.0082	<0.00010	0.00056	0.0084	<0.000020
Davidson Creek	DC-15	Surface	Primary	VA23A1491-004	1/19/2023	<0.050	<0.50	0.05	3.05	<0.0050	<0.0050	<0.50	1.66	2.06	0.0105	<0.00010	0.00053	0.00832	<0.000020
Davidson Creek	DC-20	Surface	Primary	VA23C9626-004	12/6/2023	<0.050	0.56	0.039	3.23	<0.0050	<0.0050	<0.50	3.16	3.55	0.138	<0.00010	0.00054	0.00855	<0.000020
Davidson Creek	DC-20	Surface	Primary	VA23C6498-006	11/1/2023	<0.050	<0.50	0.04	2.63	<0.0050	<0.0050	<0.50	3.02	2.85	0.025	<0.00010	0.00052	0.00909	<0.000020
Davidson Creek	DC-20	Surface	Primary	VA23C5771-005	10/24/2023	<0.050	0.61	0.039	2.77	<0.0050	<0.0050	<0.50	3.58	4.05	0.0854	<0.00010	0.00064	0.00838	<0.000020
Davidson Creek	DC-20	Surface	Primary	VA23C5184-002	10/20/2023	<0.050	0.5	0.047	2.79	<0.0050	<0.0050	<0.50	3.76	3.67	0.0266	<0.00010	0.00064	0.0094	<0.000020
Davidson Creek	DC-20	Surface	Duplicate	VA23C5184-003	10/20/2023	<0.050	0.5	0.045	2.8	<0.0050	<0.0050	<0.50	3.45	3.92	0.0212	<0.00010	0.00066	0.00908	<0.000020
Davidson Creek	DC-20	Surface	Primary	VA23C4458-004	10/11/2023	<0.050	0.52	0.044	2.39	<0.0050	<0.0050	<0.50	3.64	3.77	0.0186	<0.00010	0.0007	0.00898	<0.000020
Davidson Creek	DC-20	Surface	Primary	VA23C3871-006	10/4/2023	<0.050	<0.50	0.05	2.84	<0.0050	<0.0050	<0.50	3.27	3.28	0.0178	<0.00010	0.0007	0.00904	<0.000020
Davidson Creek	DC-20	Surface	Primary	VA23C2546-001	9/20/2023	<0.050	<0.50	0.046	2.32	<0.0050	<0.0050	<5.00	3.57	5.03	0.0228	<0.00010	0.00068	0.00916	<0.000020
Davidson Creek	DC-20	Surface	Duplicate	VA23C2546-002	9/20/2023	<0.050	<0.50	0.045	2.28	<0.0050	<0.0050	<5.00	3.45	4.43	0.022	<0.00010	0.0007	0.00869	<0.000020
Davidson Creek	DC-20	Surface	Primary	VA23B9723-001	8/22/2023	<0.050	0.6	0.039	2.97	<0.0050	<0.0050	<0.50	4.38	4.38	0.0318	<0.00010	0.00076	0.00888	<0.000020
Davidson Creek	DC-20	Surface	Primary	VA23B7734-005	7/31/2023	<0.050	1.19	0.041	6.86	<0.0050	<0.0050	<0.50	7.54	6.91	0.0572	<0.00010	0.00069	0.00912	<0.000020
Davidson Creek	DC-20	Surface	Primary	VA23B2847-003	6/6/2023	<0.050	<0.50	0.035	1.09	<0.0050	<0.0050	<0.50	5.84	5.66	0.0486	<0.00010	0.00053	0.00677	<0.000020
Davidson Creek	DC-20	Surface	Primary	VA23B2219-004	5/30/2023	<0.050	<0.50	0.039	1.02	<0.0050	<0.0050	<0.50	7.98	7.27	0.0782	<0.00010	0.00056	0.00614	<0.000020
Davidson Creek	DC-20	Surface	Primary	VA23B1690-002	5/24/2023	<0.050	<0.50	0.036	1.08	<0.0050	<0.0050	<0.50	7.3	8.1	0.137	<0.00010	0.00055	0.00527	0.000024
Davidson Creek	DC-20	Surface	Primary	VA23B1108-005	5/17/2023	<0.050	<0.50	0.026	0.58	<0.0050	<0.0050	0.56	11.5	11.6	0.321	<0.00010	0.00058	0.00549	0.000042
Davidson Creek	DC-20	Surface	Primary	VA23B0508-005	5/11/2023	<0.050	<0.50	0.033	0.96	<0.0050	<0.0050	<0.50	14.6	14.6	0.393	<0.00010	0.00057	0.00667	0.000032
Davidson Creek	DC-20	Surface	Primary	VA23A9782-004	5/3/2023	<0.050	0.64	0.036	1.54	<0.0050	<0.0050	0.62	20.6	22.9	0.776	<0.00010	0.00105	0.0129	0.000048
Davidson Creek	DC-20	Surface	Primary	VA23A9207-003	4/26/2023	<0.050	<0.50	0.05	1.86	<0.0050	<0.0050	<0.50	5.13	5.63	0.184	<0.00010	0.0007	0.0109	<0.000020

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Anions and Nutrients *(cont'd)*				Cyanides			Organic/Inorganic Carbon		Total Metals				
						Bromide (Br)	Chloride (Cl)	Fluoride (F)	Sulfate (SO4)	Cyanide, Total	Cyanide, Weak Acid Diss	Thiocyanate	Dissolved Organic Carbon	Total Organic Carbon	Aluminum (Al)-Total	Antimony (Sb)-Total	Arsenic (As)-Total	Barium (Ba)-Total	Beryllium (Be)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Davidson Creek	DC-20	Surface	Primary	VA23A6097-005	3/20/2023	<0.050	0.52	0.058	3.05	<0.0050	<0.0050	<0.50	1.78	2.04	0.0102	<0.00010	0.00044	0.00869	<0.000020
Davidson Creek	DC-20	Surface	Primary	VA23A3560-002	2/14/2023	<0.050	<0.50	0.05	3.07	<0.0050	<0.0050	<0.50	2.05	2.91	0.0699	<0.00010	0.00056	0.00962	<0.000020
Davidson Creek	DC-20	Surface	Primary	VA23A1889-001	1/24/2023	<0.050	<0.50	0.052	2.85	<0.0050	<0.0050	<0.50	2.15	3.02	0.113	0.0002	0.00069	0.0117	<0.000020
Turtle Creek	TC-01	Surface	Primary	VA23D0165-002	12/14/2023	<0.050	<0.50	0.033	1.46	<0.0050	<0.0050	<0.50	1.09	1.12	0.0061	<0.00010	0.00065	0.0099	<0.000020
Turtle Creek	TC-01	Surface	Primary	VA23C6880-003	11/6/2023	<0.050	<0.50	0.037	1.72	<0.0050	<0.0050	<0.50	1.1	1.22	<0.0030	<0.00010	0.00063	0.00926	<0.000020
Turtle Creek	TC-01	Surface	Primary	VA23C4014-009	10/6/2023	<0.050	<0.50	0.046	1.64	<0.0050	<0.0050	<0.50	1.58	1.73	0.0036	<0.00010	0.00068	0.0101	<0.000020
Turtle Creek	TC-01	Surface	Primary	VA23C1674-003	9/12/2023	<0.050	<0.50	0.046	1.49	<0.0050	<0.0050	<0.50	1.94	2.03	0.0047	<0.00010	0.00074	0.0104	<0.000020
Turtle Creek	TC-01	Surface	Primary	VA23B8906-007	8/15/2023	<0.050	<0.50	0.045	1.52	<0.0050	<0.0050	<0.50	3.14	3	0.0092	<0.00010	0.00074	0.0105	<0.000020
Turtle Creek	TC-01	Surface	Primary	VA23B7523-005	7/27/2023	<0.050	<0.50	0.044	1.24	<0.0050	<0.0050	<0.50	3.35	3.74	0.0105	<0.00010	0.00067	0.01	<0.000020
Turtle Creek	TC-01	Surface	Primary	VA23B4330-002	6/21/2023	<0.050	<0.50	0.045	1.78	<0.0050	<0.0050	<0.50	2.55	2.64	0.0077	<0.00010	0.00066	0.0094	<0.000020
Turtle Creek	TC-01	Surface	Duplicate	VA23B4330-007	6/21/2023	<0.050	<0.50	0.042	1.78	<0.0050	<0.0050	<0.50	3.27	2.89	0.0079	<0.00010	0.00072	0.00938	<0.000020
Turtle Creek	TC-01	Surface	Primary	VA23A9638-003	5/2/2023	<0.050	<0.50	0.046	2.32	<0.0050	<0.0050	<0.50	1.14	1.44	<0.0030	<0.00010	0.0007	0.0083	<0.000020
Turtle Creek	TC-01	Surface	Primary	VA23A8158-004	4/13/2023	<0.050	<0.50	0.047	1.74	<0.0050	<0.0050	<0.50	2.05	1.35	0.0093	<0.00010	0.00062	0.00863	<0.000020
Turtle Creek	TC-01	Surface	Primary	VA23A5821-003	3/15/2023	<0.050	<0.50	0.051	1.54	<0.0050	<0.0050	<0.50	0.97	1.05	0.0048	<0.00010	0.00069	0.00883	<0.000020
Turtle Creek	TC-01	Surface	Primary	VA23A3268-003	2/10/2023	<0.050	<0.50	0.037	1.95	<0.0050	<0.0050	<0.50	1.24	6.63	0.121	<0.00010	0.00108	0.0131	<0.000020
Turtle Creek	TC-01	Surface	Primary	VA23A1491-001	1/19/2023	<0.050	<0.50	0.046	1.62	<0.0050	<0.0050	<0.50	1.1	2.95	0.0688	<0.00010	0.00077	0.0112	<0.000020
Turtle Creek	TC-05	Surface	Primary	VA23D0165-003	12/14/2023	<0.050	<0.50	0.051	4.16	<0.0050	<0.0050	<0.50	2.74	2.93	0.0115	<0.00010	0.0004	0.0126	<0.000020
Turtle Creek	TC-05	Surface	Primary	VA23C6880-004	11/6/2023	<0.050	0.68	0.055	3.17	<0.0050	<0.0050	<0.50	3.59	3.7	0.0106	<0.00010	0.00039	0.0114	<0.000020
Turtle Creek	TC-05	Surface	Primary	VA23C4458-006	10/11/2023	<0.050	<0.50	0.058	2.7	<0.0050	<0.0050	0.67	4.33	5.01	0.0421	<0.00010	0.00054	0.0124	<0.000020
Turtle Creek	TC-05	Surface	Primary	VA23C1674-004	9/12/2023	<0.050	<0.50	0.063	2.91	<0.0050	<0.0050	<0.50	4.75	4.79	0.022	<0.00010	0.0006	0.0124	<0.000020
Turtle Creek	TC-05	Surface	Duplicate	VA23C1674-006	9/12/2023	<0.050	<0.50	0.068	2.9	<0.0050	<0.0050	<0.50	4.89	5.03	0.0176	<0.00010	0.00056	0.0122	<0.000020
Turtle Creek	TC-05	Surface	Primary	VA23B8906-008	8/15/2023	<0.050	<0.50	0.066	2.7	<0.0050	<0.0050	<0.50	6.69	6.75	0.0325	<0.00010	0.00077	0.0134	<0.000020
Turtle Creek	TC-05	Surface	Primary	VA23B4330-003	6/21/2023	<0.050	<0.50	0.057	2.44	<0.0050	<0.0050	<0.50	5.52	5.67	0.0268	<0.00010	0.00047	0.0112	<0.000020
Turtle Creek	TC-05	Surface	Primary	VA23B0364-005	5/10/2023	<0.050	<0.50	0.037	0.93	<0.0050	<0.0050	0.65	17.9	18.9	0.568	<0.00010	0.00047	0.0101	0.000048
Turtle Creek	TC-05	Surface	Primary	VA23A7852-004	4/11/2023	<0.050	<0.50	0.062	4.38	<0.0050	<0.0050	<0.50	3.1	2.74	0.0187	<0.00010	0.00049	0.0118	<0.000020
Turtle Creek	TC-05	Surface	Primary	VA23A5821-004	3/15/2023	<0.050	<0.50	0.065	4.6	<0.0050	<0.0050	<0.50	2.2	2.18	0.0129	<0.00010	0.0005	0.012	<0.000020
Turtle Creek	TC-05	Surface	Primary	VA23A3268-002	2/10/2023	<0.050	<0.50	0.056	3.92	<0.0050	<0.0050	<0.50	3.22	2.99	0.015	<0.00010	0.00043	0.0118	<0.000020
Turtle Creek	TC-05	Surface	Primary	VA23A1491-002	1/19/2023	<0.050	<0.50	0.062	3.97	<0.0050	<0.0050	<0.50	2.58	2.95	0.0162	<0.00010	0.00044	0.0117	<0.000020
Turtle Creek	TC-10	Surface	Primary	VA23D0165-004	12/14/2023	<0.050	<0.50	0.056	4.28	<0.0050	<0.0050	<0.50	3.5	3.41	0.0091	<0.00010	0.00038	0.0142	<0.000020
Turtle Creek	TC-10	Surface	Duplicate	VA23D0165-005	12/14/2023	<0.050	<0.50	0.055	4.28	<0.0050	<0.0050	<0.50	3.73	3.41	0.0132	<0.00010	0.00039	0.0142	<0.000020
Turtle Creek	TC-10	Surface	Primary	VA23C6880-005	11/6/2023	<0.050	0.77	0.054	3.38	<0.0050	<0.0050	<0.50	3.64	3.69	0.0082	<0.00010	0.00039	0.0121	<0.000020
Turtle Creek	TC-10	Surface	Primary	VA23C4014-010	10/6/2023	<0.050	<0.50	0.068	2.2	<0.0050	<0.0050	<0.50	4.89	4.87	0.0103	<0.00010	0.00054	0.0133	<0.000020
Turtle Creek	TC-10	Surface	Primary	VA23C1674-005	9/12/2023	<0.050	<0.50	0.07	1.19	<0.0050	<0.0050	<0.50	5.76	5.77	0.0122	<0.00010	0.00062	0.0146	<0.000020
Turtle Creek	TC-10	Surface	Primary	VA23C0266-005	8/28/2023	<0.050	<0.50	0.066	1.32	<0.0050	<0.0050	<0.50	6.93	7.2	0.0144	<0.00010	0.00071	0.0158	<0.000020
Turtle Creek	TC-10	Surface	Primary	VA23B7293-012	7/25/2023	<0.050	<0.50	0.07	1.06	<0.0050	<0.0050	<0.50	7.1	6.67	0.0161	<0.00010	0.00071	0.0143	<0.000020
Turtle Creek	TC-10	Surface	Primary	VA23B4330-004	6/21/2023	<0.050	<0.50	0.067	1.9	<0.0050	<0.0050	<0.50	6.94	6.92	0.0199	<0.00010	0.00058	0.012	<0.000020
Turtle Creek	TC-10	Surface	Primary	VA23A9638-004	5/2/2023	<0.050	0.66	0.045	2.11	<0.0050	<0.0050	<0.50	15.3	15.2	0.409	<0.00010	0.00088	0.0139	0.000024
Turtle Creek	TC-10	Surface	Primary	VA23A7852-005	4/11/2023	<0.050	<0.50	0.068	4.34	<0.0050	<0.0050	<0.50	3.99	3.69	0.0134	<0.00010	0.00052	0.0127	<0.000020
Turtle Creek	TC-10	Surface	Primary	VA23A5627-004	3/14/2023	<0.050	<0.50	0.064	4.36	<0.0050	<0.0050	<0.50	3.32	3.01	0.0106	<0.00010	0.00048	0.0132	<0.000020
Turtle Creek	TC-10	Surface	Primary	VA23A3268-001	2/10/2023	<0.050	<0.50	0.06	4.12	<0.0050	<0.0050	<0.50	3.26	3.57	0.0097	<0.00010	0.00042	0.0117	<0.000020
Turtle Creek	TC-10	Surface	Primary	VA23A1111-001	1/16/2023	<0.050	<0.50	0.067	4.09	<0.0050	<0.0050	<0.50	2.9	3.16	0.0123	<0.00010	0.00043	0.0124	<0.000020
Turtle Creek	TC-15	Surface	Primary	VA23C6880-006	11/6/2023	<0.050	0.67	0.063	2.59	<0.0050	<0.0050	<0.50	4.54	4.69	0.018	<0.00010	0.0003	0.00991	<0.000020
Turtle Creek	TC-15	Surface	Primary	VA23C4014-011	10/6/2023	<0.050	<0.50	0.069	1.12	<0.0050	<0.0050	<0.50	6.2	6.17	0.0041	<0.00010	0.00035	0.0119	<0.000020
Turtle Creek	TC-15	Surface	Primary	VA23C0266-004	8/28/2023	<0.050	<0.50	0.068	0.78	<0.0050	<0.0050	<0.50	8.7	9.03	0.0119	<0.00010	0.00047	0.0156	<0.000020
Turtle Creek	TC-15	Surface	Primary	VA23B7523-006	7/27/2023	<0.050	<0.50	0.069	0.73	<0.0050	<0.0050	<0.50	9.04	8.77	0.0276	<0.00010	0.00041	0.0126	<0.000020
Turtle Creek	TC-15	Surface	Primary	VA23B4330-005	6/21/2023	<0.050	<0.50	0.067	1.27	<0.0050	<0.0050	<0.50	8.33	7.73	0.0458	<0.00010	0.00036	0.0114	<0.000020

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Anions and Nutrients *(cont'd)*				Cyanides			Organic/Inorganic Carbon		Total Metals				
						Bromide (Br)	Chloride (Cl)	Fluoride (F)	Sulfate (SO4)	Cyanide, Total	Cyanide, Weak Acid Diss	Thiocyanate	Dissolved Organic Carbon	Total Organic Carbon	Aluminum (Al)-Total	Antimony (Sb)-Total	Arsenic (As)-Total	Barium (Ba)-Total	Beryllium (Be)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Turtle Creek	TC-15	Surface	Primary	VA23A9638-005	5/2/2023	<0.050	0.74	0.06	2.38	<0.0050	<0.0050	<0.50	11.3	11.5	0.0589	0.00012	0.0005	0.01	<0.000020
Turtle Creek	TC-15	Surface	Primary	VA23A9207-004	4/26/2023	<0.050	<0.50	0.06	2.29	<0.0050	<0.0050	<0.50	5.17	5.78	0.0659	<0.00010	0.00048	0.0116	<0.000020
Creek 661	661-01	Surface	Primary	VA23C9661-001	12/7/2023	<0.050	<0.50	0.031	0.46	<0.0050	<0.0050	<0.50	3.75	3.38	0.0376	<0.00010	0.00041	0.00314	<0.000020
Creek 661	661-01	Surface	Duplicate	VA23C9661-002	12/7/2023	<0.050	<0.50	0.03	0.46	<0.0050	<0.0050	<0.50	3.38	3.91	0.0349	<0.00010	0.00044	0.0031	<0.000020
Creek 661	661-01	Surface	Primary	VA23C7190-008	11/9/2023	<0.050	<0.50	0.03	0.47	<0.0050	<0.0050	<0.50	3.15	3.23	0.0311	<0.00010	0.00034	0.0026	<0.000020
Creek 661	661-01	Surface	Primary	VA23C6383-001	10/31/2023	<0.050	<0.50	0.023	0.52	<0.0050	<0.0050	<0.50	3.04	3.1	0.0424	<0.00010	0.00034	0.00352	<0.000020
Creek 661	661-01	Surface	Primary	VA23C5894-003	10/25/2023	<0.050	<0.50	0.02	0.4	<0.0050	<0.0050	<0.50	3.62	3.58	0.0396	<0.00010	0.00034	0.00362	<0.000020
Creek 661	661-01	Surface	Primary	VA23C4858-001	10/16/2023	<0.050	<0.50	0.029	0.55	<0.0050	<0.0050	<0.50	3.21	3.02	0.0286	<0.00010	0.0004	0.00289	<0.000020
Creek 661	661-01	Surface	Primary	VA23C4586-003	10/14/2023	<0.050	<0.50	0.029	0.38	<0.0050	<0.0050	<0.50	3.23	3.19	0.0378	<0.00010	0.00038	0.00292	<0.000020
Creek 661	661-01	Surface	Primary	VA23C4014-004	10/5/2023	<0.050	<0.50	0.032	0.56	<0.0050	<0.0050	<0.50	3.5	3.5	0.0281	<0.00010	0.00041	0.00318	<0.000020
Creek 661	661-01	Surface	Primary	VA23C0875-002	9/4/2023	<0.050	<0.50	0.031	0.3	<0.0050	<0.0050	<0.50	3.92	3.78	0.0314	<0.00010	0.00046	0.00264	<0.000020
Creek 661	661-01	Surface	Primary	VA23B8906-006	8/15/2023	<0.050	<0.50	0.03	<0.30	<0.0050	<0.0050	<0.50	5.26	5.04	0.0341	<0.00010	0.00052	0.00308	<0.000020
Creek 661	661-01	Surface	Primary	VA23B7523-004	7/27/2023	<0.050	<0.50	0.032	0.65	<0.0050	<0.0050	<0.50	7.6	7.54	0.079	<0.00010	0.00078	0.00259	<0.000020
Creek 661	661-01	Surface	Primary	VA23B3687-001	6/14/2023	<0.050	<0.50	0.026	<0.30	<0.0050	<0.0050	<0.50	6.23	6.06	0.0581	<0.00010	0.00051	0.00235	<0.000020
Creek 661	661-01	Surface	Primary	VA23B2847-004	6/6/2023	<0.050	<0.50	0.023	<0.30	<0.0050	<0.0050	<0.50	7.4	7.28	0.0753	<0.00010	0.0006	0.00224	<0.000020
Creek 661	661-01	Surface	Primary	VA23B2224-001	5/31/2023	<0.050	<0.50	0.03	<0.30	<0.0050	<0.0050	<0.50	8.29	8.16	0.0952	<0.00010	0.00066	0.00232	<0.000020
Creek 661	661-01	Surface	Primary	VA23B1379-001	5/22/2023	<0.050	<0.50	0.027	<0.30	<0.0050	<0.0050	0.5	10.8	10.6	0.145	<0.00010	0.00064	0.00241	0.000026
Creek 661	661-01	Surface	Duplicate	VA23B1379-002	5/22/2023	<0.050	<0.50	0.023	<0.30	<0.0050	<0.0050	<0.50	10.4	10.4	0.143	<0.00010	0.00062	0.00248	0.000027
Creek 661	661-01	Surface	Primary	VA23B0766-007	5/16/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	12.7	12.2	0.192	<0.00010	0.00062	0.00274	0.00003
Creek 661	661-01	Surface	Primary	VA23A8158-006	4/14/2023	<0.050	<0.50	0.03	0.57	<0.0050	<0.0050	<0.50	4.07	3.36	0.0566	<0.00010	0.00034	0.00267	<0.000020
Creek 661	661-01	Surface	Primary	VA23A6844-007	3/28/2023	<0.050	<0.50	0.028	0.5	<0.0050	<0.0050	<0.50	4.65	4.73	0.0801	<0.00010	0.00056	0.00288	<0.000020
Creek 661	661-01	Surface	Primary	VA23A4552-001	2/28/2023	<0.050	<0.50	0.027	0.46	<0.0050	<0.0050	<0.50	5.06	4.84	0.0734	<0.00010	0.00059	0.00266	<0.000020
Creek 661	661-01	Surface	Primary	VA23A1264-005	1/17/2023	<0.050	<0.50	<0.020	0.42	<0.0050	<0.0050	<0.50	4.92	5.83	0.101	<0.00010	0.00038	0.00237	<0.000020
Creek 661	661-04	Surface	Primary	VA23C9661-003	12/7/2023	<0.050	0.76	0.049	3.72	<0.0050	<0.0050	<0.50	3.06	2.51	0.0241	0.00012	0.00109	0.00451	<0.000020
Creek 661	661-04	Surface	Primary	VA23C7190-009	11/9/2023	<0.050	1.07	0.05	4.18	<0.0050	<0.0050	<0.50	3.86	3.8	0.0285	<0.00010	0.00115	0.00395	<0.000020
Creek 661	661-04	Surface	Primary	VA23C6383-002	10/31/2023	<0.050	0.61	0.044	2.57	<0.0050	<0.0050	<0.50	2.47	2.34	0.027	<0.00010	0.00114	0.0043	<0.000020
Creek 661	661-04	Surface	Primary	VA23C5894-002	10/25/2023	<0.050	0.93	0.042	3.42	<0.0050	<0.0050	<0.50	3.2	3.23	0.0322	<0.00010	0.00108	0.00429	<0.000020
Creek 661	661-04	Surface	Primary	VA23C4858-002	10/16/2023	<0.050	0.88	0.051	2.36	<0.0050	<0.0050	<0.50	3.37	2.94	0.0264	<0.00010	0.00126	0.00455	<0.000020
Creek 661	661-04	Surface	Primary	VA23C4586-004	10/14/2023	<0.050	0.74	0.05	2.17	<0.0050	<0.0050	<0.50	3.33	3.27	0.0231	<0.00010	0.00117	0.00448	<0.000020
Creek 661	661-04	Surface	Primary	VA23C4014-005	10/5/2023	<0.050	0.91	0.053	2.5	<0.0050	<0.0050	<0.50	3.54	3.64	0.0269	<0.00010	0.00129	0.00479	<0.000020
Creek 661	661-04	Surface	Primary	VA23C1991-004	9/14/2023	<0.050	0.54	0.048	1.57	<0.0050	<0.0050	<0.50	3.73	3.46	0.028	<0.00010	0.00126	0.00469	<0.000020
Creek 661	661-04	Surface	Primary	VA23B8906-005	8/14/2023	<0.050	0.83	0.047	3.12	<0.0050	<0.0050	<0.50	5.4	5.56	0.0375	<0.00010	0.00134	0.00507	<0.000020
Creek 661	661-04	Surface	Primary	VA23B3687-002	6/14/2023	<0.050	<0.50	0.04	1.58	<0.0050	<0.0050	<0.50	5.15	5.35	0.0546	<0.00010	0.00113	0.00384	<0.000020
Creek 661	661-04	Surface	Duplicate	VA23B3687-003	6/14/2023	<0.050	<0.50	0.04	1.61	<0.0050	<0.0050	<0.50	5.16	5.05	0.054	<0.00010	0.00113	0.00381	<0.000020
Creek 661	661-04	Surface	Primary	VA23B2847-005	6/6/2023	<0.050	<0.50	0.034	1.98	<0.0050	<0.0050	<0.50	5.99	6.09	0.0654	<0.00010	0.00106	0.00372	<0.000020
Creek 661	661-04	Surface	Primary	VA23B2224-002	5/31/2023	<0.050	<0.50	0.042	2.34	<0.0050	<0.0050	<0.50	7.64	7.56	0.0947	<0.00010	0.00098	0.00338	<0.000020
Creek 661	661-04	Surface	Primary	VA23B1379-004	5/22/2023	<0.050	<0.50	0.036	2.67	<0.0050	<0.0050	0.52	10.2	10.7	0.154	<0.00010	0.00086	0.00348	<0.000020
Creek 661	661-04	Surface	Primary	VA23B0766-008	5/16/2023	<0.050	<0.50	0.028	2.77	<0.0050	<0.0050	0.52	13.4	13.4	0.22	<0.00010	0.00083	0.00341	0.000029
Creek 661	661-04	Surface	Primary	VA23A8158-007	4/14/2023	<0.050	<0.50	0.052	4.09	<0.0050	<0.0050	<0.50	1.91	2.01	0.0212	<0.00010	0.00111	0.00426	<0.000020
Creek 661	661-04	Surface	Primary	VA23A6844-008	3/28/2023	<0.050	<0.50	0.053	3.38	<0.0050	<0.0050	<0.50	2.03	2.2	0.0218	0.00011	0.00116	0.00398	<0.000020
Creek 661	661-04	Surface	Primary	VA23A3268-009	2/9/2023	<0.050	<0.50	0.045	3.26	<0.0050	<0.0050	<0.50	2.27	2.15	0.0212	<0.00010	0.00111	0.0039	<0.000020
Creek 661	661-04	Surface	Primary	VA23A1264-004	1/17/2023	<0.050	<0.50	0.042	2.56	<0.0050	<0.0050	<0.50	2.36	2.46	0.06	<0.00010	0.00122	0.00466	<0.000020
Creek 661	661-05	Surface	Primary	VA23C9238-004	12/4/2023	<0.050	<0.50	0.055	1.11	<0.0050	<0.0050	<0.50	2.32	2.1	0.437	<0.00010	0.0015	0.00767	<0.000020
Creek 661	661-05	Surface	Primary	VA23C7190-005	11/8/2023	<0.050	<0.50	0.055	1.04	<0.0050	<0.0050	<0.50	4.02	4.49	3.39	0.00018	0.00296	0.0309	0.000122
Creek 661	661-05	Surface	Duplicate	VA23C7190-006	11/8/2023	<0.050	<0.50	0.054	1.03	<0.0050	<0.0050	<0.50	3.88	4.58	2.71	0.00017	0.00287	0.0273	0.000112
Creek 661	661-05	Surface	Primary	VA23C4865-004	10/16/2023	<0.050	2.62	0.07	2.87	<0.0050	<0.0050	<0.50	2.88	2.29	0.0331	<0.00010	0.00145	0.00486	<0.000020

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Anions and Nutrients *(cont'd)*				Cyanides			Organic/Inorganic Carbon		Total Metals				
						Bromide (Br)	Chloride (Cl)	Fluoride (F)	Sulfate (SO4)	Cyanide, Total	Cyanide, Weak Acid Diss	Thiocyanate	Dissolved Organic Carbon	Total Organic Carbon	Aluminum (Al)-Total	Antimony (Sb)-Total	Arsenic (As)-Total	Barium (Ba)-Total	Beryllium (Be)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Creek 661	661-05	Surface	Primary	VA23C1491-002	9/11/2023	<0.050	<0.50	0.059	1.07	<0.0050	<0.0050	<0.50	2.12	2.47	0.034	<0.00010	0.00155	0.00512	<0.000020
Creek 661	661-05	Surface	Primary	VA23B9219-005	8/16/2023	<0.050	<0.50	0.054	0.9	<0.0050	<0.0050	<0.50	3.85	3.74	0.065	<0.00010	0.00152	0.00531	<0.000020
Creek 661	661-05	Surface	Primary	VA23B7293-010	7/25/2023	<0.050	<0.50	0.053	0.68	<0.0050	<0.0050	<0.50	8.2	8.09	0.0633	<0.00010	0.0012	0.00509	<0.000020
Creek 661	661-05	Surface	Primary	VA23B4181-001	6/21/2023	<0.050	<0.50	0.046	0.86	<0.0050	<0.0050	<0.50	7.13	7.09	0.099	<0.00010	0.00109	0.00498	<0.000020
Creek 661	661-05	Surface	Primary	VA23B0766-005	5/15/2023	<0.050	<0.50	0.039	0.85	<0.0050	<0.0050	<0.50	11.4	11.2	0.185	<0.00010	0.00085	0.00493	0.000022
Creek 661	661-05	Surface	Primary	VA23A9322-001	4/27/2023	<0.050	<0.50	0.051	2.15	<0.0050	<0.0050	<0.50	4.74	5.99	0.15	<0.00010	0.0012	0.0052	<0.000020
Creek 661	661-05	Surface	Primary	VA23A5821-001	3/15/2023	<0.050	<0.50	0.065	1.54	<0.0050	<0.0050	<0.50	1.37	1.37	0.0324	<0.00010	0.00122	0.00462	<0.000020
Creek 661	661-05	Surface	Primary	VA23A2670-001	2/4/2023	<0.050	<0.50	0.061	1.48	<0.0050	<0.0050	<0.50	1.66	1.44	0.0384	<0.00010	0.00126	0.00468	<0.000020
Creek 661	661-05	Surface	Primary	VA23A1491-003	1/19/2023	<0.050	<0.50	0.058	1.21	<0.0050	<0.0050	<0.50	1.36	1.63	0.0354	<0.00010	0.00132	0.00464	<0.000020
Creek 661	661-03	Surface	Primary	VA23C9238-001	12/4/2023	<0.050	<0.50	0.044	1	<0.0050	<0.0050	<0.50	7.75	7.9	0.0568	<0.00010	0.00033	0.00529	<0.000020
Creek 661	661-03	Surface	Primary	VA23C6622-002	11/2/2023	<0.050	<0.50	0.049	0.95	<0.0050	<0.0050	<0.50	4.08	4.27	0.0304	<0.00010	0.00029	0.00664	<0.000020
Creek 661	661-03	Surface	Primary	VA23C5577-001	10/23/2023	<0.050	<0.50	0.043	0.81	<0.0050	<0.0050	<0.50	6.56	6.02	0.0259	<0.00010	0.00034	0.00558	<0.000020
Creek 661	661-03	Surface	Primary	VA23C4865-003	10/16/2023	<0.050	<0.50	0.07	1.39	<0.0050	<0.0050	<0.50	2.38	2.28	<0.0180	<0.00010	0.00029	0.00809	<0.000020
Creek 661	661-03	Surface	Primary	VA23C4279-004	10/10/2023	<0.050	<0.50	0.058	1.28	<0.0050	<0.0050	<0.50	2.96	3.57	0.0267	<0.00010	0.00028	0.00834	<0.000020
Creek 661	661-03	Surface	Duplicate	VA23C4279-005	10/10/2023	<0.050	<0.50	0.063	1.26	<0.0050	<0.0050	<0.50	2.54	3.65	0.0385	<0.00010	0.00032	0.00902	<0.000020
Creek 661	661-03	Surface	Primary	VA23C3847-004	10/3/2023	<0.050	<0.50	0.061	1.26	<0.0050	<0.0050	<0.50	2.65	2.88	0.0249	<0.00010	0.00028	0.00846	<0.000020
Creek 661	661-03	Surface	Primary	VA23C1491-001	9/11/2023	<0.050	<0.50	0.054	1.11	<0.0050	<0.0050	<0.50	2.96	2.89	0.0399	<0.00010	0.00028	0.00906	<0.000020
Creek 661	661-03	Surface	Primary	VA23B9359-002	8/17/2023	<0.050	<0.50	0.049	0.52	<0.0050	<0.0050	<0.50	7.29	7.98	0.0402	<0.00010	0.00034	0.00748	<0.000020
Creek 661	661-03	Surface	Primary	VA23B7293-003	7/25/2023	<0.050	<0.50	0.053	0.5	<0.0050	<0.0050	<0.50	9.68	10.1	0.0618	<0.00010	0.0004	0.00604	<0.000020
Creek 661	661-03	Surface	Primary	VA23B3987-002	6/19/2023	<0.050	<0.50	0.042	0.52	<0.0050	<0.0050	<0.50	9.39	10.1	0.14	<0.00010	0.00038	0.00679	<0.000020
Creek 661	661-03	Surface	Primary	VA23B2052-002	5/29/2023	<0.050	<0.50	0.05	0.54	<0.0050	<0.0050	0.52	13.2	14.1	0.0962	<0.00010	0.00034	0.00494	<0.000020
Creek 661	661-03	Surface	Primary	VA23B1529-001	5/23/2023	<0.050	<0.50	0.052	0.48	<0.0050	<0.0050	0.55	13.9	14.9	0.111	<0.00010	0.00034	0.00453	<0.000020
Creek 661	661-03	Surface	Primary	VA23B0766-004	5/15/2023	<0.050	<0.50	0.044	0.49	<0.0050	<0.0050	<0.50	16.9	16.5	0.157	<0.00010	0.00035	0.00516	<0.000020
Creek 661	661-03	Surface	Primary	VA23B0222-001	5/9/2023	<0.050	<0.50	0.039	0.43	<0.0050	<0.0050	0.71	22.4	23.6	0.25	<0.00010	0.0003	0.00493	<0.000020
Creek 661	661-03	Surface	Duplicate	VA23B0222-002	5/9/2023	<0.050	<0.50	0.04	0.44	<0.0050	<0.0050	0.54	22.6	22.6	0.237	<0.00010	0.00032	0.00475	<0.000020
Creek 661	661-03	Surface	Primary	VA23A9531-006	5/1/2023	<0.050	<0.50	0.046	0.96	<0.0050	<0.0050	<0.50	20.1	20.1	0.315	<0.00010	0.00046	0.00661	0.000021
Creek 661	661-03	Surface	Primary	VA23A8011-002	4/12/2023	<0.050	<0.50	0.043	1.32	<0.0050	<0.0050	<0.50	7.8	7.74	0.0899	<0.00010	0.00035	0.00524	<0.000020
Creek 661	661-03	Surface	Primary	VA23A5501-001	3/13/2023	<0.050	<0.50	0.047	1.86	<0.0050	<0.0050	<0.50	7.68	8.03	0.0846	<0.00010	0.00032	0.00553	<0.000020
Creek 661	661-03	Surface	Primary	VA23A2712-002	2/1/2023	<0.050	<0.50	0.034	3.16	<0.0050	<0.0050	<0.50	11.4	11.6	0.149	<0.00010	0.00037	0.00619	<0.000020
Creek 661	661-10	Surface	Primary	VA23C9238-002	12/4/2023	<0.050	0.57	0.042	2.58	<0.0050	<0.0050	<0.50	3.93	4.07	0.0784	<0.00010	0.00078	0.00514	<0.000020
Creek 661	661-10	Surface	Primary	VA23C6622-001	11/2/2023	<0.050	0.51	0.044	1.83	<0.0050	<0.0050	<0.50	3.32	3.76	0.0422	<0.00010	0.00091	0.0051	<0.000020
Creek 661	661-10	Surface	Primary	VA23C5577-002	10/23/2023	<0.050	0.8	0.038	2.1	<0.0050	<0.0050	<0.50	5.27	5.14	0.0408	<0.00010	0.00094	0.00446	<0.000020
Creek 661	661-10	Surface	Duplicate	VA23C5577-003	10/23/2023	<0.050	0.8	0.039	2.09	<0.0050	<0.0050	<0.50	6	5.58	0.0346	<0.00010	0.00098	0.00454	<0.000020
Creek 661	661-10	Surface	Primary	VA23C4865-005	10/16/2023	<0.050	0.73	0.057	1.9	<0.0050	<0.0050	<0.50	5.57	5.14	0.045	<0.00010	0.00116	0.005	<0.000020
Creek 661	661-10	Surface	Primary	VA23C4279-003	10/10/2023	<0.050	0.63	0.051	1.73	<0.0050	<0.0050	<0.50	6.43	5.95	0.0407	<0.00010	0.00122	0.00515	<0.000020
Creek 661	661-10	Surface	Primary	VA23C3847-003	10/3/2023	<0.050	0.5	0.049	1.43	<0.0050	<0.0050	<0.50	4.96	5.59	0.0408	<0.00010	0.00116	0.00484	<0.000020
Creek 661	661-10	Surface	Primary	VA23C0875-001	9/4/2023	<0.050	<0.50	0.045	1.37	<0.0050	<0.0050	<0.50	6.57	6.57	0.0469	<0.00010	0.00134	0.00511	<0.000020
Creek 661	661-10	Surface	Primary	VA23B9359-001	8/17/2023	<0.050	<0.50	0.046	1.34	<0.0050	<0.0050	<0.50	6.82	6.62	0.0702	<0.00010	0.0013	0.00534	<0.000020
Creek 661	661-10	Surface	Primary	VA23B7293-001	7/25/2023	<0.050	0.61	0.046	3.49	<0.0050	<0.0050	<0.50	7.47	8.13	0.124	<0.00010	0.00125	0.00563	<0.000020
Creek 661	661-10	Surface	Primary	VA23B3987-001	6/19/2023	<0.050	<0.50	0.039	1.24	<0.0050	<0.0050	<0.50	6.52	7.22	0.146	<0.00010	0.00099	0.00486	<0.000020
Creek 661	661-10	Surface	Primary	VA23B2052-001	5/29/2023	<0.050	<0.50	0.038	1.6	<0.0050	<0.0050	<0.50	9.11	9.09	0.138	<0.00010	0.00084	0.00376	<0.000020
Creek 661	661-10	Surface	Primary	VA23B1529-002	5/23/2023	<0.050	<0.50	0.036	1.51	<0.0050	<0.0050	0.51	9.8	9.78	0.239	<0.00010	0.00075	0.00407	0.000022
Creek 661	661-10	Surface	Primary	VA23B0766-003	5/15/2023	<0.050	<0.50	0.033	1.5	<0.0050	<0.0050	0.53	12.1	13.6	0.278	<0.00010	0.00075	0.00396	0.00003
Creek 661	661-10	Surface	Primary	VA23B0222-003	5/9/2023	<0.050	<0.50	0.028	1.45	<0.0050	<0.0050	0.57	16.2	16.9	0.551	0.00013	0.00076	0.00606	0.000042
Creek 661	661-10	Surface	Primary	VA23A9531-001	5/1/2023	<0.050	0.97	0.043	2.74	<0.0050	<0.0050	<0.50	16.4	16.8	0.587	0.0001	0.00118	0.00892	0.000035
Creek 661	661-10	Surface	Primary	VA23A8011-001	4/12/2023	<0.050	<0.50	0.053	2.23	<0.0050	<0.0050	<0.50	2.85	2.72	0.0406	<0.00010	0.00097	0.0045	<0.000020

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Anions and Nutrients *(cont'd)*				Cyanides			Organic/Inorganic Carbon		Total Metals				
						Bromide (Br)	Chloride (Cl)	Fluoride (F)	Sulfate (SO4)	Cyanide, Total	Cyanide, Weak Acid Diss	Thiocyanate	Dissolved Organic Carbon	Total Organic Carbon	Aluminum (Al)-Total	Antimony (Sb)-Total	Arsenic (As)-Total	Barium (Ba)-Total	Beryllium (Be)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Creek 661	661-10	Surface	Duplicate	VA23A8011-005	4/12/2023	<0.050	<0.50	0.051	2.2	<0.0050	<0.0050	<0.50	2.78	2.56	0.037	<0.00010	0.00094	0.00444	<0.000020
Creek 661	661-10	Surface	Primary	VA23A5501-002	3/13/2023	<0.050	<0.50	0.061	2.16	<0.0050	<0.0050	<0.50	2.25	2.4	0.0373	<0.00010	0.00102	0.00456	<0.000020
Creek 661	661-10	Surface	Primary	VA23A2712-001	2/1/2023	<0.050	<0.50	0.053	2.06	<0.0050	<0.0050	<0.50	3.58	3.61	0.0456	<0.00010	0.00096	0.00472	<0.000020
Creek 661	661-10	Surface	Primary	VA23A0821-002	1/11/2023	<0.050	<0.50	0.047	1.54	<0.0050	<0.0050	<0.50	3.13	3.08	0.0641	<0.00010	0.001	0.00513	<0.000020
Creek 661	661-20	Surface	Primary	VA23C6622-005	11/2/2023	<0.050	<0.50	0.058	2.16	<0.0050	<0.0050	<0.50	2.59	2.66	0.0234	<0.00010	0.00099	0.00722	<0.000020
Creek 661	661-20	Surface	Duplicate	VA23C6622-006	11/2/2023	<0.050	<0.50	0.057	2.16	<0.0050	<0.0050	<0.50	2.57	2.58	0.0213	<0.00010	0.00094	0.00707	<0.000020
Creek 661	661-20	Surface	Primary	VA23C0762-004	8/31/2023	<0.050	<0.50	0.063	1.78	<0.0050	<0.0050	<0.50	4.56	4.44	0.0305	<0.00010	0.00114	0.00772	<0.000020
Creek 661	661-20	Surface	Primary	VA23B7293-004	7/25/2023	<0.050	<0.50	0.061	1.08	<0.0050	<0.0050	<0.50	8.41	8.35	0.112	<0.00010	0.00124	0.00798	<0.000020
Creek 661	661-20	Surface	Primary	VA23B3987-003	6/19/2023	<0.050	<0.50	0.051	1.37	<0.0050	<0.0050	<0.50	5.61	6.36	0.217	<0.00010	0.0012	0.00899	<0.000020
Creek 661	661-20	Surface	Primary	VA23A9531-002	5/1/2023	<0.050	0.75	0.048	2.35	<0.0050	<0.0050	0.5	17.7	18.6	0.637	<0.00010	0.00157	0.0118	0.000036
Creek 661	661-20	Surface	Primary	VA23A8011-004	4/12/2023	<0.050	<0.50	0.06	2.25	<0.0050	<0.0050	<0.50	7.21	6.6	0.192	0.00012	0.00088	0.00713	<0.000020
Creek 661	661-20	Surface	Primary	VA23A5501-003	3/13/2023	<0.050	<0.50	0.068	2.62	<0.0050	<0.0050	<0.50	2.4	2.37	0.0228	<0.00010	0.00087	0.0067	<0.000020
Creek 661	661-20	Surface	Primary	VA23A2670-002	2/4/2023	<0.050	<0.50	0.06	2.56	<0.0050	<0.0050	<0.50	3.88	3.3	0.0294	<0.00010	0.00089	0.00636	<0.000020
Creek 661	661-20	Surface	Primary	VA23A0821-003	1/11/2023	<0.050	<0.50	0.056	2.48	<0.0050	<0.0050	<0.50	3.03	3.26	0.0233	<0.00010	0.00093	0.00694	<0.000020
Creek 661	661-20	Surface	Duplicate	VA23A0821-004	1/11/2023	<0.050	<0.50	0.056	2.47	<0.0050	<0.0050	<0.50	2.87	3.09	0.0222	<0.00010	0.00092	0.00707	<0.000020
Chedakuz Creek	CC-03	Surface	Primary	VA23C9238-003	12/4/2023	<0.050	<0.50	0.066	6.58	<0.0050	<0.0050	<0.50	3.15	3.28	0.0094	<0.00010	0.00067	0.00659	<0.000020
Chedakuz Creek	CC-03	Surface	Primary	VA23C6622-003	11/2/2023	<0.050	<0.50	0.066	6.07	<0.0050	<0.0050	<0.50	3.03	3.02	0.0132	<0.00010	0.00068	0.00697	<0.000020
Chedakuz Creek	CC-03	Surface	Primary	VA23C5577-004	10/23/2023	<0.050	<0.50	0.062	4.8	<0.0050	<0.0050	<0.50	4.2	3.75	0.0064	<0.00010	0.00068	0.00616	<0.000020
Chedakuz Creek	CC-03	Surface	Primary	VA23C4865-001	10/16/2023	<0.050	<0.50	0.081	5.44	<0.0050	<0.0050	<0.50	4.49	3.52	0.009	<0.00010	0.00078	0.00676	<0.000020
Chedakuz Creek	CC-03	Surface	Primary	VA23C4279-001	10/10/2023	<0.050	<0.50	0.076	5.24	<0.0050	<0.0050	<0.50	3.87	4.01	0.0096	<0.00010	0.00077	0.00707	<0.000020
Chedakuz Creek	CC-03	Surface	Primary	VA23C3847-001	10/3/2023	<0.050	<0.50	0.077	5.34	<0.0050	<0.0050	<0.50	4.49	3.96	0.0074	<0.00010	0.00079	0.00719	<0.000020
Chedakuz Creek	CC-03	Surface	Primary	VA23C1491-003	9/11/2023	<0.050	<0.50	0.073	4	<0.0050	<0.0050	<0.50	4.42	4.4	0.0095	<0.00010	0.00089	0.00781	<0.000020
Chedakuz Creek	CC-03	Surface	Primary	VA23C0762-002	8/31/2023	<0.050	<0.50	0.072	3.58	<0.0050	<0.0050	<0.50	5.64	6.44	0.0225	<0.00010	0.00085	0.00749	<0.000020
Chedakuz Creek	CC-03	Surface	Primary	VA23B7293-005	7/25/2023	<0.050	1.65	0.068	3.36	<0.0050	<0.0050	<0.50	7.6	7.76	0.0281	<0.00010	0.00089	0.00736	<0.000020
Chedakuz Creek	CC-03	Surface	Primary	VA23B3987-004	6/19/2023	<0.050	<0.50	0.058	5.46	<0.0050	<0.0050	<0.50	6.35	6.95	0.0351	<0.00010	0.00078	0.00722	<0.000020
Chedakuz Creek	CC-03	Surface	Primary	VA23B2052-003	5/29/2023	<0.050	<0.50	0.064	2.68	<0.0050	<0.0050	<0.50	10.8	10.5	0.0542	<0.00010	0.00073	0.00699	<0.000020
Chedakuz Creek	CC-03	Surface	Primary	VA23B1529-003	5/23/2023	<0.050	<0.50	0.061	2.48	<0.0050	<0.0050	<0.50	9.02	9.65	0.0572	<0.00010	0.00061	0.00683	<0.000020
Chedakuz Creek	CC-03	Surface	Primary	VA23B0766-001	5/15/2023	<0.050	<0.50	0.054	2.05	<0.0050	<0.0050	<0.50	12.1	10.8	0.0917	<0.00010	0.0006	0.00797	<0.000020
Chedakuz Creek	CC-03	Surface	Primary	VA23B0222-004	5/9/2023	<0.050	<0.50	0.053	1.6	<0.0050	<0.0050	<0.50	11.7	12.2	0.146	<0.00010	0.00048	0.00579	<0.000020
Chedakuz Creek	CC-03	Surface	Primary	VA23A9531-004	5/1/2023	<0.050	0.54	0.044	2.92	<0.0050	<0.0050	<0.50	15.1	15.5	0.535	0.00012	0.00066	0.0104	0.000024
Chedakuz Creek	CC-03	Surface	Duplicate	VA23A9531-005	5/1/2023	<0.050	0.57	0.043	2.9	<0.0050	<0.0050	<0.50	15.1	15.6	0.522	<0.00010	0.00067	0.00989	0.000023
Chedakuz Creek	CC-03	Surface	Primary	VA23A8011-003	4/12/2023	<0.050	<0.50	0.064	3.22	<0.0050	<0.0050	<0.50	7.95	8.24	0.0858	<0.00010	0.00063	0.00826	<0.000020
Chedakuz Creek	CC-03	Surface	Primary	VA23A5501-004	3/13/2023	<0.050	<0.50	0.07	3.75	<0.0050	<0.0050	<0.50	6.33	6.78	0.0151	<0.00010	0.00055	0.00915	<0.000020
Chedakuz Creek	CC-03	Surface	Duplicate	VA23A5501-005	3/13/2023	<0.050	<0.50	0.069	3.74	<0.0050	<0.0050	<0.50	6.72	6.87	0.0171	<0.00010	0.00057	0.00929	<0.000020
Chedakuz Creek	CC-03	Surface	Primary	VA23A2712-003	2/1/2023	<0.050	<0.50	0.071	3.9	<0.0050	<0.0050	<0.50	6.73	7.17	0.0192	<0.00010	0.00061	0.00919	<0.000020
Chedakuz Creek	CC-03	Surface	Primary	VA23A0821-001	1/11/2023	<0.050	<0.50	0.068	3.84	<0.0050	<0.0050	<0.50	6.22	6.38	0.0259	<0.00010	0.00077	0.0101	<0.000020
Chedakuz Creek	CC-05	Surface	Primary	VA23C6622-004	11/2/2023	<0.050	<0.50	0.059	3.83	<0.0050	<0.0050	<0.50	2.86	2.98	0.0265	<0.00010	0.00079	0.00726	<0.000020
Chedakuz Creek	CC-05	Surface	Primary	VA23C5577-005	10/23/2023	<0.050	<0.50	0.055	3.11	<0.0050	<0.0050	<0.50	3.42	3.58	0.0126	<0.00010	0.0008	0.00639	<0.000020
Chedakuz Creek	CC-05	Surface	Primary	VA23C4865-002	10/16/2023	<0.050	<0.50	0.077	3.63	<0.0050	<0.0050	<0.50	4.26	3.38	0.0139	<0.00010	0.00084	0.0072	<0.000020
Chedakuz Creek	CC-05	Surface	Primary	VA23C4279-002	10/10/2023	<0.050	<0.50	0.072	3.37	<0.0050	<0.0050	<0.50	4.18	4.31	0.0118	<0.00010	0.00086	0.00721	<0.000020
Chedakuz Creek	CC-05	Surface	Primary	VA23C3847-002	10/3/2023	<0.050	<0.50	0.069	3.41	<0.0050	<0.0050	<0.50	3.34	4.02	0.0127	<0.00010	0.00088	0.00722	<0.000020
Chedakuz Creek	CC-05	Surface	Primary	VA23C0762-001	8/31/2023	<0.050	<0.50	0.064	2.51	<0.0050	<0.0050	<0.50	5.47	6.04	0.0353	<0.00010	0.00096	0.00771	<0.000020
Chedakuz Creek	CC-05	Surface	Duplicate	VA23C0762-003	8/31/2023	<0.050	<0.50	0.066	2.51	<0.0050	<0.0050	<0.50	5.79	5.06	0.134	<0.00010	0.00098	0.00794	<0.000020
Chedakuz Creek	CC-05	Surface	Primary	VA23B2052-004	5/29/2023	<0.050	<0.50	0.061	2.5	<0.0050	<0.0050	<0.50	9.14	10.1	0.0826	<0.00010	0.00075	0.00689	<0.000020
Chedakuz Creek	CC-05	Surface	Primary	VA23B1529-004	5/23/2023	<0.050	<0.50	0.059	2.29	<0.0050	<0.0050	<0.50	9.23	9.33	0.11	<0.00010	0.00072	0.00659	<0.000020
Chedakuz Creek	CC-05	Surface	Primary	VA23B0766-002	5/15/2023	<0.050	<0.50	0.048	1.82	<0.0050	<0.0050	<0.50	12.2	12.9	0.194	<0.00010	0.00068	0.0071	<0.000020

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Anions and Nutrients *(cont'd)*				Cyanides			Organic/Inorganic Carbon		Total Metals				
						Bromide (Br)	Chloride (Cl)	Fluoride (F)	Sulfate (SO4)	Cyanide, Total	Cyanide, Weak Acid Diss	Thiocyanate	Dissolved Organic Carbon	Total Organic Carbon	Aluminum (Al)-Total	Antimony (Sb)-Total	Arsenic (As)-Total	Barium (Ba)-Total	Beryllium (Be)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Chedakuz Creek	CC-05	Surface	Primary	VA23B0222-005	5/9/2023	<0.050	<0.50	0.037	1.55	<0.0050	<0.0050	0.56	14.9	15	0.478	<0.00010	0.00078	0.00758	0.000024
Chedakuz Creek	CC-05	Surface	Primary	VA23A9531-003	5/1/2023	<0.050	0.64	0.043	2.98	<0.0050	<0.0050	<0.50	17	17.2	0.801	<0.00010	0.00106	0.014	0.00003
Chedakuz Creek	CC-05	Surface	Primary	VA23A2712-004	2/1/2023	<0.050	<0.50	0.064	3.39	<0.0050	<0.0050	<0.50	5.84	5.64	0.0138	<0.00010	0.00068	0.00756	<0.000020
Chedakuz Creek	CC-10	Surface	Primary	VA23C6498-005	11/1/2023	<0.050	<0.50	0.05	2.94	<0.0050	<0.0050	<0.50	7.53	7.63	0.0032	<0.00010	0.00058	0.00567	<0.000020
Chedakuz Creek	CC-10	Surface	Primary	VA23B9219-006	8/16/2023	<0.050	<0.50	0.055	3.26	<0.0050	<0.0050	<0.50	8.32	8.4	0.0052	<0.00010	0.00049	0.00562	<0.000020
Chedakuz Creek	CC-10	Surface	Primary	VA23B0508-006	5/11/2023	<0.050	<0.50	0.062	3.46	<0.0050	<0.0050	<0.50	9.3	10.8	0.327	<0.00010	0.00066	0.00931	<0.000020
Chedakuz Creek	CC-10	Surface	Primary	VA23A3177-008	2/8/2023	<0.050	<0.50	0.052	3.67	<0.0050	<0.0050	<0.50	9.31	9.36	<0.0030	<0.00010	0.00055	0.00522	<0.000020
Chedakuz Creek	CC-15	Surface	Primary	VA23C9626-003	12/6/2023	<0.050	<0.50	0.049	3.71	<0.0050	<0.0050	<0.50	5.89	6.05	0.0458	<0.00010	0.00056	0.00744	<0.000020
Chedakuz Creek	CC-15	Surface	Primary	VA23C6498-004	11/1/2023	<0.050	<0.50	0.048	3.19	<0.0050	<0.0050	<0.50	6	6.16	0.0736	<0.00010	0.00061	0.00861	<0.000020
Chedakuz Creek	CC-15	Surface	Primary	VA23C5771-003	10/24/2023	<0.050	0.54	0.05	3.45	<0.0050	<0.0050	<0.50	6.44	7.53	0.0592	<0.00010	0.00064	0.00825	<0.000020
Chedakuz Creek	CC-15	Surface	Primary	VA23C5184-004	10/20/2023	<0.050	<0.50	0.056	3.53	<0.0050	<0.0050	<0.50	6.14	6.47	0.0198	<0.00010	0.00067	0.00879	<0.000020
Chedakuz Creek	CC-15	Surface	Primary	VA23C4458-002	10/11/2023	<0.050	<0.50	0.055	3.09	<0.0050	<0.0050	0.7	6.23	6.5	0.0159	<0.00010	0.00073	0.00854	<0.000020
Chedakuz Creek	CC-15	Surface	Primary	VA23C3871-002	10/4/2023	<0.050	<0.50	0.059	3.51	<0.0050	<0.0050	<0.50	6.25	6.1	0.033	<0.00010	0.00066	0.00821	<0.000020
Chedakuz Creek	CC-15	Surface	Primary	VA23C2546-004	9/20/2023	<0.050	<0.50	0.055	2.75	<0.0050	<0.0050	<5.00	6.46	6.87	0.0441	<0.00010	0.00067	0.008	<0.000020
Chedakuz Creek	CC-15	Surface	Primary	VA23B9868-004	8/23/2023	<0.050	<0.50	0.054	2.85	<0.0050	<0.0050	<0.50	7.59	7.02	0.0657	<0.00010	0.00074	0.00927	<0.000020
Chedakuz Creek	CC-15	Surface	Primary	VA23B7734-006	7/31/2023	<0.050	0.6	0.052	4.45	<0.0050	<0.0050	<0.50	8.1	8.53	0.042	<0.00010	0.00077	0.00818	<0.000020
Chedakuz Creek	CC-15	Surface	Primary	VA23B2847-002	6/6/2023	<0.050	<0.50	0.048	2.65	<0.0050	<0.0050	<0.50	7.98	7.94	0.123	<0.00010	0.00067	0.00838	<0.000020
Chedakuz Creek	CC-15	Surface	Primary	VA23B2219-005	5/30/2023	<0.050	<0.50	0.053	2.8	<0.0050	<0.0050	<0.50	8.86	8.22	0.0456	<0.00010	0.00061	0.00689	<0.000020
Chedakuz Creek	CC-15	Surface	Primary	VA23B1690-003	5/24/2023	<0.050	<0.50	0.055	3.29	<0.0050	<0.0050	<0.50	8.42	8.66	0.0859	<0.00010	0.00064	0.0065	<0.000020
Chedakuz Creek	CC-15	Surface	Primary	VA23B1108-004	5/17/2023	<0.050	<0.50	0.042	2.32	<0.0050	<0.0050	<0.50	10.1	10.2	0.191	<0.00010	0.00065	0.00721	<0.000020
Chedakuz Creek	CC-15	Surface	Primary	VA23B0508-003	5/11/2023	<0.050	<0.50	0.05	3.34	<0.0050	<0.0050	<0.50	12	12	0.257	<0.00010	0.00068	0.00856	<0.000020
Chedakuz Creek	CC-15	Surface	Duplicate	VA23B0508-007	5/11/2023	<0.050	<0.50	0.051	3.38	<0.0050	<0.0050	<0.50	11.4	11.2	0.261	<0.00010	0.00073	0.00848	<0.000020
Chedakuz Creek	CC-15	Surface	Primary	VA23A9782-002	5/3/2023	<0.050	0.72	0.053	4.13	<0.0050	<0.0050	<0.50	15.6	17.6	1.08	0.00012	0.00158	0.0216	0.000045
Chedakuz Creek	CC-15	Surface	Primary	VA23A9207-002	4/26/2023	<0.050	<0.50	0.057	3.42	<0.0050	<0.0050	<0.50	8.58	8.93	0.224	<0.00010	0.00088	0.0112	<0.000020
Chedakuz Creek	CC-15	Surface	Primary	VA23A6844-003	3/27/2023	<0.050	<0.50	0.058	3.86	<0.0050	<0.0050	<0.50	8.51	8.29	0.147	0.00017	0.00077	0.00923	<0.000020
Chedakuz Creek	CC-15	Surface	Primary	VA23A2861-001	2/6/2023	<0.050	<0.50	0.057	3.67	<0.0050	<0.0050	<0.50	8	8.34	0.0162	<0.00010	0.00062	0.00688	<0.000020
Chedakuz Creek	CC-15	Surface	Primary	VA23A1889-002	1/24/2023	<0.050	<0.50	0.054	3.56	0.0058	<0.0050	<0.50	7.49	8.22	0.0356	<0.00010	0.00065	0.00771	<0.000020
Chedakuz Creek	CC-20	Surface	Primary	VA23C9626-002	12/6/2023	<0.050	<0.50	0.051	3.61	<0.0050	<0.0050	<0.50	5.62	5.69	0.0392	<0.00010	0.00056	0.00743	<0.000020
Chedakuz Creek	CC-20	Surface	Primary	VA23C6498-003	11/1/2023	<0.050	<0.50	0.05	3.08	<0.0050	<0.0050	<0.50	5.63	5.89	0.0147	<0.00010	0.00057	0.0079	<0.000020
Chedakuz Creek	CC-20	Surface	Primary	VA23C5771-004	10/24/2023	<0.050	<0.50	0.05	3.32	<0.0050	<0.0050	<0.50	6.18	6.51	0.0366	<0.00010	0.00062	0.00806	<0.000020
Chedakuz Creek	CC-20	Surface	Primary	VA23C5184-005	10/20/2023	<0.050	<0.50	0.056	3.44	<0.0050	<0.0050	<0.50	6.02	6.27	0.0132	<0.00010	0.00066	0.00837	<0.000020
Chedakuz Creek	CC-20	Surface	Primary	VA23C4458-003	10/11/2023	<0.050	<0.50	0.054	2.95	<0.0050	<0.0050	<0.50	7.19	6.07	0.012	<0.00010	0.00068	0.00804	<0.000020
Chedakuz Creek	CC-20	Surface	Primary	VA23C3871-003	10/4/2023	<0.050	<0.50	0.06	3.39	<0.0050	<0.0050	<0.50	6.49	6.08	0.0142	<0.00010	0.00064	0.00841	<0.000020
Chedakuz Creek	CC-20	Surface	Duplicate	VA23C3871-004	10/4/2023	<0.050	<0.50	0.06	3.4	<0.0050	<0.0050	<0.50	6.27	6.18	0.0143	<0.00010	0.00064	0.00773	<0.000020
Chedakuz Creek	CC-20	Surface	Primary	VA23C2546-003	9/20/2023	<0.050	<0.50	0.055	2.72	<0.0050	<0.0050	<5.00	6.25	6.97	0.0391	<0.00010	0.0007	0.0082	<0.000020
Chedakuz Creek	CC-20	Surface	Primary	VA23B9868-005	8/23/2023	<0.050	<0.50	0.052	2.74	<0.0050	<0.0050	<5.00	6.5	6.5	0.0353	<0.00010	0.00068	0.00825	<0.000020
Chedakuz Creek	CC-20	Surface	Primary	VA23B7734-007	7/31/2023	<0.050	0.59	0.052	4.34	<0.0050	<0.0050	<0.50	7.84	8.08	0.0416	<0.00010	0.00076	0.00846	<0.000020
Chedakuz Creek	CC-20	Surface	Primary	VA23B4330-006	6/21/2023	<0.050	<0.50	0.055	3.36	<0.0050	<0.0050	<0.50	8.1	7.98	0.0268	<0.00010	0.00066	0.00676	<0.000020
Chedakuz Creek	CC-20	Surface	Primary	VA23B2219-002	5/30/2023	<0.050	<0.50	0.05	2.77	<0.0050	<0.0050	<0.50	8.9	8.47	0.051	<0.00010	0.00061	0.00696	<0.000020
Chedakuz Creek	CC-20	Surface	Duplicate	VA23B2219-003	5/30/2023	<0.050	<0.50	0.048	2.77	<0.0050	<0.0050	<0.50	9.35	8.59	0.0517	<0.00010	0.00063	0.00684	<0.000020
Chedakuz Creek	CC-20	Surface	Primary	VA23B1690-004	5/24/2023	<0.050	<0.50	0.054	3.26	<0.0050	<0.0050	<0.50	8.5	8.65	0.062	<0.00010	0.00063	0.00634	<0.000020
Chedakuz Creek	CC-20	Surface	Primary	VA23B1108-003	5/17/2023	<0.050	<0.50	0.043	2.31	<0.0050	<0.0050	<0.50	9.96	10.2	0.179	<0.00010	0.00065	0.0071	<0.000020
Chedakuz Creek	CC-20	Surface	Primary	VA23B0508-004	5/11/2023	<0.050	<0.50	0.048	3.3	<0.0050	<0.0050	1.88	12.3	12	0.24	<0.00010	0.00071	0.00844	<0.000020
Chedakuz Creek	CC-20	Surface	Primary	VA23A9782-003	5/3/2023	<0.050	0.73	0.055	4.19	<0.0050	<0.0050	<0.50	15.4	17.4	0.625	<0.00010	0.00119	0.016	0.00003
Chedakuz Creek	CC-20	Surface	Primary	VA23A9076-002	4/25/2023	<0.050	<0.50	0.051	3.15	<0.0050	<0.0050	<0.50	8.62	8.17	0.103	<0.00010	0.00072	0.00891	<0.000020
Chedakuz Creek	CC-20	Surface	Primary	VA23A6844-002	3/27/2023	<0.050	<0.50	0.058	4.14	<0.0050	<0.0050	<0.50	7.82	8.02	0.0499	<0.00010	0.00066	0.00762	<0.000020

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Anions and Nutrients *(cont'd)*				Cyanides			Organic/Inorganic Carbon		Total Metals				
						Bromide (Br)	Chloride (Cl)	Fluoride (F)	Sulfate (SO4)	Cyanide, Total	Cyanide, Weak Acid Diss	Thiocyanate	Dissolved Organic Carbon	Total Organic Carbon	Aluminum (Al)-Total	Antimony (Sb)-Total	Arsenic (As)-Total	Barium (Ba)-Total	Beryllium (Be)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Chedakuz Creek	CC-20	Surface	Primary	VA23A2861-002	2/6/2023	<0.050	<0.50	0.055	3.69	<0.0050	<0.0050	<0.50	7.93	8.18	0.0121	<0.00010	0.0006	0.00686	<0.000020
Chedakuz Creek	CC-20	Surface	Primary	VA23A1412-002	1/18/2023	<0.050	<0.50	0.056	3.7	<0.0050	<0.0050	<0.50	8.12	7.95	0.017	<0.00010	0.00058	0.00714	0.000032
Chedakuz Creek	CC-30	Surface	Primary	VA23C6498-002	11/1/2023	<0.050	<0.50	0.055	3.02	<0.0050	<0.0050	<0.50	5.7	5.97	0.0163	<0.00010	0.00054	0.00939	<0.000020
Chedakuz Creek	CC-30	Surface	Primary	VA23C0393-002	8/29/2023	<0.050	<0.50	0.062	3.26	<0.0050	<0.0050	<0.50	6.62	6.35	0.0174	<0.00010	0.00082	0.00842	<0.000020
Chedakuz Creek	CC-30	Surface	Duplicate	VA23C0393-003	8/29/2023	<0.050	<0.50	0.06	3.25	<0.0050	<0.0050	<0.50	7.22	7.12	0.0297	<0.00010	0.00083	0.00862	<0.000020
Chedakuz Creek	CC-30	Surface	Primary	VA23B0508-001	5/11/2023	<0.050	<0.50	0.05	3.24	<0.0050	<0.0050	<0.50	11.6	12	0.249	<0.00010	0.00066	0.0092	<0.000020
Chedakuz Creek	CC-30	Surface	Primary	VA23A3560-001	2/14/2023	<0.050	0.86	0.068	3.72	<0.0050	<0.0050	<0.50	6.77	7.56	0.0383	<0.00010	0.00069	0.00843	<0.000020
Chedakuz Creek	CC-40	Surface	Primary	VA23C9626-001	12/6/2023	<0.050	<0.50	0.063	4.23	<0.0050	<0.0050	<0.50	5.16	4.98	0.0172	<0.00010	0.00064	0.00908	<0.000020
Chedakuz Creek	CC-40	Surface	Primary	VA23C6498-001	11/1/2023	<0.050	<0.50	0.064	3.77	<0.0050	<0.0050	<0.50	5.38	5.47	0.0343	0.00011	0.00074	0.00972	<0.000020
Chedakuz Creek	CC-40	Surface	Primary	VA23C5771-001	10/24/2023	<0.050	<0.50	0.06	3.66	<0.0050	<0.0050	<0.50	5.97	5.6	0.0445	<0.00010	0.0008	0.00865	<0.000020
Chedakuz Creek	CC-40	Surface	Duplicate	VA23C5771-002	10/24/2023	<0.050	<0.50	0.06	3.62	<0.0050	<0.0050	<0.50	5.63	5.54	0.0717	<0.00010	0.00084	0.009	<0.000020
Chedakuz Creek	CC-40	Surface	Primary	VA23C5184-001	10/20/2023	<0.050	<0.50	0.073	3.91	<0.0050	<0.0050	<0.50	5.43	5.34	0.0099	<0.00010	0.00081	0.00924	<0.000020
Chedakuz Creek	CC-40	Surface	Primary	VA23C4458-001	10/11/2023	<0.050	<0.50	0.071	3.37	<0.0050	<0.0050	<0.50	5.8	5.54	0.0147	<0.00010	0.00093	0.00922	<0.000020
Chedakuz Creek	CC-40	Surface	Primary	VA23C3871-001	10/4/2023	<0.050	<0.50	0.078	3.88	<0.0050	<0.0050	<0.50	5	5.06	0.0096	<0.00010	0.00088	0.00932	<0.000020
Chedakuz Creek	CC-40	Surface	Primary	VA23C2546-005	9/20/2023	<0.050	<0.50	0.07	3.08	<0.0050	<0.0050	<5.00	5.63	5.59	0.0079	<0.00010	0.00086	0.00869	<0.000020
Chedakuz Creek	CC-40	Surface	Primary	VA23C0393-001	8/29/2023	<0.050	<0.50	0.065	3.55	<0.0050	<0.0050	<0.50	6.34	5.94	0.0128	<0.00010	0.00097	0.00844	<0.000020
Chedakuz Creek	CC-40	Surface	Primary	VA23B7523-007	7/27/2023	<0.050	0.66	0.057	5.16	<0.0050	<0.0050	<0.50	8.48	8.53	0.0246	<0.00010	0.00088	0.00832	<0.000020
Chedakuz Creek	CC-40	Surface	Primary	VA23B2847-001	6/6/2023	<0.050	<0.50	0.053	2.65	<0.0050	<0.0050	<0.50	7.26	7.62	0.0474	<0.00010	0.0007	0.00886	<0.000020
Chedakuz Creek	CC-40	Surface	Primary	VA23B2219-001	5/30/2023	<0.050	<0.50	0.058	2.6	<0.0050	<0.0050	<0.50	9.3	8.7	0.32	<0.00010	0.00086	0.011	0.000021
Chedakuz Creek	CC-40	Surface	Primary	VA23B1690-001	5/24/2023	<0.050	<0.50	0.055	3.04	<0.0050	<0.0050	<0.50	8.23	9.04	0.128	<0.00010	0.00068	0.00836	<0.000020
Chedakuz Creek	CC-40	Surface	Primary	VA23B1108-001	5/17/2023	<0.050	<0.50	0.042	2.76	<0.0050	<0.0050	<0.50	9.87	11.3	0.267	<0.00010	0.00066	0.00907	<0.000020
Chedakuz Creek	CC-40	Surface	Duplicate	VA23B1108-002	5/17/2023	<0.050	<0.50	0.042	2.14	<0.0050	<0.0050	<0.50	11.6	11.1	0.27	<0.00010	0.00068	0.00916	0.000025
Chedakuz Creek	CC-40	Surface	Primary	VA23B0508-002	5/11/2023	<0.050	<0.50	0.051	3.32	<0.0050	<0.0050	<0.50	12.4	12.4	0.299	<0.00010	0.00065	0.0104	<0.000020
Chedakuz Creek	CC-40	Surface	Primary	VA23A9782-001	5/3/2023	<0.050	0.75	0.056	4.07	<0.0050	<0.0050	<0.50	14.2	15.7	0.633	<0.00010	0.00124	0.0159	0.000026
Chedakuz Creek	CC-40	Surface	Primary	VA23A9207-001	4/26/2023	<0.050	<0.50	0.064	3.09	<0.0050	<0.0050	<0.50	8.46	7.88	0.171	<0.00010	0.00084	0.0107	<0.000020
Chedakuz Creek	CC-40	Surface	Primary	VA23A6844-001	3/27/2023	<0.050	<0.50	0.068	4.24	<0.0050	<0.0050	<0.50	7.29	7.21	0.027	<0.00010	0.00074	0.00847	<0.000020
Chedakuz Creek	CC-40	Surface	Primary	VA23A3035-001	2/7/2023	<0.050	<0.50	0.065	4.13	<0.0050	<0.0050	<0.50	6.74	7.02	0.0222	<0.00010	0.00066	0.0076	<0.000020
Chedakuz Creek	CC-40	Surface	Primary	VA23A1412-001	1/18/2023	<0.050	<0.50	0.066	4.1	<0.0050	<0.0050	<0.50	7.08	6.88	0.0181	<0.00010	0.00066	0.00856	<0.000020
Creek 705	705-05	Surface	Primary	VA23C9661-004	12/7/2023	<0.050	<0.50	0.023	1.12	<0.0050	<0.0050	<0.50	6.8	6.77	0.0398	<0.00010	0.00026	0.0066	<0.000020
Creek 705	705-05	Surface	Primary	VA23C7190-010	11/9/2023	<0.050	<0.50	0.025	0.94	<0.0050	<0.0050	<0.50	7.7	7.74	0.0682	<0.00010	0.00025	0.00615	<0.000020
Creek 705	705-05	Surface	Duplicate	VA23C7190-011	11/9/2023	<0.050	<0.50	0.021	0.95	<0.0050	<0.0050	<0.50	7.84	8.16	0.081	<0.00010	0.00025	0.00616	<0.000020
Creek 705	705-05	Surface	Primary	VA23C4014-006	10/6/2023	<0.050	<0.50	0.025	0.92	<0.0050	<0.0050	1.6	6.26	6.3	0.0345	<0.00010	0.00031	0.00792	<0.000020
Creek 705	705-05	Surface	Primary	VA23C1674-001	9/12/2023	<0.050	<0.50	0.022	0.94	<0.0050	<0.0050	<0.50	6.88	6.89	0.0559	<0.00010	0.00033	0.0089	<0.000020
Creek 705	705-05	Surface	Primary	VA23B8906-003	8/14/2023	<0.050	<0.50	0.025	0.95	<0.0050	<0.0050	<0.50	8.28	8.64	0.0665	<0.00010	0.00034	0.00822	0.000025
Creek 705	705-05	Surface	Duplicate	VA23B8906-004	8/14/2023	<0.050	<0.50	0.024	0.92	<0.0050	<0.0050	<0.50	8.75	8.6	0.0672	<0.00010	0.00037	0.00819	0.000025
Creek 705	705-05	Surface	Primary	VA23B7523-003	7/27/2023	<0.050	<0.50	0.023	0.44	<0.0050	<0.0050	0.56	14.3	14.8	0.143	<0.00010	0.00028	0.00689	0.000027
Creek 705	705-05	Surface	Primary	VA23B3687-004	6/14/2023	<0.050	<0.50	0.026	0.41	<0.0050	<0.0050	<0.50	6.97	7.06	0.0663	<0.00010	0.00029	0.00555	<0.000020
Creek 705	705-05	Surface	Primary	VA23B0364-002	5/10/2023	<0.050	<0.50	<0.020	0.56	<0.0050	<0.0050	0.61	14.7	14.2	0.219	<0.00010	0.00021	0.00605	0.000035
Creek 705	705-05	Surface	Primary	VA23A8158-003	4/13/2023	<0.050	<0.50	0.031	1.72	<0.0050	<0.0050	<0.50	8.71	8.53	0.146	<0.00010	0.00023	0.00979	<0.000020
Creek 705	705-05	Surface	Primary	VA23A6844-006	3/28/2023	<0.050	<0.50	0.024	0.91	<0.0050	<0.0050	<0.50	6.5	6.48	0.042	<0.00010	0.00025	0.00542	<0.000020
Creek 705	705-05	Surface	Primary	VA23A3268-004	2/9/2023	<0.050	<0.50	0.02	0.8	<0.0050	<0.0050	<0.50	5.93	6.44	0.0349	<0.00010	0.00023	0.00537	<0.000020
Creek 705	705-05	Surface	Primary	VA23A1264-002	1/17/2023	<0.050	<0.50	<0.020	0.79	<0.0050	<0.0050	<0.50	5.81	6	0.0508	<0.00010	0.00025	0.00574	<0.000020
Creek 705	705-10	Surface	Primary	VA23C9661-005	12/7/2023	<0.050	<0.50	0.024	1.29	<0.0050	<0.0050	<0.50	6.18	6.24	0.0302	<0.00010	0.00018	0.00864	<0.000020
Creek 705	705-10	Surface	Primary	VA23C6880-001	11/6/2023	<0.050	0.51	0.022	1.09	<0.0050	<0.0050	<0.50	7.09	7.7	0.0675	<0.00010	0.00021	0.00877	<0.000020
Creek 705	705-10	Surface	Primary	VA23C6383-004	10/31/2023	<0.050	<0.50	0.022	1.36	<0.0050	<0.0050	<0.50	5.16	5.31	0.0209	<0.00010	0.00017	0.00918	<0.000020
Creek 705	705-10	Surface	Duplicate	VA23C6383-006	10/31/2023	<0.050	<0.50	<0.020	2.61	<0.0050	<0.0050	<0.50	1.47	1.46	0.0097	<0.00010	0.00073	0.0041	<0.000020

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Anions and Nutrients *(cont'd)*				Cyanides			Organic/Inorganic Carbon		Total Metals				
						Bromide (Br)	Chloride (Cl)	Fluoride (F)	Sulfate (SO4)	Cyanide, Total	Cyanide, Weak Acid Diss	Thiocyanate	Dissolved Organic Carbon	Total Organic Carbon	Aluminum (Al)-Total	Antimony (Sb)-Total	Arsenic (As)-Total	Barium (Ba)-Total	Beryllium (Be)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Creek 705	705-10	Surface	Primary	VA23C5894-004	10/25/2023	<0.050	<0.50	0.022	1.27	<0.0050	<0.0050	<0.50	5.73	5.54	0.0194	<0.00010	0.00018	0.00889	<0.000020
Creek 705	705-10	Surface	Primary	VA23C4858-004	10/17/2023	<0.050	<0.50	0.027	1.18	<0.0050	<0.0050	<0.50	4.93	5.27	0.0202	<0.00010	0.00017	0.00849	<0.000020
Creek 705	705-10	Surface	Primary	VA23C4586-005	10/14/2023	<0.050	<0.50	0.026	0.98	<0.0050	<0.0050	<0.50	5.21	5.3	0.0184	<0.00010	0.00015	0.00858	<0.000020
Creek 705	705-10	Surface	Primary	VA23C4014-007	10/6/2023	<0.050	<0.50	0.023	1.11	<0.0050	<0.0050	<0.50	5.28	5.32	0.0219	<0.00010	0.00017	0.00872	<0.000020
Creek 705	705-10	Surface	Primary	VA23C1674-002	9/12/2023	<0.050	<0.50	0.03	1.13	<0.0050	<0.0050	<0.50	5.64	5.68	0.0255	<0.00010	0.00021	0.00872	<0.000020
Creek 705	705-10	Surface	Primary	VA23B8906-002	8/14/2023	<0.050	<0.50	0.026	0.94	<0.0050	<0.0050	<0.50	7.52	7.73	0.049	<0.00010	0.00024	0.00891	<0.000020
Creek 705	705-10	Surface	Primary	VA23B7523-002	7/27/2023	<0.050	<0.50	0.025	0.44	<0.0050	<0.0050	0.55	13.6	13.8	0.132	<0.00010	0.00028	0.00786	0.000021
Creek 705	705-10	Surface	Primary	VA23B3687-005	6/14/2023	<0.050	<0.50	0.028	0.96	<0.0050	<0.0050	<0.50	6.99	7.22	0.0499	<0.00010	0.00019	0.00856	<0.000020
Creek 705	705-10	Surface	Primary	VA23B2224-004	5/31/2023	<0.050	<0.50	0.029	1.09	<0.0050	<0.0050	<0.50	9.22	8.98	0.0955	<0.00010	0.00025	0.00731	0.000022
Creek 705	705-10	Surface	Primary	VA23B1379-005	5/22/2023	<0.050	<0.50	0.024	0.9	<0.0050	<0.0050	0.52	10.7	10.5	0.143	<0.00010	0.00023	0.00737	0.000027
Creek 705	705-10	Surface	Primary	VA23B0766-009	5/16/2023	<0.050	<0.50	<0.020	0.6	<0.0050	<0.0050	0.56	13.3	13	0.256	<0.00010	0.00024	0.00717	0.000035
Creek 705	705-10	Surface	Primary	VA23B0364-003	5/10/2023	<0.050	<0.50	0.02	0.78	<0.0050	<0.0050	<0.50	16.2	16.2	0.297	<0.00010	0.00026	0.00793	0.00004
Creek 705	705-10	Surface	Primary	VA23A9638-001	5/2/2023	<0.050	<0.50	0.022	0.84	<0.0100	<0.0100	0.6	23.6	23.1	0.535	<0.00010	0.00032	0.0122	0.000041
Creek 705	705-10	Surface	Primary	VA23A8158-001	4/13/2023	<0.050	<0.50	0.028	1.83	<0.0050	<0.0050	<0.50	8.07	7.89	0.106	<0.00010	0.00022	0.00976	<0.000020
Creek 705	705-10	Surface	Duplicate	VA23A8158-002	4/13/2023	<0.050	<0.50	0.031	1.73	<0.0050	<0.0050	<0.50	7.95	8.14	0.106	<0.00010	0.00019	0.00954	<0.000020
Creek 705	705-10	Surface	Primary	VA23A6844-005	3/27/2023	<0.050	<0.50	0.028	1.5	<0.0050	<0.0050	<0.50	6.33	5.64	0.0423	<0.00010	0.00019	0.00842	<0.000020
Creek 705	705-10	Surface	Primary	VA23A3268-005	2/9/2023	<0.050	<0.50	0.025	1.2	<0.0050	<0.0050	<0.50	6.01	6.18	0.0536	<0.00010	0.00016	0.00781	<0.000020
Creek 705	705-10	Surface	Primary	VA23A1264-003	1/17/2023	<0.050	<0.50	0.025	1.22	<0.0050	<0.0050	<0.50	7.28	7.21	0.0881	<0.00010	0.00021	0.00844	<0.000020
Fawnie Creek	FC-01	Surface	Primary	VA23C9661-006	12/7/2023	<0.050	<0.50	0.023	2.6	<0.0050	<0.0050	<0.50	1.21	1.28	0.0076	<0.00010	0.00085	0.00423	<0.000020
Fawnie Creek	FC-01	Surface	Primary	VA23C6880-002	11/6/2023	<0.050	<0.50	0.025	2.3	<0.0050	<0.0050	<0.50	1.55	1.43	0.009	<0.00010	0.0008	0.00383	<0.000020
Fawnie Creek	FC-01	Surface	Primary	VA23C6383-005	10/31/2023	<0.050	<0.50	0.021	1.38	<0.0050	<0.0050	<0.50	5.45	5.49	0.0201	<0.00010	0.00016	0.00922	<0.000020
Fawnie Creek	FC-01	Surface	Primary	VA23C5894-005	10/25/2023	<0.050	<0.50	<0.020	2.47	<0.0050	<0.0050	<0.50	1.82	2.19	0.01	<0.00010	0.0007	0.00403	<0.000020
Fawnie Creek	FC-01	Surface	Primary	VA23C4858-005	10/17/2023	<0.050	<0.50	0.022	2.45	<0.0050	<0.0050	<0.50	1.67	1.42	0.0262	<0.00010	0.00089	0.00404	<0.000020
Fawnie Creek	FC-01	Surface	Duplicate	VA23C4858-006	10/17/2023	<0.050	<0.50	0.022	2.44	<0.0050	<0.0050	<0.50	1.6	1.63	0.014	<0.00010	0.00087	0.00393	<0.000020
Fawnie Creek	FC-01	Surface	Primary	VA23C4586-006	10/14/2023	<0.050	<0.50	0.023	2.19	<0.0050	<0.0050	<0.50	1.59	2.1	0.009	<0.00010	0.0008	0.00412	<0.000020
Fawnie Creek	FC-01	Surface	Primary	VA23C4014-008	10/6/2023	<0.050	<0.50	0.02	2.4	<0.0050	<0.0050	<0.50	1.57	1.99	0.0094	<0.00010	0.00081	0.00428	<0.000020
Fawnie Creek	FC-01	Surface	Primary	VA23C0875-004	9/4/2023	<0.050	<0.50	0.025	2.1	<0.0050	<0.0050	<0.50	1.48	1.6	0.0164	<0.00010	0.00081	0.00466	<0.000020
Fawnie Creek	FC-01	Surface	Primary	VA23B8906-001	8/14/2023	<0.050	<0.50	0.022	1.64	<0.0050	<0.0050	<0.50	2.99	3.42	0.021	<0.00010	0.00077	0.00378	<0.000020
Fawnie Creek	FC-01	Surface	Primary	VA23B7523-001	7/27/2023	<0.050	<0.50	0.02	1.43	<0.0050	<0.0050	<0.50	4.56	4.84	0.0287	<0.00010	0.00085	0.00352	<0.000020
Fawnie Creek	FC-01	Surface	Primary	VA23B4330-001	6/21/2023	<0.050	<0.50	<0.020	1.34	<0.0050	<0.0050	<0.50	5.33	5.63	0.0536	<0.00010	0.00061	0.0028	<0.000020
Fawnie Creek	FC-01	Surface	Primary	VA23B2224-003	5/31/2023	<0.050	<0.50	<0.020	1.52	<0.0050	<0.0050	<0.50	5.04	4.65	0.0579	<0.00010	0.00059	0.00249	<0.000020
Fawnie Creek	FC-01	Surface	Primary	VA23B1379-006	5/22/2023	<0.050	<0.50	<0.020	1.29	<0.0050	<0.0050	<0.50	7.17	7.1	0.148	<0.00010	0.00045	0.00248	<0.000020
Fawnie Creek	FC-01	Surface	Primary	VA23B0766-006	5/15/2023	<0.050	<0.50	<0.020	0.98	<0.0050	<0.0050	<0.50	10.4	10.4	1.03	<0.00010	0.00086	0.0099	0.000034
Fawnie Creek	FC-01	Surface	Primary	VA23B0364-004	5/10/2023	<0.050	<0.50	<0.020	1.56	<0.0050	<0.0050	<0.50	10.8	10.4	0.226	<0.00010	0.00046	0.0028	<0.000020
Fawnie Creek	FC-01	Surface	Primary	VA23A9638-002	5/2/2023	<0.050	<0.50	0.026	2.68	<0.0050	<0.0050	<0.50	7.18	7.88	0.468	<0.00010	0.00118	0.00804	<0.000020
Fawnie Creek	FC-01	Surface	Primary	VA23A8158-005	4/13/2023	<0.050	<0.50	0.033	3.08	<0.0050	<0.0050	<0.50	1.56	0.78	0.011	<0.00010	0.00103	0.00474	<0.000020
Fawnie Creek	FC-01	Surface	Primary	VA23A6844-004	3/27/2023	<0.050	<0.50	0.028	3.15	<0.0050	<0.0050	<0.50	1.21	1.2	0.0368	0.00013	0.00104	0.00483	<0.000020
Fawnie Creek	FC-01	Surface	Primary	VA23A3268-006	2/9/2023	<0.050	<0.50	0.024	2.9	<0.0050	<0.0050	<0.50	1.03	1.2	0.0084	<0.00010	0.0009	0.00442	<0.000020
Fawnie Creek	FC-01	Surface	Duplicate	VA23A3268-007	2/9/2023	<0.050	<0.50	0.024	3.13	<0.0050	<0.0050	<0.50	1.16	1.4	0.0081	<0.00010	0.00088	0.00428	<0.000020
Fawnie Creek	FC-01	Surface	Primary	VA23A1264-001	1/17/2023	<0.050	<0.50	0.023	2.74	<0.0050	<0.0050	<0.50	1.1	1.04	0.0123	<0.00010	0.00098	0.00454	<0.000020
Field Blank	-	-	-	VA23C9661-007	12/7/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	<0.50	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Field Blank	-	-	-	VA23C6498-007	11/1/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	<0.50	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Field Blank	-	-	-	VA23C5771-006	10/24/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	<0.50	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Field Blank	-	-	-	VA23C5184-006	10/20/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	<0.50	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Field Blank	-	-	-	VA23C4458-005	10/11/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	<0.50	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Field Blank	-	-	-	VA23C3871-005	10/4/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	<0.50	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Anions and Nutrients *(cont'd)*				Cyanides			Organic/Inorganic Carbon		Total Metals				
						Bromide (Br)	Chloride (Cl)	Fluoride (F)	Sulfate (SO4)	Cyanide, Total	Cyanide, Weak Acid Diss	Thiocyanate	Dissolved Organic Carbon	Total Organic Carbon	Aluminum (Al)-Total	Antimony (Sb)-Total	Arsenic (As)-Total	Barium (Ba)-Total	Beryllium (Be)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Field Blank	-	-	-	VA23C1854-004	9/13/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	<0.50	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Field Blank	-	-	-	VA23B8906-009	8/15/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	<0.50	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Field Blank	-	-	-	VA23B7293-002	7/25/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	0.52	0.51	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Field Blank	-	-	-	VA23B4330-008	6/21/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	<0.50	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Field Blank	-	-	-	VA23B2219-006	5/30/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	<0.50	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Field Blank	-	-	-	VA23B1379-003	5/22/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	<0.50	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Field Blank	-	-	-	VA23B1108-006	5/17/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	<0.50	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Field Blank	-	-	-	VA23B0222-007	5/9/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	<0.50	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Field Blank	-	-	-	VA23A9893-005	5/4/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	<0.50	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Field Blank	-	-	-	VA23A7852-006	4/11/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	<0.50	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Field Blank	-	-	-	VA23A6097-006	3/20/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	<0.50	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Field Blank	-	-	-	VA23A3035-002	2/7/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	<0.50	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Field Blank	-	-	-	VA23A1261-004	1/17/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	<0.50	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Travel Blank	-	-	-	VA23D0165-001	12/14/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	-	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Travel Blank	-	-	-	VA23C7190-012	11/9/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	-	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Travel Blank	-	-	-	VA23C5894-006	10/25/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	-	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Travel Blank	-	-	-	VA23C5184-007	10/20/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	-	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Travel Blank	-	-	-	VA23C5293-008	10/19/2023	<0.050	0.88	<0.020	<0.30	<0.0050	<0.0050	<0.50	-	<0.50	0.115	<0.00010	0.00059	0.00471	<0.000020
Travel Blank	-	-	-	VA23C4586-007	10/14/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	-	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Travel Blank	-	-	-	VA23C4014-012	10/6/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	-	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Travel Blank	-	-	-	VA23C2546-006	9/20/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	-	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Travel Blank	-	-	-	VA23C0762-005	8/31/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	-	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Travel Blank	-	-	-	VA23B7734-008	7/31/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	-	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Travel Blank	-	-	-	VA23B4330-009	6/21/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	-	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Travel Blank	-	-	-	VA23B2224-005	5/31/2023	<0.050	<0.50	<0.020	<0.30	-	-	-	-	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Travel Blank	-	-	-	VA23B1690-012	5/24/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	-	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Travel Blank	-	-	-	VA23B1108-007	5/17/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	-	-	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Travel Blank	-	-	-	VA23A9893-006	5/4/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	-	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Travel Blank	-	-	-	VA23A9322-002	4/28/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	-	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Travel Blank	-	-	-	VA23A6844-009	3/28/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	-	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Travel Blank	-	-	-	VA23A4552-003	2/28/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	-	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020
Travel Blank	-	-	-	VA23A1890-005	1/25/2023	<0.050	<0.50	<0.020	<0.30	<0.0050	<0.0050	<0.50	-	<0.50	<0.0030	<0.00010	<0.00010	<0.00010	<0.000020

Notes:
"-" indicates parameter was not analyzed.
"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*												
						Bismuth (Bi)-Total	Boron (B)-Total	Cadmium (Cd)-Total	Calcium (Ca)-Total	Chromium (Cr)-Total	Cobalt (Co)-Total	Copper (Cu)-Total	Iron (Fe)-Total	Lead (Pb)-Total	Lithium (Li)-Total	Magnesium (Mg)-Total	Manganese (Mn)-Total	Mercury (Hg)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23C6622-009	11/2/2023	<0.000050	<0.010	<0.0000050	20	<0.00050	<0.00010	<0.00050	0.046	<0.000050	<0.0010	5.72	0.0635	<0.0000050
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23C6622-008	11/2/2023	<0.000050	<0.010	<0.0000050	20	<0.00050	<0.00010	<0.00050	0.048	<0.000050	<0.0010	5.57	0.0648	<0.0000050
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23C6622-007	11/2/2023	<0.000050	<0.010	<0.0000050	20	<0.00050	<0.00010	<0.00050	0.046	<0.000050	<0.0010	5.7	0.0654	<0.0000050
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23C1854-001	9/13/2023	<0.000050	<0.010	<0.0000050	20.6	<0.00050	<0.00010	<0.00050	0.06	<0.000050	<0.0010	5.45	0.0832	<0.0000050
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23C1854-002	9/13/2023	<0.000050	<0.010	<0.0000050	20.2	<0.00050	<0.00010	<0.00050	0.053	<0.000050	<0.0010	5.42	0.0677	<0.0000050
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23C1854-003	9/13/2023	<0.000050	<0.010	<0.0000050	19.7	<0.00050	<0.00010	<0.00050	0.064	<0.000050	<0.0010	5.24	0.117	<0.0000050
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23B2052-008	5/29/2023	<0.000050	<0.010	<0.0000050	19.1	<0.00050	<0.00010	<0.00050	0.023	<0.000050	<0.0010	5.32	0.0228	<0.0000050
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23B2052-007	5/29/2023	<0.000050	<0.010	<0.0000050	19.2	<0.00050	<0.00010	<0.00050	0.033	<0.000050	<0.0010	5.13	0.0356	<0.0000050
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23B2052-006	5/29/2023	<0.000050	<0.010	<0.0000050	20	<0.00050	<0.00010	<0.00050	0.278	<0.000050	<0.0010	5.33	0.354	0.0000063
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23A3692-003	2/15/2023	<0.000050	<0.010	<0.0000050	19.8	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	5.4	0.00421	<0.0000050
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23A3692-002	2/15/2023	<0.000050	<0.010	<0.0000050	19.1	<0.00050	<0.00010	<0.00050	0.013	<0.000050	<0.0010	5.21	0.0198	<0.0000050
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23A3692-001	2/15/2023	<0.000050	<0.010	<0.0000050	20.5	<0.00050	<0.00010	<0.00050	0.261	<0.000050	<0.0010	5.61	0.556	<0.0000050
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23C5293-003	10/19/2023	<0.000050	<0.010	<0.0000050	21.2	<0.00050	<0.00010	<0.00050	0.013	<0.000050	<0.0010	4.89	0.00688	<0.0000050
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23C5293-002	10/19/2023	<0.000050	<0.010	<0.0000050	20.4	<0.00050	<0.00010	<0.00050	0.015	<0.000050	<0.0010	4.78	0.00888	<0.0000050
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23C5293-001	10/19/2023	<0.000050	<0.010	<0.0000050	20.4	<0.00050	<0.00010	<0.00050	0.044	<0.000050	<0.0010	4.93	0.13	<0.0000050
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23C0266-003	8/28/2023	<0.000050	<0.010	<0.0000050	18.4	<0.00050	<0.00010	<0.00050	0.01	<0.000050	<0.0010	4.75	0.00386	0.000009
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23C0266-002	8/28/2023	<0.000050	<0.010	<0.0000050	18.9	<0.00050	<0.00010	<0.00050	0.015	<0.000050	<0.0010	4.81	0.00911	<0.0000050
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23C0266-001	8/28/2023	<0.000050	<0.010	<0.0000050	19.8	<0.00050	<0.00010	<0.00050	0.059	<0.000050	<0.0010	4.77	0.253	0.0000088
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23B1690-011	5/24/2023	<0.000050	<0.010	<0.0000050	18.4	<0.00050	<0.00010	<0.00050	0.031	<0.000050	<0.0010	4.3	0.00342	<0.0000050
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23B1690-010	5/24/2023	<0.000050	<0.010	<0.0000050	19.1	<0.00050	<0.00010	<0.00050	0.032	<0.000050	<0.0010	4.39	0.00542	<0.0000050
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23B1690-009	5/24/2023	<0.000050	<0.010	<0.0000050	20	<0.00050	<0.00010	<0.00050	0.026	<0.000050	<0.0010	4.45	0.0142	<0.0000050
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23A3177-007	2/8/2023	<0.000050	<0.010	<0.0000050	19.6	<0.00050	<0.00010	<0.00050	0.013	<0.000050	<0.0010	4.67	0.00238	<0.0000050
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23A3177-006	2/8/2023	<0.000050	<0.010	<0.0000050	18.8	<0.00050	<0.00010	<0.00050	0.015	<0.000050	<0.0010	4.48	0.00524	<0.0000050
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23A3177-005	2/8/2023	<0.000050	<0.010	<0.0000050	19.4	<0.00050	<0.00010	<0.00050	0.082	<0.000050	<0.0010	4.64	0.0415	<0.0000050
Davidson Creek	DC-05	Surface	Primary	VA23D0155-002	12/15/2023	<0.000050	<0.010	0.0000057	11.2	0.00073	<0.00010	<0.00050	0.212	0.000092	<0.0010	2.24	0.00816	<0.0000050
Davidson Creek	DC-05	Surface	Primary	VA23C7190-002	11/8/2023	<0.000050	<0.010	0.0000068	9.65	0.0005	0.00014	0.00064	0.429	0.000232	<0.0010	2	0.0139	0.0000078
Davidson Creek	DC-05	Surface	Primary	VA23C6383-003	10/31/2023	<0.000050	<0.010	<0.0000050	12.4	<0.00050	<0.00010	<0.00050	0.165	0.000064	<0.0010	2.58	0.0102	<0.0000050
Davidson Creek	DC-05	Surface	Primary	VA23C5894-001	10/25/2023	<0.000050	<0.010	<0.0000050	14	<0.00050	<0.00010	<0.00050	0.228	0.000095	<0.0010	2.71	0.00804	<0.0000050
Davidson Creek	DC-05	Surface	Primary	VA23C4858-003	10/16/2023	<0.000050	<0.010	<0.0000050	12.3	<0.00050	<0.00010	<0.00050	0.134	<0.000050	<0.0010	2.44	0.00473	<0.0000050
Davidson Creek	DC-05	Surface	Primary	VA23C4586-001	10/14/2023	<0.000050	<0.010	<0.0000050	12.2	<0.00050	<0.00010	0.00055	0.157	0.000061	<0.0010	2.38	0.00499	<0.0000050
Davidson Creek	DC-05	Surface	Duplicate	VA23C4586-002	10/14/2023	<0.000050	<0.010	<0.0000050	12.1	<0.00050	<0.00010	<0.00050	0.135	0.000061	<0.0010	2.36	0.00481	<0.0000050
Davidson Creek	DC-05	Surface	Primary	VA23C4014-002	10/5/2023	<0.000050	<0.010	0.0000077	10.5	0.00052	0.0001	0.00053	0.356	0.000142	<0.0010	2.13	0.0105	<0.0000050
Davidson Creek	DC-05	Surface	Primary	VA23C0875-003	9/4/2023	<0.000050	<0.010	<0.0000050	11	<0.00050	<0.00010	<0.00050	0.075	<0.000050	<0.0010	2.09	0.00422	<0.0000050
Davidson Creek	DC-05	Surface	Primary	VA23B9219-002	8/16/2023	<0.000050	<0.010	0.0000081	9.9	<0.00050	<0.00010	<0.00050	0.217	<0.000050	<0.0010	1.8	0.00657	<0.0000050
Davidson Creek	DC-05	Surface	Primary	VA23B7293-008	7/25/2023	<0.000050	<0.010	0.0000109	10	<0.00050	0.00011	0.00061	0.155	<0.000050	<0.0010	1.96	0.0116	<0.0000050
Davidson Creek	DC-05	Surface	Primary	VA23B4181-003	6/21/2023	<0.000050	<0.010	<0.0000050	6.54	<0.00050	<0.00010	<0.00050	0.09	<0.000050	<0.0010	1.26	0.00414	<0.0000050
Davidson Creek	DC-05	Surface	Primary	VA23B2052-005	5/29/2023	<0.000050	<0.010	0.0000073	4.96	<0.00050	<0.00010	<0.00050	0.092	<0.000050	<0.0010	0.989	0.00505	0.0000052
Davidson Creek	DC-05	Surface	Primary	VA23B1529-005	5/23/2023	<0.000050	<0.010	0.0000071	4.06	<0.00050	<0.00010	0.00054	0.114	<0.000050	<0.0010	0.77	0.00662	0.0000064
Davidson Creek	DC-05	Surface	Primary	VA23B0766-010	5/16/2023	<0.000050	<0.010	0.0000087	2.94	<0.00050	<0.00010	0.00056	0.161	<0.000050	<0.0010	0.555	0.00678	0.0000104
Davidson Creek	DC-05	Surface	Primary	VA23B0222-006	5/9/2023	<0.000050	<0.010	0.0000133	3.58	<0.00050	<0.00010	0.00085	0.339	0.000117	<0.0010	0.735	0.0169	0.0000112
Davidson Creek	DC-05	Surface	Primary	VA23A9893-002	5/4/2023	<0.000050	<0.010	0.0000185	4.88	0.00071	0.00014	0.00107	0.548	0.000219	<0.0010	1.02	0.0293	0.0000156
Davidson Creek	DC-05	Surface	Primary	VA23A7852-002	4/11/2023	<0.000050	<0.010	<0.0000050	15.7	<0.00050	<0.00010	<0.00050	0.03	<0.000050	<0.0010	3.21	0.00196	<0.0000050
Davidson Creek	DC-05	Surface	Primary	VA23A5627-002	3/14/2023	<0.000050	<0.010	<0.0000050	15.1	<0.00050	<0.00010	<0.00050	0.03	<0.000050	<0.0010	3.13	0.00218	<0.0000050
Davidson Creek	DC-05	Surface	Primary	VA23A2861-004	2/6/2023	<0.000050	<0.010	<0.0000050	14.3	<0.00050	<0.00010	<0.00050	0.037	<0.000050	<0.0010	3.08	0.00264	<0.0000050
Davidson Creek	DC-05	Surface	Primary	VA23A1261-002	1/17/2023	<0.000050	<0.010	<0.0000050	14.9	<0.00050	<0.00010	<0.00050	0.036	<0.000050	<0.0010	2.89	0.00263	<0.0000050
Davidson Creek	DC-05	Surface	Duplicate	VA23A1261-005	1/17/2023	<0.000050	<0.010	<0.0000050	14.8	<0.00050	<0.00010	<0.00050	0.035	<0.000050	<0.0010	2.89	0.00251	<0.0000050

Notes:
"-" indicates parameter was not analyzed.
"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*												
						Bismuth (Bi)-Total	Boron (B)-Total	Cadmium (Cd)-Total	Calcium (Ca)-Total	Chromium (Cr)-Total	Cobalt (Co)-Total	Copper (Cu)-Total	Iron (Fe)-Total	Lead (Pb)-Total	Lithium (Li)-Total	Magnesium (Mg)-Total	Manganese (Mn)-Total	Mercury (Hg)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Davidson Creek	DC-10	Surface	Primary	VA23D0155-003	12/15/2023	<0.000050	<0.010	<0.0000050	11.3	0.00064	<0.00010	<0.00050	0.173	0.000079	<0.0010	2.34	0.00473	<0.0000050
Davidson Creek	DC-10	Surface	Duplicate	VA23D0155-004	12/15/2023	<0.000050	<0.010	<0.0000050	11.4	0.00068	<0.00010	<0.00050	0.167	0.000066	<0.0010	2.38	0.00468	<0.0000050
Davidson Creek	DC-10	Surface	Primary	VA23C7190-003	11/8/2023	<0.000050	<0.010	0.0000073	10	<0.00050	0.00012	0.00057	0.372	0.000192	<0.0010	2.02	0.00956	0.0000063
Davidson Creek	DC-10	Surface	Primary	VA23C4014-003	10/5/2023	<0.000050	<0.010	<0.0000050	11.3	<0.00050	<0.00010	<0.00050	0.187	0.000064	<0.0010	2.25	0.00587	<0.0000050
Davidson Creek	DC-10	Surface	Primary	VA23C2388-003	9/19/2023	<0.000050	<0.010	<0.0000050	11.6	<0.00050	<0.00010	<0.00050	0.067	<0.000050	<0.0010	2.37	0.00367	<0.0000050
Davidson Creek	DC-10	Surface	Primary	VA23B9219-003	8/16/2023	<0.000050	<0.010	0.0000071	10.3	<0.00050	<0.00010	<0.00050	0.182	<0.000050	<0.0010	1.89	0.00546	<0.0000050
Davidson Creek	DC-10	Surface	Primary	VA23B7293-007	7/25/2023	<0.000050	<0.010	0.0000093	10.2	<0.00050	0.00012	0.00061	0.15	0.00005	<0.0010	2	0.0116	<0.0000050
Davidson Creek	DC-10	Surface	Primary	VA23B4181-004	6/21/2023	<0.000050	<0.010	0.0000064	6.93	<0.00050	<0.00010	0.00054	0.087	<0.000050	<0.0010	1.34	0.00432	<0.0000050
Davidson Creek	DC-10	Surface	Primary	VA23A9893-003	5/4/2023	<0.000050	<0.010	0.0000224	5.14	0.00064	0.00014	0.00111	0.547	0.000228	<0.0010	1.03	0.0294	0.0000157
Davidson Creek	DC-10	Surface	Primary	VA23A7852-003	4/11/2023	<0.000050	<0.010	<0.0000050	15.3	<0.00050	<0.00010	<0.00050	0.021	<0.000050	<0.0010	3.22	0.00192	<0.0000050
Davidson Creek	DC-10	Surface	Primary	VA23A5627-003	3/14/2023	<0.000050	<0.010	<0.0000050	15.2	<0.00050	<0.00010	<0.00050	0.022	<0.000050	<0.0010	3.19	0.00295	<0.0000050
Davidson Creek	DC-10	Surface	Primary	VA23A2861-005	2/6/2023	<0.000050	<0.010	<0.0000050	14.2	<0.00050	<0.00010	<0.00050	0.025	<0.000050	<0.0010	3.1	0.00214	<0.0000050
Davidson Creek	DC-10	Surface	Duplicate	VA23A2861-006	2/6/2023	<0.000050	<0.010	<0.0000050	14.2	<0.00050	<0.00010	<0.00050	0.023	<0.000050	<0.0010	3.06	0.00208	<0.0000050
Davidson Creek	DC-10	Surface	Primary	VA23A1261-003	1/17/2023	<0.000050	<0.010	<0.0000050	15	<0.00050	<0.00010	<0.00050	0.044	<0.000050	<0.0010	2.93	0.00428	<0.0000050
Davidson Creek	DC-15	Surface	Primary	VA23D0155-005	12/15/2023	<0.000050	<0.010	<0.0000050	13.8	0.00072	<0.00010	<0.00050	0.078	<0.000050	<0.0010	2.98	0.0044	<0.0000050
Davidson Creek	DC-15	Surface	Primary	VA23C7190-004	11/8/2023	<0.000050	<0.010	<0.0000050	12.2	<0.00050	<0.00010	<0.00050	0.2	0.000111	<0.0010	2.61	0.00792	<0.0000050
Davidson Creek	DC-15	Surface	Primary	VA23C4279-006	10/10/2023	<0.000050	<0.010	<0.0000050	14.8	<0.00050	<0.00010	<0.00050	0.062	<0.000050	<0.0010	3.24	0.00469	<0.0000050
Davidson Creek	DC-15	Surface	Primary	VA23C2388-004	9/19/2023	<0.000050	<0.010	<0.0000050	13.6	<0.00050	<0.00010	<0.00050	0.042	<0.000050	<0.0010	2.9	0.00422	<0.0000050
Davidson Creek	DC-15	Surface	Primary	VA23B9219-004	8/16/2023	<0.000050	<0.010	<0.0000050	12.2	<0.00050	<0.00010	<0.00050	0.092	<0.000050	<0.0010	2.33	0.00515	<0.0000050
Davidson Creek	DC-15	Surface	Primary	VA23B7293-006	7/25/2023	<0.000050	<0.010	0.0000109	10.6	<0.00050	0.00014	0.0006	0.264	0.000106	<0.0010	2.13	0.0344	0.0000052
Davidson Creek	DC-15	Surface	Duplicate	VA23B7293-011	7/25/2023	<0.000050	<0.010	0.0000201	10.3	<0.00050	0.00015	0.00102	0.261	0.000139	<0.0010	2.1	0.0342	<0.0000050
Davidson Creek	DC-15	Surface	Primary	VA23B4181-005	6/21/2023	<0.000050	<0.010	<0.0000050	8.46	<0.00050	<0.00010	<0.00050	0.064	<0.000050	<0.0010	1.73	0.00431	<0.0000050
Davidson Creek	DC-15	Surface	Primary	VA23A9893-004	5/4/2023	<0.000050	<0.010	0.0000222	6.02	0.00074	0.00017	0.00116	0.597	0.000266	<0.0010	1.26	0.0374	0.0000133
Davidson Creek	DC-15	Surface	Primary	VA23A9076-001	4/25/2023	<0.000050	<0.010	<0.0000050	16.8	<0.00050	<0.00010	<0.00050	0.046	<0.000050	<0.0010	3.58	0.00579	<0.0000050
Davidson Creek	DC-15	Surface	Primary	VA23A5821-002	3/15/2023	<0.000050	<0.010	<0.0000050	17.4	<0.00050	<0.00010	<0.00050	0.019	<0.000050	<0.0010	3.76	0.00318	<0.0000050
Davidson Creek	DC-15	Surface	Primary	VA23A2670-003	2/4/2023	<0.000050	<0.010	<0.0000050	16.4	<0.00050	<0.00010	<0.00050	0.021	<0.000050	<0.0010	4.03	0.00368	<0.0000050
Davidson Creek	DC-15	Surface	Duplicate	VA23A2670-004	2/4/2023	<0.000050	<0.010	<0.0000050	17	<0.00050	<0.00010	<0.00050	0.02	<0.000050	<0.0010	3.68	0.00441	<0.0000050
Davidson Creek	DC-15	Surface	Primary	VA23A1491-004	1/19/2023	<0.000050	<0.010	<0.0000050	16.6	<0.00050	<0.00010	<0.00050	0.024	<0.000050	<0.0010	3.39	0.0061	<0.0000050
Davidson Creek	DC-20	Surface	Primary	VA23C9626-004	12/6/2023	<0.000050	<0.010	<0.0000050	13.2	<0.00050	<0.00010	<0.00050	0.259	0.000079	<0.0010	3.05	0.0212	<0.0000050
Davidson Creek	DC-20	Surface	Primary	VA23C6498-006	11/1/2023	<0.000050	<0.010	<0.0000050	15.4	<0.00050	<0.00010	<0.00050	0.248	<0.000050	<0.0010	3.62	0.0319	<0.0000050
Davidson Creek	DC-20	Surface	Primary	VA23C5771-005	10/24/2023	<0.000050	<0.010	<0.0000050	13	<0.00050	0.0001	<0.00050	0.369	<0.000050	<0.0010	3.12	0.0372	<0.0000050
Davidson Creek	DC-20	Surface	Primary	VA23C5184-002	10/20/2023	<0.000050	<0.010	<0.0000050	14.9	<0.00050	<0.00010	<0.00050	0.278	<0.000050	<0.0010	3.8	0.0241	<0.0000050
Davidson Creek	DC-20	Surface	Duplicate	VA23C5184-003	10/20/2023	<0.000050	<0.010	<0.0000050	14.7	<0.00050	<0.00010	<0.00050	0.266	<0.000050	<0.0010	3.77	0.0196	<0.0000050
Davidson Creek	DC-20	Surface	Primary	VA23C4458-004	10/11/2023	<0.000050	<0.010	0.0000065	14.6	<0.00050	<0.00010	<0.00050	0.3	<0.000050	<0.0010	3.55	0.0216	<0.0000050
Davidson Creek	DC-20	Surface	Primary	VA23C3871-006	10/4/2023	<0.000050	<0.010	<0.0000050	15.5	<0.00050	<0.00010	<0.00050	0.303	<0.000050	<0.0010	3.69	0.0218	<0.0000050
Davidson Creek	DC-20	Surface	Primary	VA23C2546-001	9/20/2023	<0.000050	<0.010	<0.0000050	14.8	<0.00050	<0.00010	<0.00050	0.282	<0.000050	<0.0010	3.36	0.0224	<0.0000050
Davidson Creek	DC-20	Surface	Duplicate	VA23C2546-002	9/20/2023	<0.000050	<0.010	<0.0000050	14.9	<0.00050	<0.00010	<0.00050	0.279	<0.000050	<0.0010	3.47	0.0217	<0.0000050
Davidson Creek	DC-20	Surface	Primary	VA23B9723-001	8/22/2023	<0.000050	<0.010	<0.0000050	13	<0.00050	<0.00010	<0.00050	0.279	<0.000050	<0.0010	2.82	0.016	<0.0000050
Davidson Creek	DC-20	Surface	Primary	VA23B7734-005	7/31/2023	<0.000050	<0.010	<0.0000050	11.9	<0.00050	<0.00010	<0.00050	0.207	<0.000050	<0.0010	2.58	0.0175	<0.0000050
Davidson Creek	DC-20	Surface	Primary	VA23B2847-003	6/6/2023	<0.000050	<0.010	<0.0000050	8.88	<0.00050	<0.00010	0.0503	0.152	<0.000050	<0.0010	2.06	0.0108	<0.0000050
Davidson Creek	DC-20	Surface	Primary	VA23B2219-004	5/30/2023	<0.000050	<0.010	<0.0000050	7.45	<0.00050	<0.00010	0.00051	0.139	<0.000050	<0.0010	1.67	0.0107	<0.0000050
Davidson Creek	DC-20	Surface	Primary	VA23B1690-002	5/24/2023	<0.000050	<0.010	<0.0000050	6.39	<0.00050	<0.00010	0.00064	0.171	<0.000050	<0.0010	1.3	0.0115	<0.0000050
Davidson Creek	DC-20	Surface	Primary	VA23B1108-005	5/17/2023	<0.000050	<0.010	0.0000074	4.84	<0.00050	0.00011	0.00082	0.308	0.00008	<0.0010	1	0.015	0.0000081
Davidson Creek	DC-20	Surface	Primary	VA23B0508-005	5/11/2023	<0.000050	<0.010	0.0000096	4.84	0.00054	0.00012	0.00085	0.373	0.000124	<0.0010	1.1	0.0166	0.0000093
Davidson Creek	DC-20	Surface	Primary	VA23A9782-004	5/3/2023	<0.000050	<0.010	0.0000182	7.95	0.00098	0.00028	0.00137	0.916	0.00034	<0.0010	1.8	0.0558	0.000012
Davidson Creek	DC-20	Surface	Primary	VA23A9207-003	4/26/2023	<0.000050	<0.010	0.0000057	15	<0.00050	0.00012	0.00056	0.409	0.000069	<0.0010	3.82	0.043	<0.0000050

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*												
						Bismuth (Bi)-Total	Boron (B)-Total	Cadmium (Cd)-Total	Calcium (Ca)-Total	Chromium (Cr)-Total	Cobalt (Co)-Total	Copper (Cu)-Total	Iron (Fe)-Total	Lead (Pb)-Total	Lithium (Li)-Total	Magnesium (Mg)-Total	Manganese (Mn)-Total	Mercury (Hg)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Davidson Creek	DC-20	Surface	Primary	VA23A6097-005	3/20/2023	<0.000050	<0.010	<0.0000050	18.1	<0.00050	<0.00010	<0.00050	0.132	<0.000050	<0.0010	4.35	0.0207	<0.0000050
Davidson Creek	DC-20	Surface	Primary	VA23A3560-002	2/14/2023	<0.000050	<0.010	0.0000081	16.7	<0.00050	<0.00010	<0.00050	0.265	<0.000050	<0.0010	4.04	0.032	<0.0000050
Davidson Creek	DC-20	Surface	Primary	VA23A1889-001	1/24/2023	<0.000050	<0.010	0.0000096	18.6	<0.00050	0.00011	0.00055	0.468	0.000092	<0.0010	4.57	0.0408	<0.0000050
Turtle Creek	TC-01	Surface	Primary	VA23D0165-002	12/14/2023	<0.000050	<0.010	<0.0000050	35.5	<0.00050	<0.00010	<0.00050	0.021	<0.000050	<0.0010	4.59	0.00776	<0.0000050
Turtle Creek	TC-01	Surface	Primary	VA23C6880-003	11/6/2023	<0.000050	<0.010	<0.0000050	32.8	<0.00050	<0.00010	<0.00050	0.027	<0.000050	<0.0010	4.13	0.00846	<0.0000050
Turtle Creek	TC-01	Surface	Primary	VA23C4014-009	10/6/2023	<0.000050	<0.010	<0.0000050	29.1	<0.00050	<0.00010	<0.00050	0.051	<0.000050	<0.0010	4.21	0.00947	<0.0000050
Turtle Creek	TC-01	Surface	Primary	VA23C1674-003	9/12/2023	<0.000050	<0.010	<0.0000050	30.5	0.00064	<0.00010	<0.00050	0.07	<0.000050	<0.0010	4.04	0.0111	<0.0000050
Turtle Creek	TC-01	Surface	Primary	VA23B8906-007	8/15/2023	<0.000050	<0.010	<0.0000050	29.8	<0.00050	<0.00010	<0.00050	0.101	<0.000050	<0.0010	3.98	0.0187	<0.0000050
Turtle Creek	TC-01	Surface	Primary	VA23B7523-005	7/27/2023	<0.000050	<0.010	<0.0000050	31.4	<0.00050	<0.00010	<0.00050	0.086	<0.000050	<0.0010	3.84	0.0154	<0.0000050
Turtle Creek	TC-01	Surface	Primary	VA23B4330-002	6/21/2023	<0.000050	<0.010	<0.0000050	27.3	<0.00050	<0.00010	<0.00050	0.054	<0.000050	<0.0010	3.63	0.01	<0.0000050
Turtle Creek	TC-01	Surface	Duplicate	VA23B4330-007	6/21/2023	<0.000050	<0.010	<0.0000050	27.5	<0.00050	<0.00010	<0.00050	0.065	<0.000050	<0.0010	3.62	0.0108	<0.0000050
Turtle Creek	TC-01	Surface	Primary	VA23A9638-003	5/2/2023	<0.000050	<0.010	<0.0000050	29.7	<0.00050	<0.00010	<0.00050	0.024	<0.000050	<0.0010	3.92	0.00688	<0.0000050
Turtle Creek	TC-01	Surface	Primary	VA23A8158-004	4/13/2023	<0.000050	<0.010	<0.0000050	30.2	<0.00050	<0.00010	<0.00050	0.071	<0.000050	<0.0010	4.31	0.00483	<0.0000050
Turtle Creek	TC-01	Surface	Primary	VA23A5821-003	3/15/2023	<0.000050	<0.010	<0.0000050	31.7	<0.00050	<0.00010	<0.00050	0.058	<0.000050	<0.0010	4.2	0.00901	<0.0000050
Turtle Creek	TC-01	Surface	Primary	VA23A3268-003	2/10/2023	<0.000050	<0.010	0.0000363	33.5	0.00158	0.00022	0.0012	0.777	0.000068	<0.0010	4.44	0.0643	<0.0000050
Turtle Creek	TC-01	Surface	Primary	VA23A1491-001	1/19/2023	<0.000050	<0.010	0.0000122	34.8	0.0008	0.00012	0.00062	0.38	<0.000050	<0.0010	4.15	0.0428	<0.0000050
Turtle Creek	TC-05	Surface	Primary	VA23D0165-003	12/14/2023	<0.000050	<0.010	<0.0000050	32.5	<0.00050	<0.00010	<0.00050	0.323	<0.000050	<0.0010	5.94	0.0318	<0.0000050
Turtle Creek	TC-05	Surface	Primary	VA23C6880-004	11/6/2023	<0.000050	<0.010	<0.0000050	29.4	<0.00050	<0.00010	<0.00050	0.263	<0.000050	<0.0010	5.49	0.0215	<0.0000050
Turtle Creek	TC-05	Surface	Primary	VA23C4458-006	10/11/2023	<0.000050	<0.010	<0.0000050	28.3	0.00052	<0.00010	0.00084	0.316	<0.000050	<0.0010	5.58	0.0185	<0.0000050
Turtle Creek	TC-05	Surface	Primary	VA23C1674-004	9/12/2023	<0.000050	<0.010	<0.0000050	27.8	0.00064	<0.00010	<0.00050	0.305	<0.000050	<0.0010	5.48	0.0166	<0.0000050
Turtle Creek	TC-05	Surface	Duplicate	VA23C1674-006	9/12/2023	<0.000050	<0.010	<0.0000050	27.2	0.00095	<0.00010	0.00073	0.301	<0.000050	<0.0010	5.27	0.0153	<0.0000050
Turtle Creek	TC-05	Surface	Primary	VA23B8906-008	8/15/2023	<0.000050	<0.010	<0.0000050	27.5	<0.00050	<0.00010	<0.00050	0.426	<0.000050	<0.0010	4.84	0.0263	<0.0000050
Turtle Creek	TC-05	Surface	Primary	VA23B4330-003	6/21/2023	<0.000050	<0.010	<0.0000050	23.6	<0.00050	<0.00010	<0.00050	0.232	<0.000050	<0.0010	4.31	0.0143	<0.0000050
Turtle Creek	TC-05	Surface	Primary	VA23B0364-005	5/10/2023	<0.000050	<0.010	0.0000091	8.71	0.00066	0.00016	0.00146	0.62	0.000158	<0.0010	1.56	0.0293	0.0000099
Turtle Creek	TC-05	Surface	Primary	VA23A7852-004	4/11/2023	<0.000050	<0.010	<0.0000050	29.6	<0.00050	<0.00010	<0.00050	0.383	<0.000050	<0.0010	5.36	0.0302	<0.0000050
Turtle Creek	TC-05	Surface	Primary	VA23A5821-004	3/15/2023	<0.000050	<0.010	<0.0000050	30.3	<0.00050	<0.00010	<0.00050	0.335	<0.000050	<0.0010	5.57	0.0234	<0.0000050
Turtle Creek	TC-05	Surface	Primary	VA23A3268-002	2/10/2023	<0.000050	<0.010	<0.0000050	29.5	<0.00050	<0.00010	<0.00050	0.33	<0.000050	<0.0010	5.5	0.0217	<0.0000050
Turtle Creek	TC-05	Surface	Primary	VA23A1491-002	1/19/2023	<0.000050	<0.010	<0.0000050	30.2	<0.00050	<0.00010	<0.00050	0.364	<0.000050	<0.0010	4.97	0.0242	<0.0000050
Turtle Creek	TC-10	Surface	Primary	VA23D0165-004	12/14/2023	<0.000050	<0.010	<0.0000050	33.2	<0.00050	<0.00010	<0.00050	0.319	<0.000050	<0.0010	6.65	0.0658	<0.0000050
Turtle Creek	TC-10	Surface	Duplicate	VA23D0165-005	12/14/2023	<0.000050	<0.010	<0.0000050	33.4	<0.00050	<0.00010	<0.00050	0.345	<0.000050	<0.0010	6.68	0.0707	<0.0000050
Turtle Creek	TC-10	Surface	Primary	VA23C6880-005	11/6/2023	<0.000050	<0.010	<0.0000050	31	<0.00050	<0.00010	<0.00050	0.268	<0.000050	<0.0010	6.03	0.0351	<0.0000050
Turtle Creek	TC-10	Surface	Primary	VA23C4014-010	10/6/2023	<0.000050	<0.010	<0.0000050	29	<0.00050	<0.00010	<0.00050	0.292	<0.000050	<0.0010	6.23	0.0259	<0.0000050
Turtle Creek	TC-10	Surface	Primary	VA23C1674-005	9/12/2023	<0.000050	<0.010	<0.0000050	30.6	0.00071	<0.00010	<0.00050	0.369	<0.000050	<0.0010	6.26	0.0279	<0.0000050
Turtle Creek	TC-10	Surface	Primary	VA23C0266-005	8/28/2023	<0.000050	<0.010	<0.0000050	30.3	<0.00050	<0.00010	<0.00050	0.362	<0.000050	<0.0010	6.1	0.0293	<0.0000050
Turtle Creek	TC-10	Surface	Primary	VA23B7293-012	7/25/2023	<0.000050	<0.010	<0.0000050	29.5	<0.00050	<0.00010	<0.00050	0.292	<0.000050	<0.0010	5.89	0.0257	<0.0000050
Turtle Creek	TC-10	Surface	Primary	VA23B4330-004	6/21/2023	<0.000050	<0.010	<0.0000050	25.4	<0.00050	<0.00010	<0.00050	0.229	<0.000050	<0.0010	5.14	0.0401	<0.0000050
Turtle Creek	TC-10	Surface	Primary	VA23A9638-004	5/2/2023	<0.000050	<0.010	0.0000094	13.7	<0.00050	0.00022	0.00096	0.957	0.00009	<0.0010	2.64	0.252	0.0000056
Turtle Creek	TC-10	Surface	Primary	VA23A7852-005	4/11/2023	<0.000050	<0.010	<0.0000050	30.3	<0.00050	<0.00010	<0.00050	0.36	<0.000050	<0.0010	6.17	0.0519	<0.0000050
Turtle Creek	TC-10	Surface	Primary	VA23A5627-004	3/14/2023	<0.000050	<0.010	<0.0000050	30.4	<0.00050	<0.00010	<0.00050	0.317	<0.000050	<0.0010	6.31	0.0592	<0.0000050
Turtle Creek	TC-10	Surface	Primary	VA23A3268-001	2/10/2023	<0.000050	<0.010	<0.0000050	31.8	<0.00050	<0.00010	<0.00050	0.325	<0.000050	<0.0010	6.2	0.0538	<0.0000050
Turtle Creek	TC-10	Surface	Primary	VA23A1111-001	1/16/2023	<0.000050	<0.010	<0.0000050	30.3	<0.00050	<0.00010	<0.00050	0.359	<0.000050	<0.0010	6.18	0.0584	<0.0000050
Turtle Creek	TC-15	Surface	Primary	VA23C6880-006	11/6/2023	<0.000050	<0.010	<0.0000050	27.3	<0.00050	<0.00010	<0.00050	0.347	<0.000050	<0.0010	5.96	0.00585	<0.0000050
Turtle Creek	TC-15	Surface	Primary	VA23C4014-011	10/6/2023	<0.000050	<0.010	<0.0000050	26.1	<0.00050	<0.00010	<0.00050	0.118	<0.000050	<0.0010	6.51	0.0011	<0.0000050
Turtle Creek	TC-15	Surface	Primary	VA23C0266-004	8/28/2023	<0.000050	<0.010	<0.0000050	28.9	<0.00050	<0.00010	<0.00050	0.169	<0.000050	<0.0010	6.82	0.00429	<0.0000050
Turtle Creek	TC-15	Surface	Primary	VA23B7523-006	7/27/2023	<0.000050	<0.010	<0.0000050	27.5	<0.00050	<0.00010	<0.00050	0.171	<0.000050	<0.0010	6.12	0.00294	<0.0000050
Turtle Creek	TC-15	Surface	Primary	VA23B4330-005	6/21/2023	<0.000050	<0.010	0.000008	22.7	<0.00050	<0.00010	0.0479	0.164	0.00408	<0.0010	5.05	0.00754	<0.0000050

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*												
						Bismuth (Bi)-Total	Boron (B)-Total	Cadmium (Cd)-Total	Calcium (Ca)-Total	Chromium (Cr)-Total	Cobalt (Co)-Total	Copper (Cu)-Total	Iron (Fe)-Total	Lead (Pb)-Total	Lithium (Li)-Total	Magnesium (Mg)-Total	Manganese (Mn)-Total	Mercury (Hg)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Turtle Creek	TC-15	Surface	Primary	VA23A9638-005	5/2/2023	<0.000050	<0.010	<0.0000050	16.2	<0.00050	<0.00010	<0.00050	0.384	<0.000050	<0.0010	3.38	0.0315	<0.0000050
Turtle Creek	TC-15	Surface	Primary	VA23A9207-004	4/26/2023	<0.000050	<0.010	<0.0000050	19.8	<0.00050	<0.00010	<0.00050	0.466	<0.000050	<0.0010	4.54	0.0268	<0.0000050
Creek 661	661-01	Surface	Primary	VA23C9661-001	12/7/2023	<0.000050	<0.010	<0.0000050	4.55	<0.00050	<0.00010	<0.00050	0.127	<0.000050	<0.0010	1.25	0.0255	<0.0000050
Creek 661	661-01	Surface	Duplicate	VA23C9661-002	12/7/2023	<0.000050	<0.010	<0.0000050	4.69	<0.00050	<0.00010	<0.00050	0.125	<0.000050	<0.0010	1.23	0.0234	<0.0000050
Creek 661	661-01	Surface	Primary	VA23C7190-008	11/9/2023	<0.000050	<0.010	<0.0000050	4.29	<0.00050	<0.00010	<0.00050	0.053	<0.000050	<0.0010	1.23	0.00819	<0.0000050
Creek 661	661-01	Surface	Primary	VA23C6383-001	10/31/2023	<0.000050	<0.010	<0.0000050	4.6	<0.00050	<0.00010	<0.00050	0.082	<0.000050	<0.0010	1.21	0.0374	<0.0000050
Creek 661	661-01	Surface	Primary	VA23C5894-003	10/25/2023	<0.000050	<0.010	<0.0000050	5.74	<0.00050	<0.00010	<0.00050	0.075	<0.000050	<0.0010	1.41	0.0335	<0.0000050
Creek 661	661-01	Surface	Primary	VA23C4858-001	10/16/2023	<0.000050	<0.010	<0.0000050	4.45	<0.00050	<0.00010	<0.00050	0.056	<0.000050	<0.0010	1.2	0.0186	<0.0000050
Creek 661	661-01	Surface	Primary	VA23C4586-003	10/14/2023	<0.000050	<0.010	<0.0000050	4.35	<0.00050	<0.00010	<0.00050	0.086	0.000062	<0.0010	1.17	0.0387	<0.0000050
Creek 661	661-01	Surface	Primary	VA23C4014-004	10/5/2023	<0.000050	<0.010	<0.0000050	4.43	<0.00050	<0.00010	<0.00050	0.06	<0.000050	<0.0010	1.24	0.0157	<0.0000050
Creek 661	661-01	Surface	Primary	VA23C0875-002	9/4/2023	<0.000050	<0.010	<0.0000050	4.23	<0.00050	<0.00010	<0.00050	0.048	<0.000050	<0.0010	1.08	0.0129	<0.0000050
Creek 661	661-01	Surface	Primary	VA23B8906-006	8/15/2023	<0.000050	<0.010	<0.0000050	4.17	<0.00050	<0.00010	<0.00050	0.057	<0.000050	<0.0010	1.11	0.0124	<0.0000050
Creek 661	661-01	Surface	Primary	VA23B7523-004	7/27/2023	<0.000050	<0.010	<0.0000050	3.68	<0.00050	<0.00010	<0.00050	0.237	<0.000050	<0.0010	0.915	0.0137	<0.0000050
Creek 661	661-01	Surface	Primary	VA23B3687-001	6/14/2023	<0.000050	<0.010	<0.0000050	2.89	<0.00050	<0.00010	<0.00050	0.075	<0.000050	<0.0010	0.726	0.0088	<0.0000050
Creek 661	661-01	Surface	Primary	VA23B2847-004	6/6/2023	<0.000050	<0.010	<0.0000050	2.49	<0.00050	<0.00010	<0.00050	0.122	<0.000050	<0.0010	0.669	0.00803	<0.0000050
Creek 661	661-01	Surface	Primary	VA23B2224-001	5/31/2023	<0.000050	<0.010	<0.0000050	2.36	<0.00050	<0.00010	<0.00050	0.116	<0.000050	<0.0010	0.601	0.00955	<0.0000050
Creek 661	661-01	Surface	Primary	VA23B1379-001	5/22/2023	<0.000050	<0.010	<0.0000050	2.17	<0.00050	<0.00010	<0.00050	0.15	<0.000050	<0.0010	0.507	0.00814	<0.0000050
Creek 661	661-01	Surface	Duplicate	VA23B1379-002	5/22/2023	<0.000050	<0.010	<0.0000050	2.18	<0.00050	<0.00010	<0.00050	0.149	<0.000050	<0.0010	0.505	0.00838	<0.0000050
Creek 661	661-01	Surface	Primary	VA23B0766-007	5/16/2023	<0.000050	<0.010	0.0000054	1.87	<0.00050	<0.00010	<0.00050	0.186	<0.000050	<0.0010	0.453	0.00826	0.0000071
Creek 661	661-01	Surface	Primary	VA23A8158-006	4/14/2023	<0.000050	<0.010	<0.0000050	2.98	<0.00050	<0.00010	<0.00050	0.094	<0.000050	<0.0010	0.796	0.0124	<0.0000050
Creek 661	661-01	Surface	Primary	VA23A6844-007	3/28/2023	<0.000050	<0.010	<0.0000050	2.93	<0.00050	<0.00010	<0.00050	0.296	<0.000050	<0.0010	0.809	0.0274	<0.0000050
Creek 661	661-01	Surface	Primary	VA23A4552-001	2/28/2023	<0.000050	<0.010	<0.0000050	2.93	<0.00050	<0.00010	<0.00050	0.282	<0.000050	<0.0010	0.766	0.0103	<0.0000050
Creek 661	661-01	Surface	Primary	VA23A1264-005	1/17/2023	<0.000050	<0.010	0.0000062	2.3	<0.00050	<0.00010	<0.00050	0.105	<0.000050	<0.0010	0.603	0.0133	<0.0000050
Creek 661	661-04	Surface	Primary	VA23C9661-003	12/7/2023	<0.000050	<0.010	0.0000138	10.3	<0.00050	<0.00010	<0.00050	0.047	<0.000050	<0.0010	2.71	0.00648	<0.0000050
Creek 661	661-04	Surface	Primary	VA23C7190-009	11/9/2023	<0.000050	<0.010	0.0000126	9.41	<0.00050	<0.00010	<0.00050	0.052	<0.000050	<0.0010	2.58	0.00574	0.0000054
Creek 661	661-04	Surface	Primary	VA23C6383-002	10/31/2023	<0.000050	<0.010	0.000014	10.1	<0.00050	<0.00010	<0.00050	0.055	<0.000050	<0.0010	2.65	0.00769	<0.0000050
Creek 661	661-04	Surface	Primary	VA23C5894-002	10/25/2023	<0.000050	<0.010	0.0000149	11.3	<0.00050	<0.00010	<0.00050	0.058	<0.000050	<0.0010	2.69	0.0086	<0.0000050
Creek 661	661-04	Surface	Primary	VA23C4858-002	10/16/2023	<0.000050	<0.010	0.0000112	10.2	<0.00050	<0.00010	<0.00050	0.053	<0.000050	<0.0010	2.48	0.00692	<0.0000050
Creek 661	661-04	Surface	Primary	VA23C4586-004	10/14/2023	<0.000050	<0.010	0.0000133	10.2	<0.00050	<0.00010	<0.00050	0.052	<0.000050	<0.0010	2.48	0.0066	<0.0000050
Creek 661	661-04	Surface	Primary	VA23C4014-005	10/5/2023	<0.000050	<0.010	0.0000136	9.81	<0.00050	<0.00010	<0.00050	0.061	<0.000050	<0.0010	2.5	0.00658	<0.0000050
Creek 661	661-04	Surface	Primary	VA23C1991-004	9/14/2023	<0.000050	<0.010	0.0000145	10.6	<0.00050	<0.00010	<0.00050	0.067	<0.000050	<0.0010	2.58	0.00669	<0.0000050
Creek 661	661-04	Surface	Primary	VA23B8906-005	8/14/2023	<0.000050	<0.010	0.0000216	9.8	<0.00050	<0.00010	<0.00050	0.057	<0.000050	<0.0010	2.41	0.00624	<0.0000050
Creek 661	661-04	Surface	Primary	VA23B3687-002	6/14/2023	<0.000050	<0.010	0.0000189	6.91	<0.00050	<0.00010	<0.00050	0.052	<0.000050	<0.0010	1.64	0.00438	<0.0000050
Creek 661	661-04	Surface	Duplicate	VA23B3687-003	6/14/2023	<0.000050	<0.010	0.000018	6.9	<0.00050	<0.00010	<0.00050	0.053	<0.000050	<0.0010	1.62	0.00447	<0.0000050
Creek 661	661-04	Surface	Primary	VA23B2847-005	6/6/2023	<0.000050	<0.010	0.0000183	6.2	<0.00050	<0.00010	<0.00050	0.052	<0.000050	<0.0010	1.46	0.00392	<0.0000050
Creek 661	661-04	Surface	Primary	VA23B2224-002	5/31/2023	<0.000050	<0.010	0.000019	5.54	<0.00050	<0.00010	0.00062	0.064	<0.000050	<0.0010	1.34	0.00455	<0.0000050
Creek 661	661-04	Surface	Primary	VA23B1379-004	5/22/2023	<0.000050	<0.010	0.0000256	4.75	<0.00050	<0.00010	0.00053	0.092	<0.000050	<0.0010	0.99	0.00477	<0.0000050
Creek 661	661-04	Surface	Primary	VA23B0766-008	5/16/2023	<0.000050	<0.010	0.0000352	3.7	<0.00050	<0.00010	0.00062	0.124	0.000057	<0.0010	0.832	0.00513	0.0000091
Creek 661	661-04	Surface	Primary	VA23A8158-007	4/14/2023	<0.000050	<0.010	0.0000102	9.87	<0.00050	<0.00010	<0.00050	0.037	<0.000050	<0.0010	2.48	0.00451	<0.0000050
Creek 661	661-04	Surface	Primary	VA23A6844-008	3/28/2023	<0.000050	<0.010	0.0000085	9.93	<0.00050	<0.00010	<0.00050	0.04	<0.000050	<0.0010	2.51	0.00446	<0.0000050
Creek 661	661-04	Surface	Primary	VA23A3268-009	2/9/2023	<0.000050	<0.010	0.000012	9.22	<0.00050	<0.00010	<0.00050	0.036	<0.000050	<0.0010	2.27	0.00462	<0.0000050
Creek 661	661-04	Surface	Primary	VA23A1264-004	1/17/2023	<0.000050	<0.010	0.0000221	9.31	<0.00050	<0.00010	<0.00050	0.109	0.000067	<0.0010	2.4	0.00848	<0.0000050
Creek 661	661-05	Surface	Primary	VA23C9238-004	12/4/2023	<0.000050	<0.010	0.000005	13	0.00135	0.0001	<0.00050	0.425	0.000165	<0.0010	3.13	0.0144	<0.0000050
Creek 661	661-05	Surface	Primary	VA23C7190-005	11/8/2023	<0.000050	<0.010	0.0000209	12.4	0.00287	0.00088	0.00291	2.68	0.0016	0.0015	3.59	0.0681	0.000013
Creek 661	661-05	Surface	Duplicate	VA23C7190-006	11/8/2023	<0.000050	<0.010	0.000019	12.5	0.00258	0.00084	0.00279	2.52	0.00154	0.0013	3.46	0.0659	0.0000132
Creek 661	661-05	Surface	Primary	VA23C4865-004	10/16/2023	<0.000050	<0.010	<0.0000050	12.6	0.00086	<0.00010	<0.00050	0.153	<0.000050	<0.0010	3.1	0.0119	<0.0000050

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*												
						Bismuth (Bi)-Total	Boron (B)-Total	Cadmium (Cd)-Total	Calcium (Ca)-Total	Chromium (Cr)-Total	Cobalt (Co)-Total	Copper (Cu)-Total	Iron (Fe)-Total	Lead (Pb)-Total	Lithium (Li)-Total	Magnesium (Mg)-Total	Manganese (Mn)-Total	Mercury (Hg)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Creek 661	661-05	Surface	Primary	VA23C1491-002	9/11/2023	<0.000050	<0.010	<0.0000050	13.4	0.00074	<0.00010	<0.00050	0.184	<0.000050	<0.0010	3.18	0.00999	<0.0000050
Creek 661	661-05	Surface	Primary	VA23B9219-005	8/16/2023	<0.000050	<0.010	<0.0000050	13.2	0.00075	<0.00010	<0.00050	0.216	<0.000050	<0.0010	2.99	0.0102	<0.0000050
Creek 661	661-05	Surface	Primary	VA23B7293-010	7/25/2023	<0.000050	<0.010	<0.0000050	10.4	0.00073	<0.00010	<0.00050	0.182	<0.000050	<0.0010	2.31	0.0102	<0.0000050
Creek 661	661-05	Surface	Primary	VA23B4181-001	6/21/2023	<0.000050	<0.010	0.0000056	9.29	0.00077	<0.00010	<0.00050	0.168	<0.000050	<0.0010	2.1	0.0085	<0.0000050
Creek 661	661-05	Surface	Primary	VA23B0766-005	5/15/2023	<0.000050	<0.010	0.0000067	6.22	0.00072	<0.00010	0.00063	0.238	0.000058	<0.0010	1.4	0.00972	0.0000078
Creek 661	661-05	Surface	Primary	VA23A9322-001	4/27/2023	<0.000050	<0.010	0.0000054	10.8	0.00096	<0.00010	<0.00050	0.276	0.000066	<0.0010	2.69	0.0152	<0.0000050
Creek 661	661-05	Surface	Primary	VA23A5821-001	3/15/2023	<0.000050	<0.010	<0.0000050	12.6	0.0008	<0.00010	<0.00050	0.098	<0.000050	<0.0010	2.92	0.00608	<0.0000050
Creek 661	661-05	Surface	Primary	VA23A2670-001	2/4/2023	<0.000050	<0.010	<0.0000050	12.8	0.00093	<0.00010	<0.00050	0.114	<0.000050	<0.0010	3.06	0.00854	<0.0000050
Creek 661	661-05	Surface	Primary	VA23A1491-003	1/19/2023	<0.000050	<0.010	<0.0000050	12.9	0.00087	<0.00010	<0.00050	0.113	<0.000050	<0.0010	2.9	0.00793	<0.0000050
Creek 661	661-03	Surface	Primary	VA23C9238-001	12/4/2023	<0.000050	<0.010	<0.0000050	10.9	<0.00050	<0.00010	<0.00050	0.099	<0.000050	<0.0010	3.27	0.0143	<0.0000050
Creek 661	661-03	Surface	Primary	VA23C6622-002	11/2/2023	<0.000050	<0.010	<0.0000050	13.7	<0.00050	<0.00010	<0.00050	0.088	<0.000050	<0.0010	4.18	0.0181	<0.0000050
Creek 661	661-03	Surface	Primary	VA23C5577-001	10/23/2023	<0.000050	<0.010	<0.0000050	11.8	<0.00050	<0.00010	<0.00050	0.077	<0.000050	<0.0010	3.91	0.0155	<0.0000050
Creek 661	661-03	Surface	Primary	VA23C4865-003	10/16/2023	<0.000050	<0.010	<0.0000050	16.6	<0.00050	<0.00010	<0.00050	0.07	<0.000050	<0.0010	5.07	0.0251	<0.0000050
Creek 661	661-03	Surface	Primary	VA23C4279-004	10/10/2023	<0.000050	<0.010	<0.0000050	16.8	0.0006	<0.00010	<0.00050	0.111	<0.000050	<0.0010	5.16	0.0288	<0.0000050
Creek 661	661-03	Surface	Duplicate	VA23C4279-005	10/10/2023	<0.000050	<0.010	<0.0000050	17.1	<0.00050	<0.00010	0.00077	0.16	0.000063	<0.0010	5.23	0.0408	<0.0000050
Creek 661	661-03	Surface	Primary	VA23C3847-004	10/3/2023	<0.000050	<0.010	<0.0000050	17	<0.00050	<0.00010	0.00088	0.111	0.000063	<0.0010	5.31	0.0307	0.0000087
Creek 661	661-03	Surface	Primary	VA23C1491-001	9/11/2023	<0.000050	<0.010	<0.0000050	16.9	<0.00050	<0.00010	<0.00050	0.122	<0.000050	<0.0010	5.07	0.0318	<0.0000050
Creek 661	661-03	Surface	Primary	VA23B9359-002	8/17/2023	<0.000050	<0.010	<0.0000050	13.6	0.00096	<0.00010	<0.00050	0.089	<0.000050	<0.0010	4.05	0.0228	<0.0000050
Creek 661	661-03	Surface	Primary	VA23B7293-003	7/25/2023	<0.000050	<0.010	<0.0000050	11.2	<0.00050	<0.00010	0.00054	0.097	<0.000050	<0.0010	3.09	0.0154	<0.0000050
Creek 661	661-03	Surface	Primary	VA23B3987-002	6/19/2023	<0.000050	<0.010	<0.0000050	11	<0.00050	<0.00010	0.00053	0.191	<0.000050	<0.0010	3.12	0.0317	<0.0000050
Creek 661	661-03	Surface	Primary	VA23B2052-002	5/29/2023	<0.000050	<0.010	<0.0000050	7.88	<0.00050	<0.00010	0.00108	0.077	<0.000050	<0.0010	2.3	0.00564	<0.0000050
Creek 661	661-03	Surface	Primary	VA23B1529-001	5/23/2023	<0.000050	<0.010	<0.0000050	7.28	<0.00050	<0.00010	0.00068	0.079	<0.000050	<0.0010	2.13	0.00539	<0.0000050
Creek 661	661-03	Surface	Primary	VA23B0766-004	5/15/2023	<0.000050	<0.010	<0.0000050	6.73	<0.00050	<0.00010	0.00075	0.146	<0.000050	<0.0010	1.96	0.0109	0.0000069
Creek 661	661-03	Surface	Primary	VA23B0222-001	5/9/2023	<0.000050	<0.010	0.0000064	5.45	<0.00050	<0.00010	0.00094	0.212	<0.000050	<0.0010	1.63	0.0148	0.0000101
Creek 661	661-03	Surface	Duplicate	VA23B0222-002	5/9/2023	<0.000050	<0.010	<0.0000050	5.48	<0.00050	<0.00010	0.00096	0.205	<0.000050	<0.0010	1.65	0.0119	0.0000094
Creek 661	661-03	Surface	Primary	VA23A9531-006	5/1/2023	<0.000050	<0.010	0.0000123	6.04	<0.00050	0.00011	0.0011	0.36	0.00007	<0.0010	1.82	0.0724	0.0000093
Creek 661	661-03	Surface	Primary	VA23A8011-002	4/12/2023	<0.000050	<0.010	<0.0000050	9.8	<0.00050	<0.00010	<0.00050	0.124	<0.000050	<0.0010	3.03	0.0146	<0.0000050
Creek 661	661-03	Surface	Primary	VA23A5501-001	3/13/2023	<0.000050	<0.010	<0.0000050	11.4	<0.00050	<0.00010	<0.00050	0.132	<0.000050	<0.0010	3.31	0.0188	<0.0000050
Creek 661	661-03	Surface	Primary	VA23A2712-002	2/1/2023	<0.000050	<0.010	<0.0000050	9.59	<0.00050	<0.00010	0.00064	0.196	<0.000050	<0.0010	2.81	0.0227	<0.0000050
Creek 661	661-10	Surface	Primary	VA23C9238-002	12/4/2023	<0.000050	<0.010	0.0000114	10.2	<0.00050	<0.00010	<0.00050	0.171	<0.000050	<0.0010	2.66	0.00785	<0.0000050
Creek 661	661-10	Surface	Primary	VA23C6622-001	11/2/2023	<0.000050	<0.010	0.000013	10.1	<0.00050	<0.00010	<0.00050	0.188	<0.000050	<0.0010	2.64	0.0104	<0.0000050
Creek 661	661-10	Surface	Primary	VA23C5577-002	10/23/2023	<0.000050	<0.010	0.0000133	9.79	<0.00050	<0.00010	<0.00050	0.196	<0.000050	<0.0010	2.53	0.00886	<0.0000050
Creek 661	661-10	Surface	Duplicate	VA23C5577-003	10/23/2023	<0.000050	<0.010	0.0000127	9.3	<0.00050	<0.00010	<0.00050	0.187	<0.000050	<0.0010	2.57	0.00746	<0.0000050
Creek 661	661-10	Surface	Primary	VA23C4865-005	10/16/2023	<0.000050	<0.010	0.0000131	9.96	<0.00050	<0.00010	<0.00050	0.225	<0.000050	<0.0010	2.42	0.00712	<0.0000050
Creek 661	661-10	Surface	Primary	VA23C4279-003	10/10/2023	<0.000050	<0.010	0.0000133	10.4	<0.00050	<0.00010	<0.00050	0.256	<0.000050	<0.0010	2.58	0.00641	<0.0000050
Creek 661	661-10	Surface	Primary	VA23C3847-003	10/3/2023	<0.000050	<0.010	0.0000096	10.2	<0.00050	<0.00010	<0.00050	0.227	<0.000050	<0.0010	2.48	0.00657	<0.0000050
Creek 661	661-10	Surface	Primary	VA23C0875-001	9/4/2023	<0.000050	<0.010	0.0000121	10.3	<0.00050	<0.00010	<0.00050	0.277	<0.000050	<0.0010	2.4	0.00759	<0.0000050
Creek 661	661-10	Surface	Primary	VA23B9359-001	8/17/2023	<0.000050	<0.010	0.0000139	9.86	<0.00050	<0.00010	<0.00050	0.251	<0.000050	<0.0010	2.4	0.0104	<0.0000050
Creek 661	661-10	Surface	Primary	VA23B7293-001	7/25/2023	<0.000050	<0.010	0.0000207	8.82	<0.00050	<0.00010	<0.00050	0.198	0.000064	<0.0010	2.14	0.017	<0.0000050
Creek 661	661-10	Surface	Primary	VA23B3987-001	6/19/2023	<0.000050	<0.010	0.0000176	6.7	<0.00050	<0.00010	<0.00050	0.215	0.000074	<0.0010	1.67	0.0144	<0.0000050
Creek 661	661-10	Surface	Primary	VA23B2052-001	5/29/2023	<0.000050	<0.010	0.0000148	4.92	<0.00050	<0.00010	0.00054	0.13	<0.000050	<0.0010	1.23	0.00647	<0.0000050
Creek 661	661-10	Surface	Primary	VA23B1529-002	5/23/2023	<0.000050	<0.010	0.0000194	4.29	<0.00050	<0.00010	0.00069	0.196	0.000096	<0.0010	1.1	0.00985	<0.0000050
Creek 661	661-10	Surface	Primary	VA23B0766-003	5/15/2023	<0.000050	<0.010	0.0000194	3.58	<0.00050	<0.00010	0.00076	0.209	0.000096	<0.0010	0.866	0.00889	0.0000085
Creek 661	661-10	Surface	Primary	VA23B0222-003	5/9/2023	<0.000050	<0.010	0.0000238	3.42	0.00075	0.00013	0.00097	0.405	0.000343	<0.0010	0.924	0.0185	0.0000114
Creek 661	661-10	Surface	Primary	VA23A9531-001	5/1/2023	<0.000050	<0.010	0.0000424	7.07	0.0009	0.00019	0.00103	0.622	0.000307	<0.0010	1.86	0.0437	<0.0000050
Creek 661	661-10	Surface	Primary	VA23A8011-001	4/12/2023	<0.000050	<0.010	0.0000065	10.7	<0.00050	<0.00010	<0.00050	0.088	<0.000050	<0.0010	2.64	0.00751	<0.0000050

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*												
						Bismuth (Bi)-Total	Boron (B)-Total	Cadmium (Cd)-Total	Calcium (Ca)-Total	Chromium (Cr)-Total	Cobalt (Co)-Total	Copper (Cu)-Total	Iron (Fe)-Total	Lead (Pb)-Total	Lithium (Li)-Total	Magnesium (Mg)-Total	Manganese (Mn)-Total	Mercury (Hg)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Creek 661	661-10	Surface	Duplicate	VA23A8011-005	4/12/2023	<0.000050	<0.010	0.0000056	10.6	<0.00050	<0.00010	<0.00050	0.086	<0.000050	<0.0010	2.65	0.00704	<0.0000050
Creek 661	661-10	Surface	Primary	VA23A5501-002	3/13/2023	<0.000050	<0.010	0.0000057	11.1	<0.00050	<0.00010	<0.00050	0.093	<0.000050	<0.0010	2.69	0.00788	<0.0000050
Creek 661	661-10	Surface	Primary	VA23A2712-001	2/1/2023	<0.000050	<0.010	0.0000082	10.9	0.00051	<0.00010	<0.00050	0.104	<0.000050	<0.0010	2.55	0.00844	<0.0000050
Creek 661	661-10	Surface	Primary	VA23A0821-002	1/11/2023	<0.000050	<0.010	0.0000099	11.2	0.0006	<0.00010	<0.00050	0.145	<0.000050	<0.0010	2.65	0.0171	<0.0000050
Creek 661	661-20	Surface	Primary	VA23C6622-005	11/2/2023	<0.000050	<0.010	<0.0000050	19	<0.00050	<0.00010	<0.00050	0.151	<0.000050	<0.0010	5.86	0.00871	<0.0000050
Creek 661	661-20	Surface	Duplicate	VA23C6622-006	11/2/2023	<0.000050	<0.010	<0.0000050	18.7	<0.00050	<0.00010	<0.00050	0.147	<0.000050	<0.0010	5.77	0.00814	<0.0000050
Creek 661	661-20	Surface	Primary	VA23C0762-004	8/31/2023	<0.000050	<0.010	<0.0000050	19.6	<0.00050	<0.00010	<0.00050	0.128	<0.000050	<0.0010	5.82	0.00691	<0.0000050
Creek 661	661-20	Surface	Primary	VA23B7293-004	7/25/2023	<0.000050	<0.010	0.000005	17	<0.00050	<0.00010	<0.00050	0.301	<0.000050	<0.0010	4.9	0.0121	<0.0000050
Creek 661	661-20	Surface	Primary	VA23B3987-003	6/19/2023	<0.000050	<0.010	0.0000104	16.6	0.00064	0.00012	<0.00050	0.408	0.000114	<0.0010	4.39	0.0333	<0.0000050
Creek 661	661-20	Surface	Primary	VA23A9531-002	5/1/2023	<0.000050	<0.010	0.0000299	10.2	0.00122	0.00034	0.00147	0.993	0.000283	<0.0010	2.95	0.0821	0.0000083
Creek 661	661-20	Surface	Primary	VA23A8011-004	4/12/2023	<0.000050	<0.010	0.0000067	16.2	<0.00050	<0.00010	<0.00050	0.27	<0.000050	<0.0010	4.9	0.00781	<0.0000050
Creek 661	661-20	Surface	Primary	VA23A5501-003	3/13/2023	<0.000050	<0.010	<0.0000050	17.6	<0.00050	<0.00010	<0.00050	0.128	<0.000050	<0.0010	5.08	0.0057	<0.0000050
Creek 661	661-20	Surface	Primary	VA23A2670-002	2/4/2023	<0.000050	<0.010	<0.0000050	17.1	<0.00050	<0.00010	<0.00050	0.151	<0.000050	<0.0010	5.15	0.00624	<0.0000050
Creek 661	661-20	Surface	Primary	VA23A0821-003	1/11/2023	<0.000050	<0.010	<0.0000050	18.6	<0.00050	<0.00010	<0.00050	0.183	<0.000050	<0.0010	5.66	0.00698	<0.0000050
Creek 661	661-20	Surface	Duplicate	VA23A0821-004	1/11/2023	<0.000050	<0.010	<0.0000050	19.6	<0.00050	<0.00010	<0.00050	0.186	<0.000050	<0.0010	5.46	0.00728	<0.0000050
Chedakuz Creek	CC-03	Surface	Primary	VA23C9238-003	12/4/2023	<0.000050	<0.010	<0.0000050	32.2	<0.00050	<0.00010	<0.00050	0.139	<0.000050	<0.0010	9.63	0.0108	<0.0000050
Chedakuz Creek	CC-03	Surface	Primary	VA23C6622-003	11/2/2023	<0.000050	<0.010	<0.0000050	31.6	<0.00050	<0.00010	<0.00050	0.134	<0.000050	<0.0010	10	0.0173	<0.0000050
Chedakuz Creek	CC-03	Surface	Primary	VA23C5577-004	10/23/2023	<0.000050	<0.010	<0.0000050	31.1	<0.00050	<0.00010	<0.00050	0.122	<0.000050	<0.0010	9.66	0.014	<0.0000050
Chedakuz Creek	CC-03	Surface	Primary	VA23C4865-001	10/16/2023	<0.000050	<0.010	<0.0000050	32.2	<0.00050	<0.00010	<0.00050	0.136	<0.000050	<0.0010	9.27	0.0174	<0.0000050
Chedakuz Creek	CC-03	Surface	Primary	VA23C4279-001	10/10/2023	<0.000050	<0.010	<0.0000050	31.5	<0.00050	<0.00010	<0.00050	0.119	<0.000050	<0.0010	9.51	0.0154	<0.0000050
Chedakuz Creek	CC-03	Surface	Primary	VA23C3847-001	10/3/2023	<0.000050	<0.010	<0.0000050	33.4	<0.00050	<0.00010	<0.00050	0.125	<0.000050	<0.0010	9.71	0.0167	<0.0000050
Chedakuz Creek	CC-03	Surface	Primary	VA23C1491-003	9/11/2023	<0.000050	<0.010	<0.0000050	32.7	<0.00050	<0.00010	<0.00050	0.147	<0.000050	<0.0010	9.18	0.0213	<0.0000050
Chedakuz Creek	CC-03	Surface	Primary	VA23C0762-002	8/31/2023	<0.000050	<0.010	<0.0000050	30.5	<0.00050	<0.00010	<0.00050	0.147	<0.000050	<0.0010	8.5	0.0273	<0.0000050
Chedakuz Creek	CC-03	Surface	Primary	VA23B7293-005	7/25/2023	<0.000050	<0.010	<0.0000050	29.4	<0.00050	<0.00010	<0.00050	0.175	<0.000050	<0.0010	7.5	0.031	<0.0000050
Chedakuz Creek	CC-03	Surface	Primary	VA23B3987-004	6/19/2023	<0.000050	<0.010	<0.0000050	27.7	<0.00050	<0.00010	<0.00050	0.199	<0.000050	<0.0010	7.05	0.0444	<0.0000050
Chedakuz Creek	CC-03	Surface	Primary	VA23B2052-003	5/29/2023	<0.000050	<0.010	<0.0000050	20.2	<0.00050	<0.00010	<0.00050	0.14	<0.000050	<0.0010	5.49	0.0479	<0.0000050
Chedakuz Creek	CC-03	Surface	Primary	VA23B1529-003	5/23/2023	<0.000050	<0.010	<0.0000050	18.7	<0.00050	<0.00010	<0.00050	0.137	<0.000050	<0.0010	5.18	0.0481	<0.0000050
Chedakuz Creek	CC-03	Surface	Primary	VA23B0766-001	5/15/2023	<0.000050	<0.010	<0.0000050	17.3	<0.00050	<0.00010	<0.00050	0.181	<0.000050	<0.0010	4.72	0.0492	<0.0000050
Chedakuz Creek	CC-03	Surface	Primary	VA23B0222-004	5/9/2023	<0.000050	<0.010	<0.0000050	11.9	<0.00050	<0.00010	<0.00050	0.241	<0.000050	<0.0010	3.32	0.0356	<0.0000050
Chedakuz Creek	CC-03	Surface	Primary	VA23A9531-004	5/1/2023	<0.000050	<0.010	0.0000095	12.7	0.00068	0.00025	0.00106	0.812	0.000122	<0.0010	3.74	0.114	0.0000054
Chedakuz Creek	CC-03	Surface	Duplicate	VA23A9531-005	5/1/2023	<0.000050	<0.010	0.0000055	12.7	0.0007	0.00025	0.00114	0.787	0.00011	<0.0010	3.55	0.106	0.0000053
Chedakuz Creek	CC-03	Surface	Primary	VA23A8011-003	4/12/2023	<0.000050	<0.010	<0.0000050	23.5	<0.00050	<0.00010	<0.00050	0.179	<0.000050	<0.0010	6.95	0.0233	<0.0000050
Chedakuz Creek	CC-03	Surface	Primary	VA23A5501-004	3/13/2023	<0.000050	<0.010	<0.0000050	26.8	<0.00050	<0.00010	<0.00050	0.085	<0.000050	<0.0010	7.29	0.0162	<0.0000050
Chedakuz Creek	CC-03	Surface	Duplicate	VA23A5501-005	3/13/2023	<0.000050	<0.010	<0.0000050	27.2	<0.00050	<0.00010	<0.00050	0.087	<0.000050	<0.0010	7.43	0.0172	<0.0000050
Chedakuz Creek	CC-03	Surface	Primary	VA23A2712-003	2/1/2023	<0.000050	<0.010	<0.0000050	26.1	<0.00050	<0.00010	<0.00050	0.116	<0.000050	<0.0010	7.26	0.0202	<0.0000050
Chedakuz Creek	CC-03	Surface	Primary	VA23A0821-001	1/11/2023	<0.000050	<0.010	<0.0000050	30	<0.00050	<0.00010	0.0006	0.14	0.000146	<0.0010	8.02	0.028	<0.0000050
Chedakuz Creek	CC-05	Surface	Primary	VA23C6622-004	11/2/2023	<0.000050	<0.010	<0.0000050	23.8	<0.00050	<0.00010	<0.00050	0.149	<0.000050	<0.0010	7.45	0.0135	<0.0000050
Chedakuz Creek	CC-05	Surface	Primary	VA23C5577-005	10/23/2023	<0.000050	<0.010	<0.0000050	23	<0.00050	<0.00010	<0.00050	0.127	<0.000050	<0.0010	7.28	0.00888	<0.0000050
Chedakuz Creek	CC-05	Surface	Primary	VA23C4865-002	10/16/2023	<0.000050	<0.010	<0.0000050	26.1	<0.00050	<0.00010	<0.00050	0.112	<0.000050	<0.0010	7.56	0.0104	<0.0000050
Chedakuz Creek	CC-05	Surface	Primary	VA23C4279-002	10/10/2023	<0.000050	<0.010	<0.0000050	25.2	<0.00050	<0.00010	<0.00050	0.112	<0.000050	<0.0010	7.27	0.0102	<0.0000050
Chedakuz Creek	CC-05	Surface	Primary	VA23C3847-002	10/3/2023	<0.000050	<0.010	<0.0000050	26.7	<0.00050	<0.00010	<0.00050	0.106	<0.000050	<0.0010	7.45	0.00909	<0.0000050
Chedakuz Creek	CC-05	Surface	Primary	VA23C0762-001	8/31/2023	<0.000050	<0.010	<0.0000050	25.4	<0.00050	<0.00010	<0.00050	0.154	<0.000050	<0.0010	7.09	0.0208	<0.0000050
Chedakuz Creek	CC-05	Surface	Duplicate	VA23C0762-003	8/31/2023	<0.000050	<0.010	<0.0000050	26.1	<0.00050	0.00013	<0.00050	0.149	<0.000050	<0.0010	7.15	0.0162	<0.0000050
Chedakuz Creek	CC-05	Surface	Primary	VA23B2052-004	5/29/2023	<0.000050	<0.010	0.0000055	17.9	<0.00050	<0.00010	<0.00050	0.168	<0.000050	<0.0010	4.82	0.0361	<0.0000050
Chedakuz Creek	CC-05	Surface	Primary	VA23B1529-004	5/23/2023	<0.000050	<0.010	<0.0000050	15.8	<0.00050	<0.00010	<0.00050	0.201	<0.000050	<0.0010	4.45	0.0364	<0.0000050
Chedakuz Creek	CC-05	Surface	Primary	VA23B0766-002	5/15/2023	<0.000050	<0.010	0.0000066	12.4	<0.00050	0.0001	0.00066	0.282	0.000056	<0.0010	3.11	0.0352	0.0000054

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*												
						Bismuth (Bi)-Total	Boron (B)-Total	Cadmium (Cd)-Total	Calcium (Ca)-Total	Chromium (Cr)-Total	Cobalt (Co)-Total	Copper (Cu)-Total	Iron (Fe)-Total	Lead (Pb)-Total	Lithium (Li)-Total	Magnesium (Mg)-Total	Manganese (Mn)-Total	Mercury (Hg)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Chedakuz Creek	CC-05	Surface	Primary	VA23B0222-005	5/9/2023	<0.000050	<0.010	0.0000155	8.46	0.00071	0.0002	0.00104	0.582	0.000147	<0.0010	2.43	0.0428	0.0000059
Chedakuz Creek	CC-05	Surface	Primary	VA23A9531-003	5/1/2023	<0.000050	<0.010	0.0000125	12.3	0.00112	0.00044	0.00152	1.26	0.000265	<0.0010	3.53	0.155	0.0000064
Chedakuz Creek	CC-05	Surface	Primary	VA23A2712-004	2/1/2023	<0.000050	<0.010	<0.0000050	22.2	<0.00050	<0.00010	<0.00050	0.114	<0.000050	<0.0010	6.44	0.00712	<0.0000050
Chedakuz Creek	CC-10	Surface	Primary	VA23C6498-005	11/1/2023	<0.000050	<0.010	<0.0000050	20.1	<0.00050	<0.00010	<0.00050	0.018	<0.000050	<0.0010	4.66	0.0101	<0.0000050
Chedakuz Creek	CC-10	Surface	Primary	VA23B9219-006	8/16/2023	<0.000050	<0.010	<0.0000050	20	<0.00050	<0.00010	<0.00050	0.014	<0.000050	<0.0010	4.73	0.00487	<0.0000050
Chedakuz Creek	CC-10	Surface	Primary	VA23B0508-006	5/11/2023	<0.000050	<0.010	0.0000065	18.3	<0.00050	0.00015	0.001	0.409	0.000239	<0.0010	4.51	0.0295	<0.0000050
Chedakuz Creek	CC-10	Surface	Primary	VA23A3177-008	2/8/2023	<0.000050	<0.010	<0.0000050	20.5	<0.00050	<0.00010	<0.00050	0.014	<0.000050	<0.0010	4.71	0.00256	<0.0000050
Chedakuz Creek	CC-15	Surface	Primary	VA23C9626-003	12/6/2023	<0.000050	<0.010	<0.0000050	18.3	<0.00050	<0.00010	<0.00050	0.158	<0.000050	<0.0010	4.27	0.0213	<0.0000050
Chedakuz Creek	CC-15	Surface	Primary	VA23C6498-004	11/1/2023	<0.000050	<0.010	<0.0000050	19.4	<0.00050	<0.00010	<0.00050	0.288	<0.000050	<0.0010	4.43	0.0272	<0.0000050
Chedakuz Creek	CC-15	Surface	Primary	VA23C5771-003	10/24/2023	<0.000050	<0.010	<0.0000050	18.2	<0.00050	<0.00010	<0.00050	0.234	<0.000050	<0.0010	4.26	0.0326	<0.0000050
Chedakuz Creek	CC-15	Surface	Primary	VA23C5184-004	10/20/2023	<0.000050	<0.010	<0.0000050	19.8	<0.00050	<0.00010	<0.00050	0.18	<0.000050	<0.0010	5.03	0.0171	<0.0000050
Chedakuz Creek	CC-15	Surface	Primary	VA23C4458-002	10/11/2023	<0.000050	<0.010	<0.0000050	19.2	<0.00050	<0.00010	<0.00050	0.235	<0.000050	<0.0010	4.7	0.0286	<0.0000050
Chedakuz Creek	CC-15	Surface	Primary	VA23C3871-002	10/4/2023	<0.000050	<0.010	<0.0000050	19.4	<0.00050	<0.00010	<0.00050	0.228	<0.000050	<0.0010	5.07	0.0245	<0.0000050
Chedakuz Creek	CC-15	Surface	Primary	VA23C2546-004	9/20/2023	<0.000050	<0.010	0.0000053	19	<0.00050	<0.00010	<0.00050	0.225	<0.000050	<0.0010	4.29	0.035	<0.0000050
Chedakuz Creek	CC-15	Surface	Primary	VA23B9868-004	8/23/2023	<0.000050	<0.010	0.0000057	17.7	<0.00050	<0.00010	0.00057	0.238	<0.000050	<0.0010	4.42	0.0305	<0.0000050
Chedakuz Creek	CC-15	Surface	Primary	VA23B7734-006	7/31/2023	<0.000050	<0.010	<0.0000050	17.6	<0.00050	<0.00010	<0.00050	0.174	<0.000050	<0.0010	4.05	0.0228	<0.0000050
Chedakuz Creek	CC-15	Surface	Primary	VA23B2847-002	6/6/2023	<0.000050	<0.010	<0.0000050	18.3	<0.00050	<0.00010	0.00064	0.205	<0.000050	<0.0010	4.25	0.019	<0.0000050
Chedakuz Creek	CC-15	Surface	Primary	VA23B2219-005	5/30/2023	<0.000050	<0.010	<0.0000050	16.8	<0.00050	<0.00010	<0.00050	0.111	<0.000050	<0.0010	4.11	0.0193	<0.0000050
Chedakuz Creek	CC-15	Surface	Primary	VA23B1690-003	5/24/2023	<0.000050	<0.010	<0.0000050	16.8	<0.00050	<0.00010	0.00052	0.16	<0.000050	<0.0010	3.65	0.0166	<0.0000050
Chedakuz Creek	CC-15	Surface	Primary	VA23B1108-004	5/17/2023	<0.000050	<0.010	<0.0000050	15.4	<0.00050	<0.00010	0.00077	0.251	0.000116	<0.0010	3.26	0.0167	<0.0000050
Chedakuz Creek	CC-15	Surface	Primary	VA23B0508-003	5/11/2023	<0.000050	<0.010	0.0000052	13	<0.00050	0.00011	0.00079	0.331	0.000085	<0.0010	3.09	0.02	<0.0000050
Chedakuz Creek	CC-15	Surface	Duplicate	VA23B0508-007	5/11/2023	<0.000050	<0.010	0.000005	12.9	<0.00050	0.00012	0.00081	0.333	0.0001	<0.0010	3.02	0.0198	<0.0000050
Chedakuz Creek	CC-15	Surface	Primary	VA23A9782-002	5/3/2023	<0.000050	<0.010	0.0000161	12.8	0.00152	0.00053	0.00205	1.56	0.000452	<0.0010	2.71	0.0976	0.0000084
Chedakuz Creek	CC-15	Surface	Primary	VA23A9207-002	4/26/2023	<0.000050	<0.010	<0.0000050	16.5	<0.00050	0.00014	0.00075	0.492	0.00008	<0.0010	3.93	0.064	<0.0000050
Chedakuz Creek	CC-15	Surface	Primary	VA23A6844-003	3/27/2023	<0.000050	<0.010	0.0000067	19.8	<0.00050	<0.00010	0.0015	0.323	0.000107	<0.0010	4.8	0.0337	<0.0000050
Chedakuz Creek	CC-15	Surface	Primary	VA23A2861-001	2/6/2023	<0.000050	<0.010	<0.0000050	19.1	<0.00050	<0.00010	<0.00050	0.114	<0.000050	<0.0010	4.77	0.0186	<0.0000050
Chedakuz Creek	CC-15	Surface	Primary	VA23A1889-002	1/24/2023	<0.000050	<0.010	<0.0000050	21	<0.00050	<0.00010	<0.00050	0.149	<0.000050	<0.0010	5.13	0.0248	<0.0000050
Chedakuz Creek	CC-20	Surface	Primary	VA23C9626-002	12/6/2023	<0.000050	<0.010	<0.0000050	18.7	<0.00050	<0.00010	<0.00050	0.153	<0.000050	<0.0010	4.31	0.0227	<0.0000050
Chedakuz Creek	CC-20	Surface	Primary	VA23C6498-003	11/1/2023	<0.000050	<0.010	<0.0000050	19.9	<0.00050	<0.00010	<0.00050	0.18	<0.000050	<0.0010	4.53	0.0237	<0.0000050
Chedakuz Creek	CC-20	Surface	Primary	VA23C5771-004	10/24/2023	<0.000050	<0.010	<0.0000050	18.6	<0.00050	<0.00010	<0.00050	0.212	<0.000050	<0.0010	4.38	0.0266	<0.0000050
Chedakuz Creek	CC-20	Surface	Primary	VA23C5184-005	10/20/2023	<0.000050	<0.010	<0.0000050	19.8	<0.00050	<0.00010	<0.00050	0.176	<0.000050	<0.0010	5.03	0.0141	<0.0000050
Chedakuz Creek	CC-20	Surface	Primary	VA23C4458-003	10/11/2023	<0.000050	<0.010	<0.0000050	19.7	<0.00050	<0.00010	<0.00050	0.204	<0.000050	<0.0010	4.79	0.021	<0.0000050
Chedakuz Creek	CC-20	Surface	Primary	VA23C3871-003	10/4/2023	<0.000050	<0.010	<0.0000050	19.8	<0.00050	<0.00010	<0.00050	0.221	<0.000050	<0.0010	5.15	0.0234	<0.0000050
Chedakuz Creek	CC-20	Surface	Duplicate	VA23C3871-004	10/4/2023	<0.000050	<0.010	<0.0000050	20.4	<0.00050	<0.00010	<0.00050	0.216	<0.000050	<0.0010	5.02	0.0232	<0.0000050
Chedakuz Creek	CC-20	Surface	Primary	VA23C2546-003	9/20/2023	<0.000050	<0.010	<0.0000050	19.4	<0.00050	<0.00010	<0.00050	0.214	<0.000050	<0.0010	4.38	0.0246	<0.0000050
Chedakuz Creek	CC-20	Surface	Primary	VA23B9868-005	8/23/2023	<0.000050	<0.010	<0.0000050	18.1	<0.00050	<0.00010	<0.00050	0.215	<0.000050	<0.0010	4.39	0.0286	<0.0000050
Chedakuz Creek	CC-20	Surface	Primary	VA23B7734-007	7/31/2023	<0.000050	<0.010	<0.0000050	17.2	<0.00050	<0.00010	<0.00050	0.185	<0.000050	<0.0010	4.01	0.0269	<0.0000050
Chedakuz Creek	CC-20	Surface	Primary	VA23B4330-006	6/21/2023	<0.000050	<0.010	<0.0000050	17	<0.00050	<0.00010	<0.00050	0.114	<0.000050	<0.0010	3.82	0.0191	<0.0000050
Chedakuz Creek	CC-20	Surface	Primary	VA23B2219-002	5/30/2023	<0.000050	<0.010	<0.0000050	16.2	<0.00050	<0.00010	<0.00050	0.121	<0.000050	<0.0010	4.14	0.0179	<0.0000050
Chedakuz Creek	CC-20	Surface	Duplicate	VA23B2219-003	5/30/2023	<0.000050	<0.010	<0.0000050	16.5	<0.00050	<0.00010	<0.00050	0.118	<0.000050	<0.0010	4.06	0.0177	<0.0000050
Chedakuz Creek	CC-20	Surface	Primary	VA23B1690-004	5/24/2023	<0.000050	<0.010	<0.0000050	15.9	<0.00050	<0.00010	<0.00050	0.137	<0.000050	<0.0010	3.6	0.0157	<0.0000050
Chedakuz Creek	CC-20	Surface	Primary	VA23B1108-003	5/17/2023	<0.000050	<0.010	0.000005	14.9	<0.00050	<0.00010	0.00066	0.251	0.000059	<0.0010	3.21	0.0172	<0.0000050
Chedakuz Creek	CC-20	Surface	Primary	VA23B0508-004	5/11/2023	<0.000050	<0.010	0.0000062	13.2	<0.00050	0.00012	0.00092	0.331	0.000096	<0.0010	3.09	0.0218	<0.0000050
Chedakuz Creek	CC-20	Surface	Primary	VA23A9782-003	5/3/2023	<0.000050	<0.010	0.0000151	12.7	0.00083	0.00032	0.00155	0.986	0.000272	<0.0010	2.55	0.0692	0.0000075
Chedakuz Creek	CC-20	Surface	Primary	VA23A9076-002	4/25/2023	<0.000050	<0.010	<0.0000050	18.3	<0.00050	<0.00010	0.00054	0.288	<0.000050	<0.0010	4.27	0.0426	<0.0000050
Chedakuz Creek	CC-20	Surface	Primary	VA23A6844-002	3/27/2023	<0.000050	<0.010	<0.0000050	20	<0.00050	<0.00010	<0.00050	0.202	<0.000050	<0.0010	4.92	0.0334	<0.0000050

Notes:
"-" indicates parameter was not analyzed.
"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*												
						Bismuth (Bi)-Total	Boron (B)-Total	Cadmium (Cd)-Total	Calcium (Ca)-Total	Chromium (Cr)-Total	Cobalt (Co)-Total	Copper (Cu)-Total	Iron (Fe)-Total	Lead (Pb)-Total	Lithium (Li)-Total	Magnesium (Mg)-Total	Manganese (Mn)-Total	Mercury (Hg)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Chedakuz Creek	CC-20	Surface	Primary	VA23A2861-002	2/6/2023	<0.000050	<0.010	<0.0000050	19.2	<0.00050	<0.00010	<0.00050	0.116	<0.000050	<0.0010	4.78	0.023	<0.0000050
Chedakuz Creek	CC-20	Surface	Primary	VA23A1412-002	1/18/2023	<0.000050	<0.010	<0.0000050	19.5	<0.00050	<0.00010	<0.00050	0.119	<0.000050	<0.0010	4.54	0.0247	<0.0000050
Chedakuz Creek	CC-30	Surface	Primary	VA23C6498-002	11/1/2023	<0.000050	<0.010	0.0000051	22.5	<0.00050	<0.00010	<0.00050	0.379	<0.000050	<0.0010	5.38	0.0307	<0.0000050
Chedakuz Creek	CC-30	Surface	Primary	VA23C0393-002	8/29/2023	<0.000050	<0.010	<0.0000050	20.6	<0.00050	<0.00010	<0.00050	0.279	<0.000050	<0.0010	4.8	0.0292	<0.0000050
Chedakuz Creek	CC-30	Surface	Duplicate	VA23C0393-003	8/29/2023	<0.000050	<0.010	<0.0000050	20	<0.00050	<0.00010	<0.00050	0.289	<0.000050	<0.0010	4.8	0.0275	<0.0000050
Chedakuz Creek	CC-30	Surface	Primary	VA23B0508-001	5/11/2023	<0.000050	<0.010	<0.0000050	12.2	<0.00050	0.00014	0.00088	0.475	0.000094	<0.0010	2.99	0.0368	<0.0000050
Chedakuz Creek	CC-30	Surface	Primary	VA23A3560-001	2/14/2023	<0.000050	<0.010	<0.0000050	21.8	<0.00050	<0.00010	<0.00050	0.377	<0.000050	<0.0010	5.28	0.0577	<0.0000050
Chedakuz Creek	CC-40	Surface	Primary	VA23C9626-001	12/6/2023	<0.000050	<0.010	<0.0000050	22.4	<0.00050	<0.00010	<0.00050	0.328	<0.000050	<0.0010	5.87	0.0275	<0.0000050
Chedakuz Creek	CC-40	Surface	Primary	VA23C6498-001	11/1/2023	<0.000050	<0.010	<0.0000050	23.4	<0.00050	<0.00010	<0.00050	0.418	<0.000050	<0.0010	6.23	0.0316	<0.0000050
Chedakuz Creek	CC-40	Surface	Primary	VA23C5771-001	10/24/2023	<0.000050	<0.010	<0.0000050	21.1	<0.00050	<0.00010	<0.00050	0.457	<0.000050	<0.0010	5.42	0.0368	<0.0000050
Chedakuz Creek	CC-40	Surface	Duplicate	VA23C5771-002	10/24/2023	<0.000050	<0.010	<0.0000050	21.3	<0.00050	<0.00010	<0.00050	0.508	<0.000050	<0.0010	5.38	0.0506	<0.0000050
Chedakuz Creek	CC-40	Surface	Primary	VA23C5184-001	10/20/2023	<0.000050	<0.010	<0.0000050	25.5	<0.00050	<0.00010	<0.00050	0.367	<0.000050	<0.0010	6.51	0.0203	<0.0000050
Chedakuz Creek	CC-40	Surface	Primary	VA23C4458-001	10/11/2023	<0.000050	<0.010	<0.0000050	23.3	<0.00050	<0.00010	<0.00050	0.392	<0.000050	<0.0010	6.15	0.0283	<0.0000050
Chedakuz Creek	CC-40	Surface	Primary	VA23C3871-001	10/4/2023	<0.000050	<0.010	<0.0000050	24.1	<0.00050	<0.00010	<0.00050	0.398	<0.000050	<0.0010	6.34	0.0282	<0.0000050
Chedakuz Creek	CC-40	Surface	Primary	VA23C2546-005	9/20/2023	<0.000050	<0.010	<0.0000050	23.5	<0.00050	<0.00010	<0.00050	0.348	<0.000050	<0.0010	5.9	0.0291	<0.0000050
Chedakuz Creek	CC-40	Surface	Primary	VA23C0393-001	8/29/2023	<0.000050	<0.010	<0.0000050	20.7	<0.00050	<0.00010	<0.00050	0.285	<0.000050	<0.0010	5.07	0.0328	<0.0000050
Chedakuz Creek	CC-40	Surface	Primary	VA23B7523-007	7/27/2023	<0.000050	<0.010	<0.0000050	19.3	<0.00050	<0.00010	<0.00050	0.266	<0.000050	<0.0010	4.9	0.0332	<0.0000050
Chedakuz Creek	CC-40	Surface	Primary	VA23B2847-001	6/6/2023	<0.000050	<0.010	<0.0000050	18.8	<0.00050	<0.00010	0.00062	0.264	<0.000050	<0.0010	4.74	0.0428	<0.0000050
Chedakuz Creek	CC-40	Surface	Primary	VA23B2219-001	5/30/2023	<0.000050	<0.010	0.0000054	16.2	0.00052	0.00021	0.00081	0.58	0.00014	<0.0010	4.15	0.0562	<0.0000050
Chedakuz Creek	CC-40	Surface	Primary	VA23B1690-001	5/24/2023	<0.000050	<0.010	<0.0000050	15.9	<0.00050	0.0001	0.00063	0.347	<0.000050	<0.0010	3.68	0.0444	<0.0000050
Chedakuz Creek	CC-40	Surface	Primary	VA23B1108-001	5/17/2023	<0.000050	<0.010	0.0000062	14.4	<0.00050	0.00016	0.00087	0.522	0.00009	<0.0010	3.16	0.049	<0.0000050
Chedakuz Creek	CC-40	Surface	Duplicate	VA23B1108-002	5/17/2023	<0.000050	<0.010	0.0000055	13.8	<0.00050	0.00016	0.00089	0.522	0.000086	<0.0010	3.14	0.048	<0.0000050
Chedakuz Creek	CC-40	Surface	Primary	VA23B0508-002	5/11/2023	<0.000050	<0.010	0.0000072	11.9	0.00053	0.00017	0.00099	0.566	0.000123	<0.0010	2.99	0.0444	0.0000064
Chedakuz Creek	CC-40	Surface	Primary	VA23A9782-001	5/3/2023	<0.000050	<0.010	0.0000126	13.9	0.00096	0.00038	0.00153	1.45	0.000252	<0.0010	3.18	0.138	0.0000054
Chedakuz Creek	CC-40	Surface	Primary	VA23A9207-001	4/26/2023	<0.000050	<0.010	0.000006	18.9	<0.00050	0.00012	0.00065	0.665	0.000059	<0.0010	4.94	0.0602	<0.0000050
Chedakuz Creek	CC-40	Surface	Primary	VA23A6844-001	3/27/2023	<0.000050	<0.010	<0.0000050	22.4	<0.00050	<0.00010	<0.00050	0.362	<0.000050	<0.0010	5.86	0.0451	<0.0000050
Chedakuz Creek	CC-40	Surface	Primary	VA23A3035-001	2/7/2023	<0.000050	<0.010	<0.0000050	21.3	<0.00050	<0.00010	<0.00050	0.294	<0.000050	<0.0010	5.31	0.0393	<0.0000050
Chedakuz Creek	CC-40	Surface	Primary	VA23A1412-001	1/18/2023	<0.000050	<0.010	<0.0000050	21.9	<0.00050	<0.00010	<0.00050	0.274	<0.000050	<0.0010	5.64	0.0436	<0.0000050
Creek 705	705-05	Surface	Primary	VA23C9661-004	12/7/2023	<0.000050	<0.010	<0.0000050	7.11	<0.00050	<0.00010	<0.00050	0.178	<0.000050	<0.0010	1.17	0.0088	<0.0000050
Creek 705	705-05	Surface	Primary	VA23C7190-010	11/9/2023	<0.000050	<0.010	<0.0000050	7.18	<0.00050	<0.00010	<0.00050	0.205	<0.000050	<0.0010	1.16	0.00984	<0.0000050
Creek 705	705-05	Surface	Duplicate	VA23C7190-011	11/9/2023	<0.000050	<0.010	<0.0000050	7.11	<0.00050	<0.00010	<0.00050	0.201	<0.000050	<0.0010	1.16	0.00875	0.000006
Creek 705	705-05	Surface	Primary	VA23C4014-006	10/6/2023	<0.000050	<0.010	<0.0000050	6.75	<0.00050	<0.00010	<0.00050	0.228	<0.000050	<0.0010	1.18	0.00917	<0.0000050
Creek 705	705-05	Surface	Primary	VA23C1674-001	9/12/2023	<0.000050	<0.010	<0.0000050	7.69	0.0006	<0.00010	<0.00050	0.241	<0.000050	<0.0010	1.22	0.0102	<0.0000050
Creek 705	705-05	Surface	Primary	VA23B8906-003	8/14/2023	<0.000050	<0.010	<0.0000050	6.59	<0.00050	<0.00010	<0.00050	0.206	<0.000050	<0.0010	1.06	0.0118	<0.0000050
Creek 705	705-05	Surface	Duplicate	VA23B8906-004	8/14/2023	<0.000050	<0.010	<0.0000050	6.64	<0.00050	<0.00010	<0.00050	0.203	<0.000050	<0.0010	1.06	0.0129	<0.0000050
Creek 705	705-05	Surface	Primary	VA23B7523-003	7/27/2023	<0.000050	<0.010	<0.0000050	6.37	<0.00050	<0.00010	<0.00050	0.197	<0.000050	<0.0010	0.953	0.00975	<0.0000050
Creek 705	705-05	Surface	Primary	VA23B3687-004	6/14/2023	<0.000050	<0.010	<0.0000050	5.43	<0.00050	<0.00010	<0.00050	0.135	<0.000050	<0.0010	0.938	0.00573	<0.0000050
Creek 705	705-05	Surface	Primary	VA23B0364-002	5/10/2023	<0.000050	<0.010	<0.0000050	4.15	<0.00050	<0.00010	0.00056	0.166	<0.000050	<0.0010	0.654	0.00884	0.0000086
Creek 705	705-05	Surface	Primary	VA23A8158-003	4/13/2023	<0.000050	<0.010	<0.0000050	8.54	<0.00050	<0.00010	0.00058	0.189	<0.000050	<0.0010	1.66	0.00585	<0.0000050
Creek 705	705-05	Surface	Primary	VA23A6844-006	3/28/2023	<0.000050	<0.010	<0.0000050	6.37	<0.00050	<0.00010	<0.00050	0.19	<0.000050	<0.0010	1.11	0.00706	<0.0000050
Creek 705	705-05	Surface	Primary	VA23A3268-004	2/9/2023	<0.000050	<0.010	<0.0000050	6.22	<0.00050	<0.00010	<0.00050	0.136	<0.000050	<0.0010	1.08	0.00704	<0.0000050
Creek 705	705-05	Surface	Primary	VA23A1264-002	1/17/2023	<0.000050	<0.010	<0.0000050	6.12	<0.00050	<0.00010	<0.00050	0.182	<0.000050	<0.0010	1.11	0.00818	<0.0000050
Creek 705	705-10	Surface	Primary	VA23C9661-005	12/7/2023	<0.000050	<0.010	<0.0000050	7.98	<0.00050	<0.00010	<0.00050	0.078	<0.000050	<0.0010	1.55	0.00173	<0.0000050
Creek 705	705-10	Surface	Primary	VA23C6880-001	11/6/2023	<0.000050	<0.010	<0.0000050	8.38	<0.00050	<0.00010	<0.00050	0.14	<0.000050	<0.0010	1.48	0.00344	<0.0000050
Creek 705	705-10	Surface	Primary	VA23C6383-004	10/31/2023	<0.000050	<0.010	<0.0000050	9.51	<0.00050	<0.00010	<0.00050	0.036	<0.000050	<0.0010	1.78	0.00116	<0.0000050
Creek 705	705-10	Surface	Duplicate	VA23C6383-006	10/31/2023	<0.000050	<0.010	0.0000055	12.1	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	1.3	0.00014	<0.0000050

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*												
						Bismuth (Bi)-Total	Boron (B)-Total	Cadmium (Cd)-Total	Calcium (Ca)-Total	Chromium (Cr)-Total	Cobalt (Co)-Total	Copper (Cu)-Total	Iron (Fe)-Total	Lead (Pb)-Total	Lithium (Li)-Total	Magnesium (Mg)-Total	Manganese (Mn)-Total	Mercury (Hg)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Creek 705	705-10	Surface	Primary	VA23C5894-004	10/25/2023	<0.000050	<0.010	<0.0000050	10.1	<0.00050	<0.00010	<0.00050	0.026	<0.000050	<0.0010	1.89	0.00112	<0.0000050
Creek 705	705-10	Surface	Primary	VA23C4858-004	10/17/2023	<0.000050	<0.010	<0.0000050	8.3	<0.00050	<0.00010	<0.00050	0.032	<0.000050	<0.0010	1.6	0.00133	<0.0000050
Creek 705	705-10	Surface	Primary	VA23C4586-005	10/14/2023	<0.000050	<0.010	<0.0000050	8.41	<0.00050	<0.00010	<0.00050	0.027	<0.000050	<0.0010	1.57	0.00121	<0.0000050
Creek 705	705-10	Surface	Primary	VA23C4014-007	10/6/2023	<0.000050	<0.010	<0.0000050	8.43	<0.00050	<0.00010	<0.00050	0.043	<0.000050	<0.0010	1.52	0.0014	<0.0000050
Creek 705	705-10	Surface	Primary	VA23C1674-002	9/12/2023	<0.000050	<0.010	<0.0000050	8.55	0.00058	<0.00010	<0.00050	0.037	<0.000050	<0.0010	1.55	0.00214	<0.0000050
Creek 705	705-10	Surface	Primary	VA23B8906-002	8/14/2023	<0.000050	<0.010	0.0000051	7.33	<0.00050	<0.00010	<0.00050	0.077	<0.000050	<0.0010	1.32	0.00312	<0.0000050
Creek 705	705-10	Surface	Primary	VA23B7523-002	7/27/2023	<0.000050	<0.010	<0.0000050	6.78	<0.00050	<0.00010	0.0006	0.143	<0.000050	<0.0010	1.19	0.00524	<0.0000050
Creek 705	705-10	Surface	Primary	VA23B3687-005	6/14/2023	<0.000050	<0.010	<0.0000050	7.56	<0.00050	<0.00010	<0.00050	0.044	<0.000050	<0.0010	1.35	0.00161	<0.0000050
Creek 705	705-10	Surface	Primary	VA23B2224-004	5/31/2023	<0.000050	<0.010	<0.0000050	7.07	<0.00050	<0.00010	0.00056	0.071	<0.000050	<0.0010	1.23	0.00259	<0.0000050
Creek 705	705-10	Surface	Primary	VA23B1379-005	5/22/2023	<0.000050	<0.010	<0.0000050	5.89	<0.00050	<0.00010	0.00059	0.118	<0.000050	<0.0010	0.986	0.00533	0.0000052
Creek 705	705-10	Surface	Primary	VA23B0766-009	5/16/2023	<0.000050	<0.010	<0.0000050	4.44	<0.00050	<0.00010	0.00067	0.189	<0.000050	<0.0010	0.777	0.00754	0.0000084
Creek 705	705-10	Surface	Primary	VA23B0364-003	5/10/2023	<0.000050	<0.010	<0.0000050	4.82	<0.00050	<0.00010	0.00076	0.233	0.000056	<0.0010	0.844	0.00914	0.0000092
Creek 705	705-10	Surface	Primary	VA23A9638-001	5/2/2023	<0.000050	<0.010	0.0000128	5.42	<0.00050	0.00012	0.00183	0.423	0.000095	<0.0010	1.01	0.0162	0.0000115
Creek 705	705-10	Surface	Primary	VA23A8158-001	4/13/2023	<0.000050	<0.010	<0.0000050	8.37	<0.00050	<0.00010	0.00054	0.143	<0.000050	<0.0010	1.66	0.00442	<0.0000050
Creek 705	705-10	Surface	Duplicate	VA23A8158-002	4/13/2023	<0.000050	<0.010	<0.0000050	8.53	<0.00050	<0.00010	<0.00050	0.146	<0.000050	<0.0010	1.64	0.00437	<0.0000050
Creek 705	705-10	Surface	Primary	VA23A6844-005	3/27/2023	<0.000050	<0.010	<0.0000050	8.13	<0.00050	<0.00010	<0.00050	0.07	<0.000050	<0.0010	1.64	0.00215	<0.0000050
Creek 705	705-10	Surface	Primary	VA23A3268-005	2/9/2023	<0.000050	<0.010	<0.0000050	7.11	<0.00050	<0.00010	<0.00050	0.063	<0.000050	<0.0010	1.38	0.00215	<0.0000050
Creek 705	705-10	Surface	Primary	VA23A1264-003	1/17/2023	<0.000050	<0.010	<0.0000050	7.26	<0.00050	<0.00010	0.00054	0.083	<0.000050	<0.0010	1.49	0.00221	<0.0000050
Fawnie Creek	FC-01	Surface	Primary	VA23C9661-006	12/7/2023	<0.000050	<0.010	0.0000064	12	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	1.34	0.00011	<0.0000050
Fawnie Creek	FC-01	Surface	Primary	VA23C6880-002	11/6/2023	<0.000050	<0.010	0.0000055	11.4	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	1.21	0.00014	<0.0000050
Fawnie Creek	FC-01	Surface	Primary	VA23C6383-005	10/31/2023	<0.000050	<0.010	<0.0000050	9.53	<0.00050	<0.00010	<0.00050	0.036	<0.000050	<0.0010	1.77	0.00114	<0.0000050
Fawnie Creek	FC-01	Surface	Primary	VA23C5894-005	10/25/2023	<0.000050	<0.010	0.0000058	12.9	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	1.31	0.00024	<0.0000050
Fawnie Creek	FC-01	Surface	Primary	VA23C4858-005	10/17/2023	<0.000050	<0.010	0.0000059	11	<0.00050	<0.00010	<0.00050	0.013	<0.000050	<0.0010	1.19	0.00059	<0.0000050
Fawnie Creek	FC-01	Surface	Duplicate	VA23C4858-006	10/17/2023	<0.000050	<0.010	0.0000051	11.5	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	1.2	0.00036	<0.0000050
Fawnie Creek	FC-01	Surface	Primary	VA23C4586-006	10/14/2023	<0.000050	<0.010	<0.0000050	11.8	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	1.26	0.00016	<0.0000050
Fawnie Creek	FC-01	Surface	Primary	VA23C4014-008	10/6/2023	<0.000050	<0.010	<0.0000050	11.3	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	1.19	0.00014	<0.0000050
Fawnie Creek	FC-01	Surface	Primary	VA23C0875-004	9/4/2023	<0.000050	<0.010	0.0000067	11.9	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	1.22	0.00038	<0.0000050
Fawnie Creek	FC-01	Surface	Primary	VA23B8906-001	8/14/2023	<0.000050	<0.010	0.0000077	9.97	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	1.01	0.00065	<0.0000050
Fawnie Creek	FC-01	Surface	Primary	VA23B7523-001	7/27/2023	<0.000050	<0.010	0.0000082	9.44	<0.00050	<0.00010	<0.00050	0.011	<0.000050	<0.0010	0.917	0.00029	<0.0000050
Fawnie Creek	FC-01	Surface	Primary	VA23B4330-001	6/21/2023	<0.000050	<0.010	0.0000087	7.04	<0.00050	<0.00010	<0.00050	0.021	<0.000050	<0.0010	0.684	0.00047	<0.0000050
Fawnie Creek	FC-01	Surface	Primary	VA23B2224-003	5/31/2023	<0.000050	<0.010	0.0000054	6.48	<0.00050	<0.00010	0.00056	0.026	<0.000050	<0.0010	0.634	0.00066	<0.0000050
Fawnie Creek	FC-01	Surface	Primary	VA23B1379-006	5/22/2023	<0.000050	<0.010	0.0000148	5.09	<0.00050	<0.00010	0.00064	0.071	<0.000050	<0.0010	0.445	0.00197	<0.0000050
Fawnie Creek	FC-01	Surface	Primary	VA23B0766-006	5/15/2023	<0.000050	<0.010	0.0000486	4.02	0.00064	0.00045	0.0016	0.817	0.000385	<0.0010	0.534	0.0404	0.0000072
Fawnie Creek	FC-01	Surface	Primary	VA23B0364-004	5/10/2023	<0.000050	<0.010	0.0000107	4.93	<0.00050	<0.00010	0.00078	0.152	<0.000050	<0.0010	0.504	0.00384	0.0000065
Fawnie Creek	FC-01	Surface	Primary	VA23A9638-002	5/2/2023	<0.000050	<0.010	0.0000159	12	<0.00050	0.00017	0.00113	0.43	0.000165	<0.0010	1.28	0.0103	<0.0000050
Fawnie Creek	FC-01	Surface	Primary	VA23A8158-005	4/13/2023	<0.000050	<0.010	<0.0000050	13.8	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	1.56	0.00019	<0.0000050
Fawnie Creek	FC-01	Surface	Primary	VA23A6844-004	3/27/2023	<0.000050	<0.010	0.0000054	14	<0.00050	<0.00010	<0.00050	0.032	<0.000050	<0.0010	1.59	0.00065	<0.0000050
Fawnie Creek	FC-01	Surface	Primary	VA23A3268-006	2/9/2023	<0.000050	<0.010	<0.0000050	13.3	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	1.46	0.00014	<0.0000050
Fawnie Creek	FC-01	Surface	Duplicate	VA23A3268-007	2/9/2023	<0.000050	<0.010	<0.0000050	13.3	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	1.44	0.00011	<0.0000050
Fawnie Creek	FC-01	Surface	Primary	VA23A1264-001	1/17/2023	<0.000050	<0.010	0.0000057	13.2	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	1.51	0.00023	<0.0000050
Field Blank	-	-	-	VA23C9661-007	12/7/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Field Blank	-	-	-	VA23C6498-007	11/1/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Field Blank	-	-	-	VA23C5771-006	10/24/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Field Blank	-	-	-	VA23C5184-006	10/20/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Field Blank	-	-	-	VA23C4458-005	10/11/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Field Blank	-	-	-	VA23C3871-005	10/4/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*												
						Bismuth (Bi)-Total	Boron (B)-Total	Cadmium (Cd)-Total	Calcium (Ca)-Total	Chromium (Cr)-Total	Cobalt (Co)-Total	Copper (Cu)-Total	Iron (Fe)-Total	Lead (Pb)-Total	Lithium (Li)-Total	Magnesium (Mg)-Total	Manganese (Mn)-Total	Mercury (Hg)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Field Blank	-	-	-	VA23C1854-004	9/13/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Field Blank	-	-	-	VA23B8906-009	8/15/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Field Blank	-	-	-	VA23B7293-002	7/25/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Field Blank	-	-	-	VA23B4330-008	6/21/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Field Blank	-	-	-	VA23B2219-006	5/30/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Field Blank	-	-	-	VA23B1379-003	5/22/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Field Blank	-	-	-	VA23B1108-006	5/17/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Field Blank	-	-	-	VA23B0222-007	5/9/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Field Blank	-	-	-	VA23A9893-005	5/4/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Field Blank	-	-	-	VA23A7852-006	4/11/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Field Blank	-	-	-	VA23A6097-006	3/20/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Field Blank	-	-	-	VA23A3035-002	2/7/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Field Blank	-	-	-	VA23A1261-004	1/17/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Travel Blank	-	-	-	VA23D0165-001	12/14/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Travel Blank	-	-	-	VA23C7190-012	11/9/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Travel Blank	-	-	-	VA23C5894-006	10/25/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Travel Blank	-	-	-	VA23C5184-007	10/20/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Travel Blank	-	-	-	VA23C5293-008	10/19/2023	<0.000050	<0.010	0.0000316	3.45	<0.00050	0.00050	0.0477	0.291	0.00188	<0.0010	0.165	0.0715	<0.0000050
Travel Blank	-	-	-	VA23C4586-007	10/14/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Travel Blank	-	-	-	VA23C4014-012	10/6/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Travel Blank	-	-	-	VA23C2546-006	9/20/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Travel Blank	-	-	-	VA23C0762-005	8/31/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Travel Blank	-	-	-	VA23B7734-008	7/31/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Travel Blank	-	-	-	VA23B4330-009	6/21/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Travel Blank	-	-	-	VA23B2224-005	5/31/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Travel Blank	-	-	-	VA23B1690-012	5/24/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Travel Blank	-	-	-	VA23B1108-007	5/17/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Travel Blank	-	-	-	VA23A9893-006	5/4/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Travel Blank	-	-	-	VA23A9322-002	4/28/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Travel Blank	-	-	-	VA23A6844-009	3/28/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Travel Blank	-	-	-	VA23A4552-003	2/28/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050
Travel Blank	-	-	-	VA23A1890-005	1/25/2023	<0.000050	<0.010	<0.0000050	<0.050	<0.00050	<0.00010	<0.00050	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050

Notes:
"-" indicates parameter was not analyzed.
"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*												
						Molybdenum (Mo)-Total	Nickel (Ni)-Total	Phosphorus (P)-Total	Potassium (K)-Total	Selenium (Se)-Total	Silicon (Si)-Total	Silver (Ag)-Total	Sodium (Na)-Total	Strontium (Sr)-Total	Sulfur (S)-Total	Thallium (Tl)-Total	Tin (Sn)-Total	Titanium (Ti)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23C6622-009	11/2/2023	0.00057	<0.00050	<0.050	0.898	<0.000050	0.26	<0.000010	3.32	0.105	0.74	<0.000010	<0.00010	<0.00030
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23C6622-008	11/2/2023	0.000551	<0.00050	<0.050	0.866	<0.000050	0.28	<0.000010	3.2	0.105	0.68	<0.000010	<0.00010	0.00037
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23C6622-007	11/2/2023	0.000776	<0.00050	<0.050	0.89	<0.000050	0.23	<0.000010	3.31	0.105	0.58	<0.000010	<0.00010	<0.00030
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23C1854-001	9/13/2023	0.00057	<0.00050	<0.050	0.915	<0.000050	5.51	<0.000010	3.21	0.102	<0.50	<0.000010	0.0003	<0.00030
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23C1854-002	9/13/2023	0.000569	<0.00050	<0.050	0.895	<0.000050	5.64	<0.000010	3.14	0.1	<0.50	<0.000010	<0.00010	<0.00030
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23C1854-003	9/13/2023	0.00055	<0.00050	<0.050	0.884	<0.000050	5.85	<0.000010	3.02	0.0978	<0.50	<0.000010	<0.00010	<0.00030
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23B2052-008	5/29/2023	0.000504	<0.00050	<0.050	0.872	<0.000050	5.66	<0.000010	3.18	0.0946	0.64	<0.000010	<0.00010	<0.00030
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23B2052-007	5/29/2023	0.00049	<0.00050	<0.050	0.866	<0.000050	5.78	<0.000010	3.1	0.0951	0.67	<0.000010	<0.00010	<0.00030
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23B2052-006	5/29/2023	0.000458	<0.00050	0.096	0.92	0.000052	6.95	<0.000010	3.2	0.0985	0.51	<0.000010	<0.00010	<0.00030
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23A3692-003	2/15/2023	0.000612	<0.00050	<0.050	0.866	<0.000050	5.58	<0.000010	3.22	0.1	0.54	<0.000010	<0.00010	<0.00030
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23A3692-002	2/15/2023	0.000551	<0.00050	<0.050	0.835	<0.000050	5.88	<0.000010	3.18	0.1	<0.50	<0.000010	<0.00010	<0.00030
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23A3692-001	2/15/2023	0.000528	<0.00050	0.064	0.921	<0.000050	7.48	<0.000010	3.29	0.105	<0.50	<0.000010	<0.00010	<0.00030
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23C5293-003	10/19/2023	0.000614	<0.00050	<0.050	0.805	0.000062	3	<0.000010	3.59	0.102	1.16	<0.000010	<0.00010	<0.00030
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23C5293-002	10/19/2023	0.00062	<0.00050	<0.050	0.816	0.000067	3.23	<0.000010	3.61	0.101	1.2	<0.000010	<0.00010	<0.00030
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23C5293-001	10/19/2023	0.00057	<0.00050	0.054	0.826	0.000068	6.46	<0.000010	3.48	0.0981	1.14	<0.000010	<0.00010	<0.00030
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23C0266-003	8/28/2023	0.000587	<0.00050	<0.050	0.845	0.000075	2.51	<0.000010	3.56	0.0956	1.32	<0.000010	<0.00010	<0.00030
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23C0266-002	8/28/2023	0.00056	<0.00050	<0.050	0.857	0.000055	5.33	<0.000010	3.63	0.0972	1.28	<0.000010	<0.00010	<0.00030
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23C0266-001	8/28/2023	0.000572	<0.00050	0.066	0.854	0.000055	6.46	<0.000010	3.6	0.0977	1.17	<0.000010	<0.00010	<0.00030
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23B1690-011	5/24/2023	0.000519	<0.00050	<0.050	0.77	0.000064	4.17	<0.000010	3.13	0.0841	1.12	<0.000010	<0.00010	0.00042
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23B1690-010	5/24/2023	0.000498	<0.00050	<0.050	0.797	0.000059	4.38	<0.000010	3.23	0.0868	1.14	<0.000010	<0.00010	0.0006
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23B1690-009	5/24/2023	0.000547	<0.00050	<0.050	0.787	0.000062	5.06	<0.000010	3.29	0.0923	1.29	<0.000010	<0.00010	<0.00030
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23A3177-007	2/8/2023	0.000581	<0.00050	<0.050	0.788	0.000076	5.01	<0.000010	3.48	0.103	1.25	<0.000010	<0.00010	<0.00030
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23A3177-006	2/8/2023	0.000562	<0.00050	<0.050	0.755	<0.000050	4.79	<0.000010	3.28	0.0977	1.05	<0.000010	<0.00010	<0.00030
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23A3177-005	2/8/2023	0.000595	<0.00050	<0.050	0.792	0.000076	5.47	<0.000010	3.54	0.0998	1.25	<0.000010	<0.00010	0.00124
Davidson Creek	DC-05	Surface	Primary	VA23D0155-002	12/15/2023	0.000716	<0.00050	<0.050	0.619	0.00006	7.33	<0.000010	3.14	0.0814	1.08	<0.000010	<0.00010	0.00512
Davidson Creek	DC-05	Surface	Primary	VA23C7190-002	11/8/2023	0.000571	<0.00050	<0.050	0.732	0.00007	7.13	<0.000010	2.95	0.0672	1.35	<0.000010	<0.00010	0.0105
Davidson Creek	DC-05	Surface	Primary	VA23C6383-003	10/31/2023	0.000829	<0.00050	<0.050	0.616	0.00007	6.92	<0.000010	3.31	0.0887	1.28	<0.000010	<0.00010	0.00278
Davidson Creek	DC-05	Surface	Primary	VA23C5894-001	10/25/2023	0.000866	<0.00050	<0.050	0.638	0.000074	7.31	<0.000010	3.51	0.0895	1.25	<0.000010	<0.00010	0.00523
Davidson Creek	DC-05	Surface	Primary	VA23C4858-003	10/16/2023	0.000829	<0.00050	<0.050	0.618	0.000068	6.34	<0.000010	3.14	0.0867	1.14	<0.000010	<0.00010	0.00212
Davidson Creek	DC-05	Surface	Primary	VA23C4586-001	10/14/2023	0.000808	<0.00050	<0.050	0.634	0.000075	6.56	<0.000010	3.28	0.0861	0.54	<0.000010	<0.00010	0.00332
Davidson Creek	DC-05	Surface	Duplicate	VA23C4586-002	10/14/2023	0.000774	<0.00050	<0.050	0.608	0.00006	6.28	<0.000010	3.25	0.0846	<0.50	<0.000010	<0.00010	0.00245
Davidson Creek	DC-05	Surface	Primary	VA23C4014-002	10/5/2023	0.000738	<0.00050	<0.050	0.683	0.000063	6.71	<0.000010	2.8	0.0745	1.02	<0.000010	<0.00010	0.00874
Davidson Creek	DC-05	Surface	Primary	VA23C0875-003	9/4/2023	0.000723	<0.00050	<0.050	0.652	0.000062	6.31	<0.000010	3.25	0.0773	1.07	<0.000010	<0.00010	0.00077
Davidson Creek	DC-05	Surface	Primary	VA23B9219-002	8/16/2023	0.00272	<0.00050	<0.050	0.796	0.000067	6.42	<0.000010	3.07	0.0746	1.79	<0.000010	<0.00010	0.00142
Davidson Creek	DC-05	Surface	Primary	VA23B7293-008	7/25/2023	0.000385	<0.00050	<0.050	1.21	0.000062	6.36	<0.000010	3.17	0.078	5.01	<0.000010	<0.00010	0.00361
Davidson Creek	DC-05	Surface	Primary	VA23B4181-003	6/21/2023	0.000464	<0.00050	<0.050	0.359	0.000073	5.56	<0.000010	2.2	0.0474	<0.50	<0.000010	<0.00010	0.00143
Davidson Creek	DC-05	Surface	Primary	VA23B2052-005	5/29/2023	0.000364	<0.00050	<0.050	0.341	<0.000050	5.43	<0.000010	2.02	0.0373	<0.50	<0.000010	<0.00010	0.0019
Davidson Creek	DC-05	Surface	Primary	VA23B1529-005	5/23/2023	0.000271	<0.00050	<0.050	0.301	<0.000050	4.96	<0.000010	1.77	0.0301	<0.50	<0.000010	<0.00010	0.00234
Davidson Creek	DC-05	Surface	Primary	VA23B0766-010	5/16/2023	0.000184	<0.00050	<0.050	0.247	0.000052	4.13	0.00001	1.34	0.0241	<0.50	<0.000010	<0.00010	0.00416
Davidson Creek	DC-05	Surface	Primary	VA23B0222-006	5/9/2023	0.000194	<0.00050	<0.050	0.443	0.000064	4.67	0.00002	1.52	0.0287	<0.50	<0.000010	<0.00010	0.0101
Davidson Creek	DC-05	Surface	Primary	VA23A9893-002	5/4/2023	0.000229	0.00062	0.054	0.842	0.000056	5.96	0.00003	1.8	0.0375	<0.50	<0.000010	<0.00010	0.0188
Davidson Creek	DC-05	Surface	Primary	VA23A7852-002	4/11/2023	0.001	<0.00050	<0.050	0.51	0.000103	6.21	<0.000010	3.76	0.0974	1.04	<0.000010	<0.00010	<0.00030
Davidson Creek	DC-05	Surface	Primary	VA23A5627-002	3/14/2023	0.00105	<0.00050	0.054	0.508	0.000107	6.15	<0.000010	3.58	0.103	0.99	<0.000010	<0.00010	<0.00030
Davidson Creek	DC-05	Surface	Primary	VA23A2861-004	2/6/2023	0.000974	<0.00050	0.05	0.473	0.000069	6.57	<0.000010	3.4	0.0962	1.04	<0.000010	<0.00010	<0.00030
Davidson Creek	DC-05	Surface	Primary	VA23A1261-002	1/17/2023	0.000969	<0.00050	<0.050	0.492	0.000099	6.4	<0.000010	3.44	0.0955	0.93	<0.000010	<0.00010	<0.00030
Davidson Creek	DC-05	Surface	Duplicate	VA23A1261-005	1/17/2023	0.000988	<0.00050	<0.050	0.491	0.000081	6.38	<0.000010	3.41	0.0984	1.02	<0.000010	<0.00010	<0.00030

Notes:
"-" indicates parameter was not analyzed.
"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*												
						Molybdenum (Mo)-Total	Nickel (Ni)-Total	Phosphorus (P)-Total	Potassium (K)-Total	Selenium (Se)-Total	Silicon (Si)-Total	Silver (Ag)-Total	Sodium (Na)-Total	Strontium (Sr)-Total	Sulfur (S)-Total	Thallium (Tl)-Total	Tin (Sn)-Total	Titanium (Ti)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Davidson Creek	DC-10	Surface	Primary	VA23D0155-003	12/15/2023	0.00074	<0.00050	<0.050	0.619	0.000069	7.34	<0.000010	3.21	0.0834	1.16	<0.000010	<0.00010	0.00392
Davidson Creek	DC-10	Surface	Duplicate	VA23D0155-004	12/15/2023	0.000723	<0.00050	<0.050	0.622	0.000067	7.21	<0.000010	3.22	0.0836	1.06	<0.000010	<0.00010	0.00366
Davidson Creek	DC-10	Surface	Primary	VA23C7190-003	11/8/2023	0.000598	<0.00050	<0.050	0.698	0.000058	6.97	<0.000010	2.9	0.0682	1.23	<0.000010	<0.00010	0.013
Davidson Creek	DC-10	Surface	Primary	VA23C4014-003	10/5/2023	0.000792	<0.00050	<0.050	0.646	0.000061	6.28	<0.000010	2.85	0.0787	1	<0.000010	<0.00010	0.00338
Davidson Creek	DC-10	Surface	Primary	VA23C2388-003	9/19/2023	0.000791	<0.00050	<0.050	0.662	0.00007	6.04	<0.000010	3.21	0.086	1.2	<0.000010	<0.00010	0.00058
Davidson Creek	DC-10	Surface	Primary	VA23B9219-003	8/16/2023	0.00199	<0.00050	<0.050	0.789	0.000061	6.37	<0.000010	3.12	0.077	1.74	<0.000010	<0.00010	0.00145
Davidson Creek	DC-10	Surface	Primary	VA23B7293-007	7/25/2023	0.000404	<0.00050	<0.050	1.16	0.000065	6.28	<0.000010	3.2	0.0782	4.56	<0.000010	<0.00010	0.00405
Davidson Creek	DC-10	Surface	Primary	VA23B4181-004	6/21/2023	0.00048	<0.00050	<0.050	0.384	0.000062	5.62	<0.000010	2.3	0.0478	<0.50	<0.000010	<0.00010	0.00179
Davidson Creek	DC-10	Surface	Primary	VA23A9893-003	5/4/2023	0.000224	0.00062	0.058	0.813	0.000075	5.8	0.00003	1.81	0.0377	<0.50	<0.000010	<0.00010	0.0154
Davidson Creek	DC-10	Surface	Primary	VA23A7852-003	4/11/2023	0.00101	<0.00050	<0.050	0.512	0.000069	6.23	<0.000010	3.76	0.0988	1.2	<0.000010	<0.00010	0.00033
Davidson Creek	DC-10	Surface	Primary	VA23A5627-003	3/14/2023	0.00102	<0.00050	0.057	0.507	0.00007	6.11	<0.000010	3.61	0.0989	1.07	<0.000010	<0.00010	<0.00030
Davidson Creek	DC-10	Surface	Primary	VA23A2861-005	2/6/2023	0.000986	<0.00050	0.053	0.469	0.000059	6.37	<0.000010	3.36	0.0947	1.02	<0.000010	<0.00010	<0.00030
Davidson Creek	DC-10	Surface	Duplicate	VA23A2861-006	2/6/2023	0.000988	<0.00050	<0.050	0.466	0.000066	6.42	<0.000010	3.32	0.096	0.95	<0.000010	<0.00010	<0.00030
Davidson Creek	DC-10	Surface	Primary	VA23A1261-003	1/17/2023	0.000949	<0.00050	<0.050	0.491	0.000065	6.29	<0.000010	3.45	0.0949	0.73	<0.000010	<0.00010	0.00098
Davidson Creek	DC-15	Surface	Primary	VA23D0155-005	12/15/2023	0.00078	<0.00050	<0.050	0.604	0.00006	7.1	<0.000010	3.39	0.0934	0.97	<0.000010	<0.00010	0.00168
Davidson Creek	DC-15	Surface	Primary	VA23C7190-004	11/8/2023	0.000671	<0.00050	<0.050	0.601	<0.000050	6.41	<0.000010	3.16	0.0778	1.24	<0.000010	<0.00010	0.00447
Davidson Creek	DC-15	Surface	Primary	VA23C4279-006	10/10/2023	0.000868	<0.00050	<0.050	0.713	<0.000050	6.93	<0.000010	3.66	0.0983	1.11	<0.000010	<0.00010	0.00076
Davidson Creek	DC-15	Surface	Primary	VA23C2388-004	9/19/2023	0.000801	<0.00050	<0.050	0.695	<0.000050	6.21	<0.000010	3.42	0.0935	1.15	<0.000010	<0.00010	0.00034
Davidson Creek	DC-15	Surface	Primary	VA23B9219-004	8/16/2023	0.000727	<0.00050	<0.050	0.721	0.000067	6.64	<0.000010	3.24	0.084	1.7	<0.000010	<0.00010	0.00072
Davidson Creek	DC-15	Surface	Primary	VA23B7293-006	7/25/2023	0.00071	<0.00050	<0.050	0.836	0.000065	6.44	<0.000010	3.22	0.0741	3.6	<0.000010	<0.00010	0.00612
Davidson Creek	DC-15	Surface	Duplicate	VA23B7293-011	7/25/2023	0.000472	<0.00050	<0.050	0.841	0.000065	6.39	<0.000010	3.15	0.0745	3.6	<0.000010	<0.00010	0.00608
Davidson Creek	DC-15	Surface	Primary	VA23B4181-005	6/21/2023	0.00081	<0.00050	<0.050	0.446	0.000055	5.64	<0.000010	2.54	0.0562	<0.50	<0.000010	<0.00010	0.00101
Davidson Creek	DC-15	Surface	Primary	VA23A9893-004	5/4/2023	0.00029	0.00066	0.061	0.806	0.000081	5.81	0.000027	1.91	0.0423	<0.50	<0.000010	<0.00010	0.0159
Davidson Creek	DC-15	Surface	Primary	VA23A9076-001	4/25/2023	0.000796	<0.00050	<0.050	0.785	<0.000050	5.98	<0.000010	3.59	0.0967	0.96	<0.000010	<0.00010	<0.00030
Davidson Creek	DC-15	Surface	Primary	VA23A5821-002	3/15/2023	0.000984	<0.00050	0.05	0.575	0.000063	6.68	<0.000010	3.98	0.106	1.03	<0.000010	<0.00010	<0.00030
Davidson Creek	DC-15	Surface	Primary	VA23A2670-003	2/4/2023	0.000952	<0.00050	<0.050	0.581	0.00006	6.92	<0.000010	3.83	0.108	0.96	<0.000010	<0.00010	<0.00030
Davidson Creek	DC-15	Surface	Duplicate	VA23A2670-004	2/4/2023	0.000963	<0.00050	<0.050	0.544	0.000052	6.7	<0.000010	3.6	0.107	0.91	<0.000010	<0.00010	<0.00030
Davidson Creek	DC-15	Surface	Primary	VA23A1491-004	1/19/2023	0.00094	<0.00050	<0.050	0.543	0.000054	6.35	<0.000010	3.6	0.105	0.78	<0.000010	<0.00010	<0.00030
Davidson Creek	DC-20	Surface	Primary	VA23C9626-004	12/6/2023	0.000691	<0.00050	<0.050	0.569	<0.000050	6.76	<0.000010	3.23	0.0863	1.09	<0.000010	<0.00010	0.00369
Davidson Creek	DC-20	Surface	Primary	VA23C6498-006	11/1/2023	0.000755	<0.00050	<0.050	0.596	<0.000050	6.53	<0.000010	3.62	0.0955	1.04	<0.000010	<0.00010	0.00084
Davidson Creek	DC-20	Surface	Primary	VA23C5771-005	10/24/2023	0.000738	<0.00050	<0.050	0.588	0.000056	6.41	<0.000010	3.36	0.0864	0.96	<0.000010	<0.00010	0.00352
Davidson Creek	DC-20	Surface	Primary	VA23C5184-002	10/20/2023	0.000827	<0.00050	<0.050	0.71	<0.000050	6.51	<0.000010	3.88	0.101	0.91	<0.000010	<0.00010	0.00096
Davidson Creek	DC-20	Surface	Duplicate	VA23C5184-003	10/20/2023	0.00082	<0.00050	<0.050	0.698	<0.000050	6.58	<0.000010	3.81	0.0995	0.99	<0.000010	<0.00010	0.00063
Davidson Creek	DC-20	Surface	Primary	VA23C4458-004	10/11/2023	0.000774	<0.00050	<0.050	0.715	0.000051	6.62	<0.000010	3.7	0.0962	1	<0.000010	<0.00010	0.00071
Davidson Creek	DC-20	Surface	Primary	VA23C3871-006	10/4/2023	0.000819	<0.00050	<0.050	0.717	<0.000050	6.64	<0.000010	3.77	0.0936	1.12	<0.000010	<0.00010	0.0005
Davidson Creek	DC-20	Surface	Primary	VA23C2546-001	9/20/2023	0.000823	<0.00050	<0.050	0.685	<0.000050	6.14	<0.000010	3.43	0.0943	0.61	<0.000010	<0.00010	0.00091
Davidson Creek	DC-20	Surface	Duplicate	VA23C2546-002	9/20/2023	0.000814	<0.00050	<0.050	0.686	<0.000050	6.29	<0.000010	3.48	0.0933	0.53	<0.000010	<0.00010	0.00093
Davidson Creek	DC-20	Surface	Primary	VA23B9723-001	8/22/2023	0.000737	<0.00050	<0.050	0.691	0.000063	6.46	<0.000010	3.34	0.0866	1.39	<0.000010	<0.00010	0.0011
Davidson Creek	DC-20	Surface	Primary	VA23B7734-005	7/31/2023	0.000773	<0.00050	<0.050	0.741	0.000066	6.38	<0.000010	3.14	0.0796	2.35	<0.000010	<0.00010	0.00197
Davidson Creek	DC-20	Surface	Primary	VA23B2847-003	6/6/2023	0.000531	0.0045	<0.050	0.449	<0.000050	6.31	<0.000010	2.66	0.0574	<0.50	<0.000010	<0.00010	0.00126
Davidson Creek	DC-20	Surface	Primary	VA23B2219-004	5/30/2023	0.000741	<0.00050	<0.050	0.463	0.000054	5.95	<0.000010	2.41	0.0489	0.5	<0.000010	<0.00010	0.00195
Davidson Creek	DC-20	Surface	Primary	VA23B1690-002	5/24/2023	0.000357	<0.00050	<0.050	0.397	0.000052	5.35	<0.000010	1.98	0.04	<0.50	<0.000010	<0.00010	0.00351
Davidson Creek	DC-20	Surface	Primary	VA23B1108-005	5/17/2023	0.000278	<0.00050	<0.050	0.357	0.000076	5.01	<0.000010	1.67	0.0318	<0.50	<0.000010	<0.00010	0.00823
Davidson Creek	DC-20	Surface	Primary	VA23B0508-005	5/11/2023	0.000274	0.00053	<0.050	0.475	0.00006	4.91	0.000014	1.72	0.036	<0.50	<0.000010	<0.00010	0.0122
Davidson Creek	DC-20	Surface	Primary	VA23A9782-004	5/3/2023	0.000361	0.00095	<0.050	0.905	0.000081	5.77	0.000025	2.25	0.0484	<0.50	<0.000010	<0.00010	0.0213
Davidson Creek	DC-20	Surface	Primary	VA23A9207-003	4/26/2023	0.000692	<0.00050	<0.050	0.914	0.000065	6.02	<0.000010	3.3	0.0914	0.72	<0.000010	<0.00010	0.00964

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*												
						Molybdenum (Mo)-Total	Nickel (Ni)-Total	Phosphorus (P)-Total	Potassium (K)-Total	Selenium (Se)-Total	Silicon (Si)-Total	Silver (Ag)-Total	Sodium (Na)-Total	Strontium (Sr)-Total	Sulfur (S)-Total	Thallium (Tl)-Total	Tin (Sn)-Total	Titanium (Ti)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Davidson Creek	DC-20	Surface	Primary	VA23A6097-005	3/20/2023	0.000917	<0.00050	<0.050	0.593	0.000086	6.49	<0.000010	3.8	0.109	1.25	<0.000010	<0.00010	0.00037
Davidson Creek	DC-20	Surface	Primary	VA23A3560-002	2/14/2023	0.000902	<0.00050	<0.050	0.59	0.000055	6.89	<0.000010	3.76	0.103	1.15	<0.000010	<0.00010	0.00311
Davidson Creek	DC-20	Surface	Primary	VA23A1889-001	1/24/2023	0.000929	<0.00050	<0.050	0.736	0.00008	6.94	<0.000010	3.84	0.11	1.01	<0.000010	<0.00010	0.00471
Turtle Creek	TC-01	Surface	Primary	VA23D0165-002	12/14/2023	0.000412	<0.00050	<0.050	0.695	0.000073	7.21	<0.000010	3.16	0.128	<0.50	<0.000010	<0.00010	0.00044
Turtle Creek	TC-01	Surface	Primary	VA23C6880-003	11/6/2023	0.000782	<0.00050	<0.050	0.682	0.000068	6.74	<0.000010	2.62	0.121	0.86	<0.000010	<0.00010	<0.00030
Turtle Creek	TC-01	Surface	Primary	VA23C4014-009	10/6/2023	0.000453	<0.00050	<0.050	0.692	0.000067	7.02	<0.000010	2.59	0.106	0.54	<0.000010	<0.00010	<0.00030
Turtle Creek	TC-01	Surface	Primary	VA23C1674-003	9/12/2023	0.000506	<0.00050	<0.050	0.717	0.000069	7.47	<0.000010	2.94	0.116	0.5	<0.000010	<0.00010	<0.00030
Turtle Creek	TC-01	Surface	Primary	VA23B8906-007	8/15/2023	0.000528	<0.00050	<0.050	0.641	0.000127	7.18	<0.000010	2.76	0.119	0.56	<0.000010	<0.00010	<0.00030
Turtle Creek	TC-01	Surface	Primary	VA23B7523-005	7/27/2023	0.000518	<0.00050	<0.050	0.628	0.000081	6.32	<0.000010	2.79	0.126	0.69	<0.000010	<0.00010	<0.00030
Turtle Creek	TC-01	Surface	Primary	VA23B4330-002	6/21/2023	0.000602	<0.00050	<0.050	0.634	0.000074	4.69	<0.000010	2.73	0.113	0.64	<0.000010	<0.00010	<0.00030
Turtle Creek	TC-01	Surface	Duplicate	VA23B4330-007	6/21/2023	0.000572	<0.00050	<0.050	0.659	0.000068	4.92	<0.000010	2.76	0.114	0.6	<0.000010	<0.00010	0.00033
Turtle Creek	TC-01	Surface	Primary	VA23A9638-003	5/2/2023	0.000443	<0.00050	<0.050	0.671	0.000082	6.24	<0.000010	2.51	0.108	0.77	<0.000010	<0.00010	<0.00030
Turtle Creek	TC-01	Surface	Primary	VA23A8158-004	4/13/2023	0.000406	<0.00050	<0.050	0.719	0.000056	5.96	<0.000010	2.74	0.107	0.65	<0.000010	<0.00010	0.0004
Turtle Creek	TC-01	Surface	Primary	VA23A5821-003	3/15/2023	0.000433	<0.00050	<0.050	0.639	0.00007	6.59	<0.000010	2.74	0.11	<0.50	<0.000010	<0.00010	<0.00030
Turtle Creek	TC-01	Surface	Primary	VA23A3268-003	2/10/2023	0.000526	<0.00050	0.082	0.627	0.00037	7.16	<0.000010	2.65	0.129	0.86	<0.000010	<0.00010	0.0043
Turtle Creek	TC-01	Surface	Primary	VA23A1491-001	1/19/2023	0.000571	<0.00050	<0.050	0.656	0.000149	6.64	<0.000010	2.77	0.129	0.63	<0.000010	<0.00010	0.00234
Turtle Creek	TC-05	Surface	Primary	VA23D0165-003	12/14/2023	0.000789	<0.00050	<0.050	0.956	0.000084	8.16	<0.000010	4.65	0.147	1.74	<0.000010	<0.00010	0.00039
Turtle Creek	TC-05	Surface	Primary	VA23C6880-004	11/6/2023	0.000649	<0.00050	<0.050	1.32	0.000076	7.12	<0.000010	3.87	0.137	1.49	<0.000010	<0.00010	0.0004
Turtle Creek	TC-05	Surface	Primary	VA23C4458-006	10/11/2023	0.000724	<0.00050	<0.050	1.01	0.000075	7.03	<0.000010	4.24	0.14	1.22	<0.000010	<0.00010	0.00138
Turtle Creek	TC-05	Surface	Primary	VA23C1674-004	9/12/2023	0.000756	<0.00050	<0.050	0.777	0.0001	6.64	<0.000010	4.11	0.135	1.11	<0.000010	<0.00010	0.00059
Turtle Creek	TC-05	Surface	Duplicate	VA23C1674-006	9/12/2023	0.000767	<0.00050	<0.050	0.762	0.00008	6.57	<0.000010	4.12	0.138	1.01	<0.000010	<0.00010	0.00051
Turtle Creek	TC-05	Surface	Primary	VA23B8906-008	8/15/2023	0.000789	<0.00050	<0.050	0.741	0.00009	6.26	<0.000010	3.83	0.132	0.86	<0.000010	<0.00010	0.00088
Turtle Creek	TC-05	Surface	Primary	VA23B4330-003	6/21/2023	0.000704	<0.00050	<0.050	0.691	0.000086	5.21	<0.000010	3.49	0.119	0.88	<0.000010	<0.00010	<0.00060
Turtle Creek	TC-05	Surface	Primary	VA23B0364-005	5/10/2023	0.000289	0.00061	0.05	0.684	0.000102	5.3	0.000012	1.96	0.0469	<0.50	<0.000010	<0.00010	0.0131
Turtle Creek	TC-05	Surface	Primary	VA23A7852-004	4/11/2023	0.000805	<0.00050	<0.050	1.31	0.000088	6.81	<0.000010	4.03	0.125	1.53	<0.000010	<0.00010	0.00049
Turtle Creek	TC-05	Surface	Primary	VA23A5821-004	3/15/2023	0.00087	<0.00050	<0.050	0.93	0.000113	7.47	<0.000010	4.04	0.132	1.5	<0.000010	<0.00010	<0.00060
Turtle Creek	TC-05	Surface	Primary	VA23A3268-002	2/10/2023	0.000781	<0.00050	<0.050	0.923	0.000092	7.38	<0.000010	3.77	0.135	1.54	<0.000010	<0.00010	<0.00030
Turtle Creek	TC-05	Surface	Primary	VA23A1491-002	1/19/2023	0.000829	<0.00050	<0.050	0.907	0.000098	7.26	<0.000010	3.81	0.135	1.55	<0.000010	<0.00010	0.00036
Turtle Creek	TC-10	Surface	Primary	VA23D0165-004	12/14/2023	0.000688	<0.00050	<0.050	1.01	<0.000050	7.77	<0.000010	5.32	0.163	1.63	<0.000010	<0.00010	0.00037
Turtle Creek	TC-10	Surface	Duplicate	VA23D0165-005	12/14/2023	0.000699	<0.00050	<0.050	1.01	<0.000050	8.06	<0.000010	5.43	0.163	1.69	<0.000010	<0.00010	0.00039
Turtle Creek	TC-10	Surface	Primary	VA23C6880-005	11/6/2023	0.000683	<0.00050	<0.050	1.52	0.000055	7.19	<0.000010	4.41	0.152	1.49	<0.000010	<0.00010	<0.00030
Turtle Creek	TC-10	Surface	Primary	VA23C4014-010	10/6/2023	0.00073	<0.00050	<0.050	1.11	0.000051	7.1	<0.000010	4.23	0.144	0.84	<0.000010	<0.00010	0.00034
Turtle Creek	TC-10	Surface	Primary	VA23C1674-005	9/12/2023	0.000772	<0.00050	<0.050	0.91	0.000061	7.24	<0.000010	4.94	0.165	0.53	<0.000010	<0.00010	0.00057
Turtle Creek	TC-10	Surface	Primary	VA23C0266-005	8/28/2023	0.000746	<0.00050	<0.050	0.932	0.000066	7.22	<0.000010	4.87	0.153	<0.50	<0.000010	<0.00010	0.00035
Turtle Creek	TC-10	Surface	Primary	VA23B7293-012	7/25/2023	0.000686	<0.00050	<0.050	0.928	0.000052	6.69	<0.000010	4.53	0.153	0.6	<0.000010	<0.00010	0.00036
Turtle Creek	TC-10	Surface	Primary	VA23B4330-004	6/21/2023	0.000837	<0.00050	<0.050	0.774	0.000066	5.98	<0.000010	4.08	0.132	0.76	<0.000010	<0.00010	<0.00060
Turtle Creek	TC-10	Surface	Primary	VA23A9638-004	5/2/2023	0.000431	<0.00050	<0.050	1.51	0.000108	5.44	0.000011	2.34	0.0724	0.82	<0.000010	<0.00010	<0.0111
Turtle Creek	TC-10	Surface	Primary	VA23A7852-005	4/11/2023	0.000787	<0.00050	<0.050	1.78	0.000072	6.76	<0.000010	4.36	0.138	1.58	<0.000010	<0.00010	0.00033
Turtle Creek	TC-10	Surface	Primary	VA23A5627-004	3/14/2023	0.000842	<0.00050	<0.050	1.07	0.000058	7.24	<0.000010	4.54	0.15	1.38	<0.000010	<0.00010	<0.00030
Turtle Creek	TC-10	Surface	Primary	VA23A3268-001	2/10/2023	0.000765	<0.00050	<0.050	1.04	0.000082	7.49	<0.000010	4.21	0.15	1.37	<0.000010	<0.00010	<0.00030
Turtle Creek	TC-10	Surface	Primary	VA23A1111-001	1/16/2023	0.000756	<0.00050	<0.050	1.07	<0.000050	7.48	<0.000010	4.42	0.146	1.22	<0.000010	<0.00010	<0.00030
Turtle Creek	TC-15	Surface	Primary	VA23C6880-006	11/6/2023	0.000422	<0.00050	<0.050	1.29	<0.000050	6.38	<0.000010	4.6	0.134	1.22	<0.000010	<0.00010	0.00046
Turtle Creek	TC-15	Surface	Primary	VA23C4014-011	10/6/2023	0.000546	<0.00050	<0.050	1.21	0.000058	7.19	<0.000010	4.54	0.133	<0.50	<0.000010	<0.00010	<0.00030
Turtle Creek	TC-15	Surface	Primary	VA23C0266-004	8/28/2023	0.000722	<0.00050	<0.050	1.04	0.000072	7.48	<0.000010	5.25	0.156	<0.50	<0.000010	<0.00010	<0.00030
Turtle Creek	TC-15	Surface	Primary	VA23B7523-006	7/27/2023	0.000695	<0.00050	<0.050	0.729	<0.000050	7.14	<0.000010	4.65	0.149	<0.50	<0.000010	<0.00010	0.00076
Turtle Creek	TC-15	Surface	Primary	VA23B4330-005	6/21/2023	0.000576	<0.00050	<0.050	0.536	0.000078	6.31	<0.000010	4.06	0.125	<0.50	<0.000010	<0.00010	0.0018

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*												
						Molybdenum (Mo)-Total	Nickel (Ni)-Total	Phosphorus (P)-Total	Potassium (K)-Total	Selenium (Se)-Total	Silicon (Si)-Total	Silver (Ag)-Total	Sodium (Na)-Total	Strontium (Sr)-Total	Sulfur (S)-Total	Thallium (Tl)-Total	Tin (Sn)-Total	Titanium (Ti)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Turtle Creek	TC-15	Surface	Primary	VA23A9638-005	5/2/2023	0.000539	<0.00050	<0.050	1.87	<0.000050	4.95	<0.000010	2.65	0.084	0.84	<0.000010	<0.00010	0.00135
Turtle Creek	TC-15	Surface	Primary	VA23A9207-004	4/26/2023	0.000614	<0.00050	<0.050	1.7	0.000057	5.4	<0.000010	3.16	0.105	0.85	<0.000010	<0.00010	0.00317
Creek 661	661-01	Surface	Primary	VA23C9661-001	12/7/2023	0.000228	<0.00050	<0.050	0.27	<0.000050	5.45	<0.000010	2.24	0.0347	<0.50	<0.000010	<0.00010	0.00052
Creek 661	661-01	Surface	Duplicate	VA23C9661-002	12/7/2023	0.000226	<0.00050	<0.050	0.263	<0.000050	5.37	<0.000010	2.24	0.0346	<0.50	<0.000010	<0.00010	0.00047
Creek 661	661-01	Surface	Primary	VA23C7190-008	11/9/2023	0.000205	<0.00050	<0.050	0.29	<0.000050	5.41	<0.000010	2.21	0.0326	<0.50	<0.000010	<0.00010	0.00037
Creek 661	661-01	Surface	Primary	VA23C6383-001	10/31/2023	0.000145	<0.00050	<0.050	0.257	<0.000050	5.67	<0.000010	2.19	0.037	<0.50	<0.000010	<0.00010	0.00048
Creek 661	661-01	Surface	Primary	VA23C5894-003	10/25/2023	0.000167	<0.00050	<0.050	0.276	<0.000050	5.94	<0.000010	2.38	0.043	<0.50	<0.000010	<0.00010	0.00058
Creek 661	661-01	Surface	Primary	VA23C4858-001	10/16/2023	0.000295	<0.00050	<0.050	0.299	<0.000050	5.3	<0.000010	2.31	0.0342	<0.50	<0.000010	<0.00010	<0.00060
Creek 661	661-01	Surface	Primary	VA23C4586-003	10/14/2023	0.000217	<0.00050	<0.050	0.277	<0.000050	5.17	<0.000010	2.2	0.0346	<0.50	<0.000010	<0.00010	0.00055
Creek 661	661-01	Surface	Primary	VA23C4014-004	10/5/2023	0.000254	<0.00050	<0.050	0.328	<0.000050	5.39	<0.000010	2.12	0.0356	<0.50	<0.000010	<0.00010	0.00037
Creek 661	661-01	Surface	Primary	VA23C0875-002	9/4/2023	0.000225	<0.00050	<0.050	0.276	<0.000050	5.12	<0.000010	2.26	0.0319	<0.50	<0.000010	<0.00010	0.00039
Creek 661	661-01	Surface	Primary	VA23B8906-006	8/15/2023	0.000257	<0.00050	<0.050	0.267	<0.000050	4.57	<0.000010	2.11	0.0348	<0.50	<0.000010	<0.00010	0.00037
Creek 661	661-01	Surface	Primary	VA23B7523-004	7/27/2023	0.000205	<0.00050	<0.050	0.243	<0.000050	3.64	<0.000010	1.83	0.0285	<0.50	<0.000010	<0.00010	0.00064
Creek 661	661-01	Surface	Primary	VA23B3687-001	6/14/2023	0.000177	<0.00050	<0.050	0.178	<0.000050	3.78	<0.000010	1.75	0.0235	<0.50	<0.000010	<0.00010	0.00047
Creek 661	661-01	Surface	Primary	VA23B2847-004	6/6/2023	0.000147	<0.00050	<0.050	0.166	<0.000050	3.39	<0.000010	1.61	0.0203	<0.50	<0.000010	<0.00010	0.00055
Creek 661	661-01	Surface	Primary	VA23B2224-001	5/31/2023	0.000592	<0.00050	<0.050	0.203	<0.000050	3.67	<0.000010	1.6	0.0196	<0.50	<0.000010	<0.00010	0.00089
Creek 661	661-01	Surface	Primary	VA23B1379-001	5/22/2023	0.000117	<0.00050	<0.050	0.185	0.000052	3.38	<0.000010	1.43	0.0173	<0.50	<0.000010	<0.00010	0.00106
Creek 661	661-01	Surface	Duplicate	VA23B1379-002	5/22/2023	0.000108	<0.00050	<0.050	0.191	0.000054	3.48	<0.000010	1.4	0.0179	<0.50	<0.000010	<0.00010	0.00105
Creek 661	661-01	Surface	Primary	VA23B0766-007	5/16/2023	0.000103	<0.00050	<0.050	0.176	<0.000050	3.33	<0.000010	1.27	0.0159	<0.50	<0.000010	<0.00010	0.00156
Creek 661	661-01	Surface	Primary	VA23A8158-006	4/14/2023	0.000154	<0.00050	<0.050	0.192	<0.000050	4.66	<0.000010	1.99	0.0243	<0.50	<0.000010	<0.00010	0.00065
Creek 661	661-01	Surface	Primary	VA23A6844-007	3/28/2023	0.000145	<0.00050	<0.050	0.208	<0.000050	4.72	<0.000010	1.98	0.0247	<0.50	<0.000010	<0.00010	0.00109
Creek 661	661-01	Surface	Primary	VA23A4552-001	2/28/2023	0.000124	<0.00050	<0.050	0.194	<0.000050	4.81	<0.000010	1.93	0.0227	<0.50	<0.000010	<0.00010	0.00069
Creek 661	661-01	Surface	Primary	VA23A1264-005	1/17/2023	0.000102	<0.00050	<0.050	0.161	<0.000050	4.93	<0.000010	1.67	0.0202	<0.50	<0.000010	<0.00010	0.001
Creek 661	661-04	Surface	Primary	VA23C9661-003	12/7/2023	0.000587	<0.00050	<0.050	0.543	0.00006	8.15	<0.000010	3.54	0.0662	1.07	<0.000010	<0.00010	<0.00060
Creek 661	661-04	Surface	Primary	VA23C7190-009	11/9/2023	0.000551	<0.00050	<0.050	0.567	<0.000050	7.59	<0.000010	3.32	0.0609	1.66	<0.000010	<0.00010	0.00059
Creek 661	661-04	Surface	Primary	VA23C6383-002	10/31/2023	0.000598	<0.00050	<0.050	0.536	<0.000050	8.21	<0.000010	3.41	0.0637	0.91	<0.000010	<0.00010	<0.00090
Creek 661	661-04	Surface	Primary	VA23C5894-002	10/25/2023	0.00062	<0.00050	<0.050	0.552	<0.000050	8.03	<0.000010	3.63	0.0668	1.12	<0.000010	<0.00010	0.00069
Creek 661	661-04	Surface	Primary	VA23C4858-002	10/16/2023	0.000669	<0.00050	<0.050	0.66	<0.000050	7.64	<0.000010	3.51	0.0667	0.7	<0.000010	<0.00010	0.00044
Creek 661	661-04	Surface	Primary	VA23C4586-004	10/14/2023	0.000607	<0.00050	<0.050	0.64	<0.000050	7.66	<0.000010	3.5	0.0672	<0.50	<0.000010	<0.00010	0.00041
Creek 661	661-04	Surface	Primary	VA23C4014-005	10/5/2023	0.00064	<0.00050	<0.050	0.708	<0.000050	7.7	<0.000010	3.21	0.0646	0.75	<0.000010	<0.00010	0.0005
Creek 661	661-04	Surface	Primary	VA23C1991-004	9/14/2023	0.000711	<0.00050	<0.050	0.59	0.000054	7.33	<0.000010	3.5	0.0684	<0.50	<0.000010	<0.00010	0.00048
Creek 661	661-04	Surface	Primary	VA23B8906-005	8/14/2023	0.000756	<0.00050	<0.050	0.615	<0.000050	7.46	<0.000010	3.56	0.0654	1.03	<0.000010	<0.00010	0.0006
Creek 661	661-04	Surface	Primary	VA23B3687-002	6/14/2023	0.000481	<0.00050	<0.050	0.485	<0.000050	7.1	<0.000010	2.65	0.0479	0.62	<0.000010	<0.00010	0.00088
Creek 661	661-04	Surface	Duplicate	VA23B3687-003	6/14/2023	0.00045	<0.00050	<0.050	0.492	<0.000050	7.11	<0.000010	2.64	0.0473	0.67	<0.000010	<0.00010	0.00074
Creek 661	661-04	Surface	Primary	VA23B2847-005	6/6/2023	0.000372	<0.00050	<0.050	0.445	<0.000050	6.93	<0.000010	2.54	0.0406	0.79	<0.000010	<0.00010	0.00095
Creek 661	661-04	Surface	Primary	VA23B2224-002	5/31/2023	0.000344	<0.00050	<0.050	0.482	<0.000050	6.17	<0.000010	2.4	0.0379	0.7	<0.000010	<0.00010	0.00117
Creek 661	661-04	Surface	Primary	VA23B1379-004	5/22/2023	0.000233	<0.00050	<0.050	0.485	<0.000050	5.31	<0.000010	1.91	0.0325	0.97	<0.000010	<0.00010	0.00221
Creek 661	661-04	Surface	Primary	VA23B0766-008	5/16/2023	0.000158	<0.00050	<0.050	0.43	0.00005	4.2	0.000022	1.68	0.0266	0.9	<0.000010	<0.00010	0.00288
Creek 661	661-04	Surface	Primary	VA23A8158-007	4/14/2023	0.00066	<0.00050	<0.050	0.547	<0.000050	7.61	<0.000010	3.51	0.0613	1.3	<0.000010	<0.00010	0.00035
Creek 661	661-04	Surface	Primary	VA23A6844-008	3/28/2023	0.000674	<0.00050	<0.050	0.54	<0.000050	7.66	<0.000010	3.3	0.0633	0.96	<0.000010	<0.00010	0.00034
Creek 661	661-04	Surface	Primary	VA23A3268-009	2/9/2023	0.000638	<0.00050	<0.050	0.47	<0.000050	7.6	<0.000010	3.22	0.0613	0.88	<0.000010	<0.00010	0.00041
Creek 661	661-04	Surface	Primary	VA23A1264-004	1/17/2023	0.000646	<0.00050	<0.050	0.504	<0.000050	7.79	<0.000010	3.29	0.0611	0.68	<0.000010	<0.00010	0.00183
Creek 661	661-05	Surface	Primary	VA23C9238-004	12/4/2023	0.000932	<0.00050	0.07	0.633	0.000089	9.66	<0.000010	3.76	0.0864	<0.50	<0.000010	<0.00010	0.0124
Creek 661	661-05	Surface	Primary	VA23C7190-005	11/8/2023	0.000818	0.0021	0.088	1.37	0.000077	15.1	0.000026	3.95	0.0851	<0.50	0.000042	<0.00010	0.0749
Creek 661	661-05	Surface	Duplicate	VA23C7190-006	11/8/2023	0.0008	0.00203	0.093	1.19	0.000064	14	0.000025	3.65	0.0836	0.52	0.000034	<0.00010	0.0592
Creek 661	661-05	Surface	Primary	VA23C4865-004	10/16/2023	0.00085	<0.00050	0.051	0.68	0.000082	8.89	<0.000010	4.01	0.0893	<0.50	<0.000010	<0.00010	0.00076

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*												
						Molybdenum (Mo)-Total	Nickel (Ni)-Total	Phosphorus (P)-Total	Potassium (K)-Total	Selenium (Se)-Total	Silicon (Si)-Total	Silver (Ag)-Total	Sodium (Na)-Total	Strontium (Sr)-Total	Sulfur (S)-Total	Thallium (Tl)-Total	Tin (Sn)-Total	Titanium (Ti)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Creek 661	661-05	Surface	Primary	VA23C1491-002	9/11/2023	0.000914	<0.00050	0.065	0.574	0.000072	9.03	<0.000010	3.98	0.0895	<0.50	<0.000010	<0.00010	0.0009
Creek 661	661-05	Surface	Primary	VA23B9219-005	8/16/2023	0.000899	<0.00050	0.077	0.559	0.000056	8.35	<0.000010	4	0.0888	<0.50	<0.000010	<0.00010	0.00172
Creek 661	661-05	Surface	Primary	VA23B7293-010	7/25/2023	0.00069	<0.00050	0.05	0.51	<0.000050	7.44	<0.000010	3.27	0.0697	<0.50	<0.000010	<0.00010	0.0016
Creek 661	661-05	Surface	Primary	VA23B4181-001	6/21/2023	0.000622	<0.00050	<0.050	0.446	0.000079	7.26	<0.000010	3.05	0.0617	<0.50	<0.000010	<0.00010	0.00253
Creek 661	661-05	Surface	Primary	VA23B0766-005	5/15/2023	0.000356	<0.00050	<0.050	0.421	0.000054	5.92	<0.000010	2.3	0.0436	<0.50	<0.000010	<0.00010	0.00445
Creek 661	661-05	Surface	Primary	VA23A9322-001	4/27/2023	0.00069	<0.00050	0.075	0.638	0.000096	7.92	<0.000010	3.44	0.0718	0.51	<0.000010	<0.00010	0.00394
Creek 661	661-05	Surface	Primary	VA23A5821-001	3/15/2023	0.00085	<0.00050	0.091	0.541	0.000076	8.56	<0.000010	3.76	0.0788	<0.50	<0.000010	<0.00010	0.00092
Creek 661	661-05	Surface	Primary	VA23A2670-001	2/4/2023	0.000908	<0.00050	0.072	0.546	0.000081	8.84	<0.000010	3.67	0.0844	<0.50	<0.000010	<0.00010	0.00088
Creek 661	661-05	Surface	Primary	VA23A1491-003	1/19/2023	0.000911	<0.00050	0.061	0.541	0.000078	8.65	<0.000010	3.71	0.084	<0.50	<0.000010	<0.00010	0.00079
Creek 661	661-03	Surface	Primary	VA23C9238-001	12/4/2023	0.000224	<0.00050	<0.050	0.308	<0.000050	7.49	<0.000010	3.26	0.0611	<0.50	<0.000010	<0.00010	0.00093
Creek 661	661-03	Surface	Primary	VA23C6622-002	11/2/2023	0.000402	<0.00050	<0.050	0.49	<0.000050	8.41	<0.000010	3.71	0.0775	<0.50	<0.000010	<0.00010	0.00065
Creek 661	661-03	Surface	Primary	VA23C5577-001	10/23/2023	0.00026	<0.00050	<0.050	0.398	<0.000050	7.96	<0.000010	3.74	0.0694	<0.50	<0.000010	<0.00010	<0.00060
Creek 661	661-03	Surface	Primary	VA23C4865-003	10/16/2023	0.000339	<0.00050	<0.050	0.731	<0.000050	9.25	<0.000010	4.49	0.0947	<0.50	<0.000010	<0.00010	<0.00030
Creek 661	661-03	Surface	Primary	VA23C4279-004	10/10/2023	0.000363	<0.00050	<0.050	0.708	<0.000050	9.63	<0.000010	4.38	0.0958	<0.50	<0.000010	<0.00010	0.00061
Creek 661	661-03	Surface	Duplicate	VA23C4279-005	10/10/2023	0.000362	<0.00050	<0.050	0.765	<0.000050	9.75	<0.000010	4.49	0.0973	<0.50	<0.000010	<0.00010	0.00072
Creek 661	661-03	Surface	Primary	VA23C3847-004	10/3/2023	0.000359	<0.00050	<0.050	0.771	<0.000050	9.39	<0.000010	4.62	0.102	<0.50	<0.000010	<0.00010	0.00035
Creek 661	661-03	Surface	Primary	VA23C1491-001	9/11/2023	0.00103	<0.00050	<0.050	0.626	<0.000050	9.42	<0.000010	4.4	0.0963	<0.50	<0.000010	<0.00010	0.00097
Creek 661	661-03	Surface	Primary	VA23B9359-002	8/17/2023	0.000288	<0.00050	<0.050	0.431	<0.000050	8.09	<0.000010	3.9	0.0783	<0.50	<0.000010	<0.00010	0.00047
Creek 661	661-03	Surface	Primary	VA23B7293-003	7/25/2023	0.000215	<0.00050	<0.050	0.346	<0.000050	7.66	<0.000010	3.44	0.066	<0.50	<0.000010	<0.00010	0.00081
Creek 661	661-03	Surface	Primary	VA23B3987-002	6/19/2023	0.000224	<0.00050	<0.050	0.376	<0.000050	7.08	<0.000010	3.17	0.0638	<0.50	<0.000010	<0.00010	0.00226
Creek 661	661-03	Surface	Primary	VA23B2052-002	5/29/2023	0.000176	<0.00050	<0.050	0.335	0.000061	6.54	<0.000010	2.86	0.0462	<0.50	<0.000010	<0.00010	0.00097
Creek 661	661-03	Surface	Primary	VA23B1529-001	5/23/2023	0.000192	<0.00050	<0.050	0.331	<0.000050	6.28	<0.000010	2.79	0.043	<0.50	<0.000010	<0.00010	0.00089
Creek 661	661-03	Surface	Primary	VA23B0766-004	5/15/2023	0.00019	<0.00050	<0.050	0.383	0.000093	5.48	<0.000010	2.54	0.0398	<0.50	<0.000010	<0.00010	0.00169
Creek 661	661-03	Surface	Primary	VA23B0222-001	5/9/2023	0.00015	<0.00050	<0.050	0.491	0.00009	5.31	0.000012	2.38	0.0339	<0.50	<0.000010	<0.00010	0.00342
Creek 661	661-03	Surface	Duplicate	VA23B0222-002	5/9/2023	0.000156	<0.00050	<0.050	0.506	<0.000050	5.28	0.00001	2.28	0.0335	<0.50	<0.000010	<0.00010	0.00324
Creek 661	661-03	Surface	Primary	VA23A9531-006	5/1/2023	0.000179	<0.00050	0.054	0.726	0.000065	5.62	0.000013	2.35	0.0377	<0.50	<0.000010	<0.00010	0.0049
Creek 661	661-03	Surface	Primary	VA23A8011-002	4/12/2023	0.000161	<0.00050	<0.050	0.346	<0.000050	7.12	<0.000010	3.31	0.055	<0.50	<0.000010	<0.00010	0.00136
Creek 661	661-03	Surface	Primary	VA23A5501-001	3/13/2023	0.000189	<0.00050	<0.050	0.381	0.000073	7.93	<0.000010	3.32	0.0624	<0.50	<0.000010	<0.00010	0.00126
Creek 661	661-03	Surface	Primary	VA23A2712-002	2/1/2023	0.000148	<0.00050	<0.050	0.347	<0.000050	7.35	<0.000010	2.95	0.0544	1.07	<0.000010	<0.00010	0.00219
Creek 661	661-10	Surface	Primary	VA23C9238-002	12/4/2023	0.000504	<0.00050	<0.050	0.486	<0.000050	7.93	<0.000010	3.34	0.066	0.84	<0.000010	<0.00010	0.00202
Creek 661	661-10	Surface	Primary	VA23C6622-001	11/2/2023	0.000522	<0.00050	<0.050	0.531	<0.000050	8.12	<0.000010	3.48	0.0683	0.76	<0.000010	<0.00010	0.001
Creek 661	661-10	Surface	Primary	VA23C5577-002	10/23/2023	0.000576	<0.00050	<0.050	0.512	<0.000050	7.55	<0.000010	3.57	0.0665	0.77	<0.000010	<0.00010	0.0009
Creek 661	661-10	Surface	Duplicate	VA23C5577-003	10/23/2023	0.000553	<0.00050	<0.050	0.511	0.000051	7.36	<0.000010	3.57	0.0658	0.82	<0.000010	<0.00010	0.00078
Creek 661	661-10	Surface	Primary	VA23C4865-005	10/16/2023	0.000604	<0.00050	<0.050	0.634	0.000062	7.47	<0.000010	3.68	0.0687	0.66	<0.000010	<0.00010	0.00099
Creek 661	661-10	Surface	Primary	VA23C4279-003	10/10/2023	0.000644	<0.00050	<0.050	0.603	0.000061	7.77	<0.000010	3.5	0.0679	0.6	<0.000010	<0.00010	0.00095
Creek 661	661-10	Surface	Primary	VA23C3847-003	10/3/2023	0.00065	<0.00050	<0.050	0.612	<0.000050	7.5	<0.000010	3.58	0.0725	<0.50	<0.000010	<0.00010	0.00092
Creek 661	661-10	Surface	Primary	VA23C0875-001	9/4/2023	0.000618	<0.00050	<0.050	0.529	<0.000050	7.27	<0.000010	3.59	0.0704	<0.50	<0.000010	<0.00010	0.00106
Creek 661	661-10	Surface	Primary	VA23B9359-001	8/17/2023	0.00061	<0.00050	<0.050	0.538	0.000059	6.48	<0.000010	3.45	0.0659	0.58	<0.000010	<0.00010	0.00113
Creek 661	661-10	Surface	Primary	VA23B7293-001	7/25/2023	0.000479	<0.00050	<0.050	0.546	0.000056	6.91	<0.000010	3.28	0.0592	1.43	<0.000010	<0.00010	<0.00360
Creek 661	661-10	Surface	Primary	VA23B3987-001	6/19/2023	0.000404	<0.00050	0.052	0.457	<0.000050	6.2	<0.000010	2.64	0.0479	<0.50	<0.000010	<0.00010	0.00346
Creek 661	661-10	Surface	Primary	VA23B2052-001	5/29/2023	0.000553	<0.00050	<0.050	0.409	0.000059	5.58	<0.000010	2.21	0.0345	0.61	<0.000010	<0.00010	0.00276
Creek 661	661-10	Surface	Primary	VA23B1529-002	5/23/2023	0.000238	<0.00050	<0.050	0.395	0.000067	5.21	<0.000010	2.04	0.0308	<0.50	<0.000010	<0.00010	0.00521
Creek 661	661-10	Surface	Primary	VA23B0766-003	5/15/2023	0.000183	<0.00050	<0.050	0.347	<0.000050	4.34	0.000016	1.66	0.0257	<0.50	<0.000010	<0.00010	0.00572
Creek 661	661-10	Surface	Primary	VA23B0222-003	5/9/2023	0.000178	<0.00050	<0.050	0.469	0.000081	4.73	0.000027	1.77	0.025	<0.50	<0.000010	<0.00010	0.0273
Creek 661	661-10	Surface	Primary	VA23A9531-001	5/1/2023	0.000348	0.00051	0.067	0.888	0.000094	6.8	0.000023	2.55	0.0487	1.02	<0.000010	<0.00010	0.0182
Creek 661	661-10	Surface	Primary	VA23A8011-001	4/12/2023	0.000657	<0.00050	<0.050	0.521	0.000055	7.64	<0.000010	3.54	0.0657	0.7	<0.000010	<0.00010	0.00066

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*												
						Molybdenum (Mo)-Total	Nickel (Ni)-Total	Phosphorus (P)-Total	Potassium (K)-Total	Selenium (Se)-Total	Silicon (Si)-Total	Silver (Ag)-Total	Sodium (Na)-Total	Strontium (Sr)-Total	Sulfur (S)-Total	Thallium (Tl)-Total	Tin (Sn)-Total	Titanium (Ti)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Creek 661	661-10	Surface	Duplicate	VA23A8011-005	4/12/2023	0.000678	<0.00050	<0.050	0.517	0.000067	7.66	<0.000010	3.56	0.0677	0.58	<0.000010	<0.00010	0.00068
Creek 661	661-10	Surface	Primary	VA23A5501-002	3/13/2023	0.000709	<0.00050	<0.050	0.523	<0.000050	8.34	<0.000010	3.59	0.0698	<0.50	<0.000010	<0.00010	<0.00090
Creek 661	661-10	Surface	Primary	VA23A2712-001	2/1/2023	0.000681	<0.00050	<0.050	0.539	<0.000050	7.81	<0.000010	3.43	0.0684	0.62	<0.000010	<0.00010	0.00081
Creek 661	661-10	Surface	Primary	VA23A0821-002	1/11/2023	0.000699	<0.00050	<0.050	0.542	0.000062	8.54	<0.000010	3.64	0.0705	0.54	<0.000010	<0.00010	0.00151
Creek 661	661-20	Surface	Primary	VA23C6622-005	11/2/2023	0.00101	<0.00050	<0.050	0.788	0.000067	8.01	<0.000010	4.84	0.102	0.98	<0.000010	<0.00010	0.00095
Creek 661	661-20	Surface	Duplicate	VA23C6622-006	11/2/2023	0.001	<0.00050	<0.050	0.776	0.00006	7.97	<0.000010	4.78	0.102	0.94	<0.000010	<0.00010	0.00084
Creek 661	661-20	Surface	Primary	VA23C0762-004	8/31/2023	0.00119	<0.00050	<0.050	0.847	0.000068	7.28	<0.000010	4.73	0.11	<0.50	<0.000010	<0.00010	0.00092
Creek 661	661-20	Surface	Primary	VA23B7293-004	7/25/2023	0.000895	<0.00050	<0.050	0.827	0.000064	7.14	<0.000010	4.32	0.0926	<0.50	<0.000010	<0.00010	0.00353
Creek 661	661-20	Surface	Primary	VA23B3987-003	6/19/2023	0.000933	<0.00050	0.065	0.82	0.000101	6.75	<0.000010	4.03	0.0936	<0.50	<0.000010	<0.00010	0.011
Creek 661	661-20	Surface	Primary	VA23A9531-002	5/1/2023	0.00067	0.00086	0.089	1.14	0.000096	7.07	0.000017	2.93	0.0602	0.87	<0.000010	<0.00010	0.021
Creek 661	661-20	Surface	Primary	VA23A8011-004	4/12/2023	0.0009	<0.00050	<0.050	0.915	0.000065	7.56	<0.000010	4.52	0.0853	0.8	<0.000010	<0.00010	0.00579
Creek 661	661-20	Surface	Primary	VA23A5501-003	3/13/2023	0.000968	<0.00050	<0.050	0.764	0.000073	8.4	<0.000010	4.59	0.0941	0.54	<0.000010	<0.00010	0.00056
Creek 661	661-20	Surface	Primary	VA23A2670-002	2/4/2023	0.000986	<0.00050	<0.050	0.734	0.00006	8.12	<0.000010	4.35	0.0914	0.69	<0.000010	<0.00010	0.00077
Creek 661	661-20	Surface	Primary	VA23A0821-003	1/11/2023	0.000913	<0.00050	<0.050	0.777	0.000091	8.32	<0.000010	4.85	0.0947	1.06	<0.000010	<0.00010	0.0006
Creek 661	661-20	Surface	Duplicate	VA23A0821-004	1/11/2023	0.000942	<0.00050	0.056	0.763	0.000096	8.22	<0.000010	4.76	0.0994	1	<0.000010	<0.00010	0.00051
Chedakuz Creek	CC-03	Surface	Primary	VA23C9238-003	12/4/2023	0.00102	<0.00050	<0.050	1.15	0.000062	8.32	<0.000010	5.6	0.13	2.61	<0.000010	<0.00010	0.00041
Chedakuz Creek	CC-03	Surface	Primary	VA23C6622-003	11/2/2023	0.00106	<0.00050	<0.050	1.2	0.000061	8.08	<0.000010	5.75	0.135	2.65	<0.000010	<0.00010	0.00056
Chedakuz Creek	CC-03	Surface	Primary	VA23C5577-004	10/23/2023	0.00102	<0.00050	<0.050	1.12	0.000058	7.77	<0.000010	5.7	0.136	2.02	<0.000010	<0.00010	<0.00030
Chedakuz Creek	CC-03	Surface	Primary	VA23C4865-001	10/16/2023	0.00104	<0.00050	<0.050	1.29	0.000058	7.89	<0.000010	5.79	0.134	2.06	<0.000010	<0.00010	0.0004
Chedakuz Creek	CC-03	Surface	Primary	VA23C4279-001	10/10/2023	0.00109	<0.00050	<0.050	1.31	0.000052	7.72	<0.000010	5.63	0.133	1.96	<0.000010	<0.00010	0.00038
Chedakuz Creek	CC-03	Surface	Primary	VA23C3847-001	10/3/2023	0.00112	<0.00050	<0.050	1.37	<0.000050	7.66	<0.000010	5.85	0.147	1.86	<0.000010	<0.00010	0.00036
Chedakuz Creek	CC-03	Surface	Primary	VA23C1491-003	9/11/2023	0.00121	<0.00050	<0.050	1.25	0.000064	7.56	<0.000010	5.52	0.137	1.38	<0.000010	<0.00010	0.00044
Chedakuz Creek	CC-03	Surface	Primary	VA23C0762-002	8/31/2023	0.00117	0.00056	<0.050	1.16	0.000066	7.14	<0.000010	4.86	0.134	1.24	<0.000010	<0.00010	0.00098
Chedakuz Creek	CC-03	Surface	Primary	VA23B7293-005	7/25/2023	0.000896	<0.00050	<0.050	1.03	0.000065	6.69	<0.000010	4.63	0.115	1.52	<0.000010	<0.00010	0.00114
Chedakuz Creek	CC-03	Surface	Primary	VA23B3987-004	6/19/2023	0.000891	<0.00050	<0.050	1.02	<0.000050	6.38	<0.000010	4.14	0.118	2.62	<0.000010	<0.00010	0.00123
Chedakuz Creek	CC-03	Surface	Primary	VA23B2052-003	5/29/2023	0.000788	<0.00050	<0.050	0.894	0.000068	5.97	<0.000010	3.43	0.0964	1.16	<0.000010	<0.00010	0.00202
Chedakuz Creek	CC-03	Surface	Primary	VA23B1529-003	5/23/2023	0.000699	<0.00050	<0.050	0.862	0.000057	5.65	<0.000010	3.29	0.0894	0.72	<0.000010	<0.00010	0.00225
Chedakuz Creek	CC-03	Surface	Primary	VA23B0766-001	5/15/2023	0.000658	<0.00050	0.058	0.788	0.000077	5.17	<0.000010	3.15	0.0834	0.82	<0.000010	<0.00010	0.00443
Chedakuz Creek	CC-03	Surface	Primary	VA23B0222-004	5/9/2023	0.000499	<0.00050	<0.050	0.707	0.000098	4.25	<0.000010	2.52	0.0559	<0.50	<0.000010	<0.00010	0.00529
Chedakuz Creek	CC-03	Surface	Primary	VA23A9531-004	5/1/2023	0.0005	0.00091	0.077	1.32	0.000076	5.5	<0.000010	2.44	0.057	1.08	<0.000010	<0.00010	0.0191
Chedakuz Creek	CC-03	Surface	Duplicate	VA23A9531-005	5/1/2023	0.000492	0.0009	0.083	1.3	0.00008	5.66	<0.000010	2.43	0.0551	1.1	<0.000010	<0.00010	0.0203
Chedakuz Creek	CC-03	Surface	Primary	VA23A8011-003	4/12/2023	0.00078	<0.00050	<0.050	1.28	0.000062	6.63	<0.000010	4.3	0.104	1.18	<0.000010	<0.00010	0.00283
Chedakuz Creek	CC-03	Surface	Primary	VA23A5501-004	3/13/2023	0.00076	<0.00050	<0.050	1.12	<0.000050	7.38	<0.000010	4.41	0.118	0.93	<0.000010	<0.00010	0.00071
Chedakuz Creek	CC-03	Surface	Duplicate	VA23A5501-005	3/13/2023	0.000776	<0.00050	<0.050	1.14	0.000052	7.42	<0.000010	4.63	0.119	1.13	<0.000010	<0.00010	0.00077
Chedakuz Creek	CC-03	Surface	Primary	VA23A2712-003	2/1/2023	0.000761	<0.00050	<0.050	1.17	0.00008	7.18	<0.000010	4.37	0.115	1.35	<0.000010	<0.00010	0.00069
Chedakuz Creek	CC-03	Surface	Primary	VA23A0821-001	1/11/2023	0.000799	<0.00050	<0.050	1.18	0.000063	7.69	<0.000010	4.71	0.126	1.66	<0.000010	<0.00010	0.00126
Chedakuz Creek	CC-05	Surface	Primary	VA23C6622-004	11/2/2023	0.000974	<0.00050	<0.050	0.929	<0.000050	7.99	<0.000010	5.08	0.117	1.62	<0.000010	<0.00010	0.00105
Chedakuz Creek	CC-05	Surface	Primary	VA23C5577-005	10/23/2023	0.000973	<0.00050	<0.050	0.882	<0.000050	7.38	<0.000010	5.19	0.115	1.26	<0.000010	<0.00010	0.00044
Chedakuz Creek	CC-05	Surface	Primary	VA23C4865-002	10/16/2023	0.000963	<0.00050	<0.050	1.04	0.000059	7.55	<0.000010	5.46	0.112	1.26	<0.000010	<0.00010	0.00047
Chedakuz Creek	CC-05	Surface	Primary	VA23C4279-002	10/10/2023	0.00103	<0.00050	<0.050	1.04	<0.000050	7.63	<0.000010	5.17	0.117	1.23	<0.000010	<0.00010	0.00036
Chedakuz Creek	CC-05	Surface	Primary	VA23C3847-002	10/3/2023	0.00109	<0.00050	<0.050	1.11	0.000054	7.58	<0.000010	5.45	0.129	1.21	<0.000010	<0.00010	0.00042
Chedakuz Creek	CC-05	Surface	Primary	VA23C0762-001	8/31/2023	0.00111	0.00058	<0.050	1	0.000074	7.02	<0.000010	4.7	0.118	0.79	<0.000010	<0.00010	0.0015
Chedakuz Creek	CC-05	Surface	Duplicate	VA23C0762-003	8/31/2023	0.00115	0.00053	<0.050	1	0.000076	7.17	<0.000010	4.73	0.122	0.89	<0.000010	<0.00010	0.00275
Chedakuz Creek	CC-05	Surface	Primary	VA23B2052-004	5/29/2023	0.000716	<0.00050	<0.050	0.842	0.000064	6.19	<0.000010	3.35	0.0846	1.07	<0.000010	<0.00010	0.0028
Chedakuz Creek	CC-05	Surface	Primary	VA23B1529-004	5/23/2023	0.000648	<0.00050	<0.050	0.809	0.000053	5.96	<0.000010	3.17	0.0773	0.85	<0.000010	<0.00010	0.00374
Chedakuz Creek	CC-05	Surface	Primary	VA23B0766-002	5/15/2023	0.000531	<0.00050	<0.050	0.654	0.000074	5.07	<0.000010	2.67	0.0591	0.74	<0.000010	<0.00010	0.00708

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*												
						Molybdenum (Mo)-Total	Nickel (Ni)-Total	Phosphorus (P)-Total	Potassium (K)-Total	Selenium (Se)-Total	Silicon (Si)-Total	Silver (Ag)-Total	Sodium (Na)-Total	Strontium (Sr)-Total	Sulfur (S)-Total	Thallium (Tl)-Total	Tin (Sn)-Total	Titanium (Ti)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Chedakuz Creek	CC-05	Surface	Primary	VA23B0222-005	5/9/2023	0.00044	0.00065	0.069	0.704	0.00009	4.99	0.000014	2.31	0.0447	<0.50	<0.000010	<0.00010	0.016
Chedakuz Creek	CC-05	Surface	Primary	VA23A9531-003	5/1/2023	0.000536	0.00112	0.115	1.29	0.000054	6.48	0.000012	2.6	0.0602	1.15	<0.000010	<0.00010	0.0299
Chedakuz Creek	CC-05	Surface	Primary	VA23A2712-004	2/1/2023	0.000807	<0.00050	<0.050	0.979	0.000072	7.63	<0.000010	4.36	0.101	1.12	<0.000010	<0.00010	0.00036
Chedakuz Creek	CC-10	Surface	Primary	VA23C6498-005	11/1/2023	0.000608	<0.00050	<0.050	0.81	0.000068	3.45	<0.000010	3.41	0.0982	1.16	<0.000010	<0.00010	<0.00030
Chedakuz Creek	CC-10	Surface	Primary	VA23B9219-006	8/16/2023	0.000631	<0.00050	<0.050	0.763	0.000081	2.76	<0.000010	3.53	0.102	1.45	<0.000010	0.00012	<0.00030
Chedakuz Creek	CC-10	Surface	Primary	VA23B0508-006	5/11/2023	0.000561	0.00061	0.122	0.879	0.000054	5.04	<0.000010	3.38	0.0954	1.42	<0.000010	<0.00010	0.0162
Chedakuz Creek	CC-10	Surface	Primary	VA23A3177-008	2/8/2023	0.000574	<0.00050	<0.050	0.804	0.000083	4.89	<0.000010	3.57	0.102	1.28	<0.000010	<0.00010	<0.00030
Chedakuz Creek	CC-15	Surface	Primary	VA23C9626-003	12/6/2023	0.000659	<0.00050	<0.050	0.779	0.000075	5.45	<0.000010	3.66	0.0998	1.61	<0.000010	<0.00010	0.00141
Chedakuz Creek	CC-15	Surface	Primary	VA23C6498-004	11/1/2023	0.000718	<0.00050	<0.050	0.807	0.000067	4.82	<0.000010	3.51	0.105	1.28	<0.000010	<0.00010	0.00378
Chedakuz Creek	CC-15	Surface	Primary	VA23C5771-003	10/24/2023	0.000727	<0.00050	<0.050	0.839	0.000069	4.41	<0.000010	3.49	0.1	1.14	<0.000010	<0.00010	0.00276
Chedakuz Creek	CC-15	Surface	Primary	VA23C5184-004	10/20/2023	0.000755	<0.00050	<0.050	0.921	0.00005	4.54	<0.000010	3.96	0.106	1.18	<0.000010	<0.00010	0.00082
Chedakuz Creek	CC-15	Surface	Primary	VA23C4458-002	10/11/2023	0.000789	<0.00050	<0.050	0.885	0.000058	4.56	<0.000010	3.79	0.106	1.39	<0.000010	<0.00010	0.00064
Chedakuz Creek	CC-15	Surface	Primary	VA23C3871-002	10/4/2023	0.000724	<0.00050	<0.050	0.93	0.000057	4.48	<0.000010	3.86	0.101	1.27	<0.000010	<0.00010	0.00257
Chedakuz Creek	CC-15	Surface	Primary	VA23C2546-004	9/20/2023	0.00082	<0.00050	<0.050	0.825	0.000078	4.17	<0.000010	3.38	0.103	0.97	<0.000010	<0.00010	0.00244
Chedakuz Creek	CC-15	Surface	Primary	VA23B9868-004	8/23/2023	0.000714	<0.00050	<0.050	0.881	0.00007	4.26	<0.000010	3.52	0.0996	1.37	<0.000010	<0.00010	0.00291
Chedakuz Creek	CC-15	Surface	Primary	VA23B7734-006	7/31/2023	0.000718	<0.00050	<0.050	0.838	0.000081	4.45	<0.000010	3.22	0.0936	1.65	<0.000010	<0.00010	0.00176
Chedakuz Creek	CC-15	Surface	Primary	VA23B2847-002	6/6/2023	0.000616	<0.00050	<0.050	0.82	0.000064	4.96	<0.000010	3.29	0.0901	1.26	<0.000010	<0.00010	0.00534
Chedakuz Creek	CC-15	Surface	Primary	VA23B2219-005	5/30/2023	0.000983	<0.00050	<0.050	0.822	0.000066	5.33	<0.000010	3.34	0.0898	1.26	<0.000010	<0.00010	0.00227
Chedakuz Creek	CC-15	Surface	Primary	VA23B1690-003	5/24/2023	0.000558	<0.00050	<0.050	0.77	0.000053	4.7	<0.000010	2.88	0.0801	0.98	<0.000010	<0.00010	0.00372
Chedakuz Creek	CC-15	Surface	Primary	VA23B1108-004	5/17/2023	0.000534	0.00053	<0.050	0.733	0.00008	4.91	<0.000010	2.93	0.077	0.95	<0.000010	<0.00010	0.00771
Chedakuz Creek	CC-15	Surface	Primary	VA23B0508-003	5/11/2023	0.000553	0.00062	<0.050	0.841	0.000074	4.9	<0.000010	2.55	0.0711	1.06	<0.000010	<0.00010	0.0108
Chedakuz Creek	CC-15	Surface	Duplicate	VA23B0508-007	5/11/2023	0.000527	0.00052	0.05	0.829	0.000088	4.85	<0.000010	2.56	0.0713	1.07	<0.000010	<0.00010	0.0156
Chedakuz Creek	CC-15	Surface	Primary	VA23A9782-002	5/3/2023	0.000743	0.00141	0.104	1.4	0.000142	6.66	0.000017	2.43	0.0706	1.42	<0.000010	<0.00010	0.0449
Chedakuz Creek	CC-15	Surface	Primary	VA23A9207-002	4/26/2023	0.000763	<0.00050	<0.050	1.01	0.000067	5.56	<0.000010	3.04	0.0957	1.24	<0.000010	<0.00010	<0.0114
Chedakuz Creek	CC-15	Surface	Primary	VA23A6844-003	3/27/2023	0.000674	0.00056	0.058	1.02	0.000072	5.43	<0.000010	3.61	0.104	1.28	<0.000010	<0.00010	<0.00840
Chedakuz Creek	CC-15	Surface	Primary	VA23A2861-001	2/6/2023	0.000688	<0.00050	<0.050	0.81	0.000106	5.55	<0.000010	3.44	0.1	1.22	<0.000010	<0.00010	0.00069
Chedakuz Creek	CC-15	Surface	Primary	VA23A1889-002	1/24/2023	0.00074	<0.00050	<0.050	0.879	0.000071	5.61	<0.000010	3.59	0.108	1.36	<0.000010	<0.00010	0.00148
Chedakuz Creek	CC-20	Surface	Primary	VA23C9626-002	12/6/2023	0.00067	<0.00050	<0.050	0.776	0.000053	5.37	<0.000010	3.45	0.102	1.22	<0.000010	<0.00010	0.00122
Chedakuz Creek	CC-20	Surface	Primary	VA23C6498-003	11/1/2023	0.000701	<0.00050	<0.050	0.817	0.000073	4.86	<0.000010	3.56	0.107	1.18	<0.000010	<0.00010	0.00061
Chedakuz Creek	CC-20	Surface	Primary	VA23C5771-004	10/24/2023	0.000708	<0.00050	<0.050	0.836	<0.000050	4.6	<0.000010	3.56	0.103	1.17	<0.000010	<0.00010	0.00196
Chedakuz Creek	CC-20	Surface	Primary	VA23C5184-005	10/20/2023	0.000783	<0.00050	<0.050	0.904	0.000054	4.82	<0.000010	3.99	0.11	1.22	<0.000010	<0.00010	0.00051
Chedakuz Creek	CC-20	Surface	Primary	VA23C4458-003	10/11/2023	0.000743	<0.00050	<0.050	0.884	0.00007	4.59	<0.000010	3.78	0.107	1.2	<0.000010	<0.00010	0.00057
Chedakuz Creek	CC-20	Surface	Primary	VA23C3871-003	10/4/2023	0.000748	<0.00050	<0.050	0.906	<0.000050	4.67	<0.000010	4.01	0.104	1.38	<0.000010	<0.00010	0.00036
Chedakuz Creek	CC-20	Surface	Duplicate	VA23C3871-004	10/4/2023	0.000752	<0.00050	<0.050	0.89	0.000061	4.6	<0.000010	3.9	0.104	1.2	<0.000010	<0.00010	0.00039
Chedakuz Creek	CC-20	Surface	Primary	VA23C2546-003	9/20/2023	0.000792	<0.00050	<0.050	0.832	0.000059	4.12	<0.000010	3.41	0.103	0.88	<0.000010	<0.00010	0.00162
Chedakuz Creek	CC-20	Surface	Primary	VA23B9868-005	8/23/2023	0.00158	<0.00050	<0.050	0.846	0.000065	4.25	<0.000010	3.43	0.101	1.31	<0.000010	<0.00010	0.00142
Chedakuz Creek	CC-20	Surface	Primary	VA23B7734-007	7/31/2023	0.000864	<0.00050	<0.050	0.852	0.000069	4.63	<0.000010	3.31	0.0958	1.66	<0.000010	<0.00010	0.00178
Chedakuz Creek	CC-20	Surface	Primary	VA23B4330-006	6/21/2023	0.000663	<0.00050	<0.050	0.819	0.000079	4.22	<0.000010	3.14	0.0896	1.08	<0.000010	<0.00010	0.00078
Chedakuz Creek	CC-20	Surface	Primary	VA23B2219-002	5/30/2023	0.00091	<0.00050	<0.050	0.802	0.00009	5.13	<0.000010	3.23	0.0889	1.33	<0.000010	<0.00010	0.00206
Chedakuz Creek	CC-20	Surface	Duplicate	VA23B2219-003	5/30/2023	0.000915	<0.00050	<0.050	0.812	0.00007	5.44	<0.000010	3.27	0.0891	1.32	<0.000010	<0.00010	0.00194
Chedakuz Creek	CC-20	Surface	Primary	VA23B1690-004	5/24/2023	0.00056	<0.00050	<0.050	0.727	<0.000050	4.69	<0.000010	2.81	0.0773	1.14	<0.000010	<0.00010	0.00235
Chedakuz Creek	CC-20	Surface	Primary	VA23B1108-003	5/17/2023	0.000534	<0.00050	<0.050	0.725	0.00006	4.9	<0.000010	2.8	0.0757	1	<0.000010	<0.00010	0.00692
Chedakuz Creek	CC-20	Surface	Primary	VA23B0508-004	5/11/2023	0.000542	<0.00050	0.059	0.914	0.000081	5.06	<0.000010	2.7	0.0719	1.11	<0.000010	<0.00010	0.00993
Chedakuz Creek	CC-20	Surface	Primary	VA23A9782-003	5/3/2023	0.000676	0.00093	0.086	1.31	0.000123	5.83	0.000015	2.3	0.0663	1.32	<0.000010	<0.00010	0.025
Chedakuz Creek	CC-20	Surface	Primary	VA23A9076-002	4/25/2023	0.000692	<0.00050	<0.050	0.999	0.000053	5.3	<0.000010	3.23	0.0928	1.46	<0.000010	<0.00010	0.00476
Chedakuz Creek	CC-20	Surface	Primary	VA23A6844-002	3/27/2023	0.00067	<0.00050	<0.050	0.929	<0.000050	5.35	<0.000010	3.59	0.105	1.21	<0.000010	<0.00010	0.00291

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*												
						Molybdenum (Mo)-Total	Nickel (Ni)-Total	Phosphorus (P)-Total	Potassium (K)-Total	Selenium (Se)-Total	Silicon (Si)-Total	Silver (Ag)-Total	Sodium (Na)-Total	Strontium (Sr)-Total	Sulfur (S)-Total	Thallium (Tl)-Total	Tin (Sn)-Total	Titanium (Ti)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Chedakuz Creek	CC-20	Surface	Primary	VA23A2861-002	2/6/2023	0.000664	<0.00050	0.054	0.813	0.000086	5.58	<0.000010	3.54	0.0987	1.26	<0.000010	<0.00010	0.00048
Chedakuz Creek	CC-20	Surface	Primary	VA23A1412-002	1/18/2023	0.000656	<0.00050	<0.050	0.844	0.000067	5.35	<0.000010	3.63	0.104	1.35	<0.000010	<0.00010	0.00067
Chedakuz Creek	CC-30	Surface	Primary	VA23C6498-002	11/1/2023	0.000919	<0.00050	<0.050	0.912	0.000077	5.43	<0.000010	4.48	0.117	1.2	<0.000010	<0.00010	0.00074
Chedakuz Creek	CC-30	Surface	Primary	VA23C0393-002	8/29/2023	0.00102	<0.00050	<0.050	1.02	0.000058	4.15	<0.000010	4.21	0.111	1.18	<0.000010	<0.00010	0.00066
Chedakuz Creek	CC-30	Surface	Duplicate	VA23C0393-003	8/29/2023	0.000986	<0.00050	<0.050	1.02	<0.000050	4.13	<0.000010	4.33	0.107	1.16	<0.000010	<0.00010	<0.00180
Chedakuz Creek	CC-30	Surface	Primary	VA23B0508-001	5/11/2023	0.000528	<0.00050	0.052	0.909	0.000067	5.04	<0.000010	2.62	0.0684	1.08	<0.000010	<0.00010	0.0108
Chedakuz Creek	CC-30	Surface	Primary	VA23A3560-001	2/14/2023	0.000813	<0.00050	<0.050	0.956	0.000086	5.85	<0.000010	4.16	0.107	1.44	<0.000010	<0.00010	0.00167
Chedakuz Creek	CC-40	Surface	Primary	VA23C9626-001	12/6/2023	0.000934	<0.00050	<0.050	0.952	0.000072	5.79	<0.000010	4.82	0.12	1.42	<0.000010	<0.00010	0.00075
Chedakuz Creek	CC-40	Surface	Primary	VA23C6498-001	11/1/2023	0.00103	<0.00050	<0.050	1.01	0.000078	5.74	<0.000010	5.16	0.122	1.6	<0.000010	<0.00010	0.00147
Chedakuz Creek	CC-40	Surface	Primary	VA23C5771-001	10/24/2023	0.000998	<0.00050	<0.050	0.971	0.000056	5.4	<0.000010	4.85	0.113	1.26	<0.000010	<0.00010	0.00208
Chedakuz Creek	CC-40	Surface	Duplicate	VA23C5771-002	10/24/2023	0.00103	<0.00050	<0.050	0.969	<0.000050	5.38	<0.000010	4.8	0.117	1.33	<0.000010	<0.00010	0.00354
Chedakuz Creek	CC-40	Surface	Primary	VA23C5184-001	10/20/2023	0.00113	<0.00050	<0.050	1.07	0.000051	5.05	<0.000010	5.3	0.128	1.35	<0.000010	<0.00010	0.00058
Chedakuz Creek	CC-40	Surface	Primary	VA23C4458-001	10/11/2023	0.00117	<0.00050	<0.050	1.1	0.000067	5.06	<0.000010	5.29	0.128	1.49	<0.000010	<0.00010	0.00069
Chedakuz Creek	CC-40	Surface	Primary	VA23C3871-001	10/4/2023	0.00108	<0.00050	<0.050	1.12	0.000059	5.05	<0.000010	5.41	0.118	1.63	<0.000010	<0.00010	0.0005
Chedakuz Creek	CC-40	Surface	Primary	VA23C2546-005	9/20/2023	0.00114	<0.00050	<0.050	1	0.000053	4.4	<0.000010	4.71	0.123	1.08	<0.000010	<0.00010	0.00043
Chedakuz Creek	CC-40	Surface	Primary	VA23C0393-001	8/29/2023	0.00109	<0.00050	<0.050	1.05	<0.000050	4.21	<0.000010	4.58	0.116	1.3	<0.000010	<0.00010	0.0006
Chedakuz Creek	CC-40	Surface	Primary	VA23B7523-007	7/27/2023	0.000898	<0.00050	<0.050	0.895	0.000059	5	<0.000010	4.22	0.104	2.08	<0.000010	<0.00010	<0.00120
Chedakuz Creek	CC-40	Surface	Primary	VA23B2847-001	6/6/2023	0.000743	0.00052	<0.050	0.805	0.000062	5.06	<0.000010	3.82	0.0902	1.34	<0.000010	<0.00010	0.00195
Chedakuz Creek	CC-40	Surface	Primary	VA23B2219-001	5/30/2023	0.000697	0.00065	<0.050	0.847	0.000072	5.7	<0.000010	3.43	0.0907	1.24	<0.000010	<0.00010	0.0175
Chedakuz Creek	CC-40	Surface	Primary	VA23B1690-001	5/24/2023	0.000566	<0.00050	<0.050	0.768	<0.000050	5.01	<0.000010	3.07	0.0803	1.05	<0.000010	<0.00010	0.00578
Chedakuz Creek	CC-40	Surface	Primary	VA23B1108-001	5/17/2023	0.000529	0.00058	<0.050	0.755	0.000054	5.19	<0.000010	2.74	0.0721	0.8	<0.000010	<0.00010	0.0108
Chedakuz Creek	CC-40	Surface	Duplicate	VA23B1108-002	5/17/2023	0.000521	0.00061	<0.050	0.75	0.000094	5.18	<0.000010	2.83	0.0729	0.95	<0.000010	<0.00010	0.0111
Chedakuz Creek	CC-40	Surface	Primary	VA23B0508-002	5/11/2023	0.000511	0.00063	0.061	0.965	0.000054	5.29	<0.000010	2.64	0.0668	1.1	<0.000010	<0.00010	0.013
Chedakuz Creek	CC-40	Surface	Primary	VA23A9782-001	5/3/2023	0.000678	0.00121	0.097	1.57	0.000121	6.02	0.00001	2.69	0.0721	1.2	<0.000010	<0.00010	0.0258
Chedakuz Creek	CC-40	Surface	Primary	VA23A9207-001	4/26/2023	0.000795	<0.00050	<0.050	1.3	0.000085	5.55	<0.000010	3.76	0.0972	1.2	<0.000010	<0.00010	0.00755
Chedakuz Creek	CC-40	Surface	Primary	VA23A6844-001	3/27/2023	0.000896	<0.00050	<0.050	1.16	0.000066	5.62	<0.000010	4.35	0.113	1.43	<0.000010	<0.00010	0.00117
Chedakuz Creek	CC-40	Surface	Primary	VA23A3035-001	2/7/2023	0.000827	<0.00050	<0.050	0.93	0.000077	5.79	<0.000010	4.26	0.103	0.97	<0.000010	<0.00010	0.00112
Chedakuz Creek	CC-40	Surface	Primary	VA23A1412-001	1/18/2023	0.00085	<0.00050	<0.050	1.01	0.00005	5.71	<0.000010	4.54	0.114	1.29	<0.000010	<0.00010	0.00094
Creek 705	705-05	Surface	Primary	VA23C9661-004	12/7/2023	0.000568	<0.00050	<0.050	0.342	<0.000050	3.34	<0.000010	2.14	0.057	<0.50	<0.000010	<0.00010	0.00096
Creek 705	705-05	Surface	Primary	VA23C7190-010	11/9/2023	0.000471	<0.00050	<0.050	0.341	<0.000050	3.68	<0.000010	1.97	0.0541	0.54	<0.000010	<0.00010	0.00149
Creek 705	705-05	Surface	Duplicate	VA23C7190-011	11/9/2023	0.000523	<0.00050	<0.050	0.334	<0.000050	3.64	<0.000010	1.98	0.0542	0.56	<0.000010	<0.00010	0.00151
Creek 705	705-05	Surface	Primary	VA23C4014-006	10/6/2023	0.000612	<0.00050	<0.050	0.375	<0.000050	3.01	<0.000010	1.9	0.0542	<0.50	<0.000010	<0.00010	0.00067
Creek 705	705-05	Surface	Primary	VA23C1674-001	9/12/2023	0.000644	<0.00050	<0.050	0.349	<0.000050	3.47	<0.000010	2.1	0.0618	<0.50	<0.000010	<0.00010	0.00134
Creek 705	705-05	Surface	Primary	VA23B8906-003	8/14/2023	0.000613	<0.00050	<0.050	0.292	<0.000050	3.71	<0.000010	1.84	0.055	<0.50	<0.000010	<0.00010	0.00114
Creek 705	705-05	Surface	Duplicate	VA23B8906-004	8/14/2023	0.000622	<0.00050	<0.050	0.291	<0.000050	3.65	<0.000010	1.84	0.0548	<0.50	<0.000010	<0.00010	0.00127
Creek 705	705-05	Surface	Primary	VA23B7523-003	7/27/2023	0.000411	<0.00050	<0.050	0.224	<0.000050	4	<0.000010	1.73	0.0502	<0.50	<0.000010	<0.00010	0.00236
Creek 705	705-05	Surface	Primary	VA23B3687-004	6/14/2023	0.000626	<0.00050	<0.050	0.222	0.000053	3.65	<0.000010	1.72	0.0407	<0.50	<0.000010	<0.00010	0.0012
Creek 705	705-05	Surface	Primary	VA23B0364-002	5/10/2023	0.000264	<0.00050	<0.050	0.333	0.000058	3.5	<0.000010	1.26	0.034	<0.50	<0.000010	<0.00010	0.00368
Creek 705	705-05	Surface	Primary	VA23A8158-003	4/13/2023	0.000411	<0.00050	<0.050	0.359	<0.000050	4.52	<0.000010	2.41	0.0556	0.62	<0.000010	<0.00010	<0.00480
Creek 705	705-05	Surface	Primary	VA23A6844-006	3/28/2023	0.000582	<0.00050	<0.050	0.275	<0.000050	3.59	<0.000010	2.04	0.0485	<0.50	<0.000010	<0.00010	0.00077
Creek 705	705-05	Surface	Primary	VA23A3268-004	2/9/2023	0.000642	<0.00050	<0.050	0.235	<0.000050	3.32	<0.000010	1.93	0.0498	<0.50	<0.000010	<0.00010	0.00067
Creek 705	705-05	Surface	Primary	VA23A1264-002	1/17/2023	0.000579	<0.00050	<0.050	0.252	<0.000050	3.73	<0.000010	2.1	0.048	<0.50	<0.000010	<0.00010	0.00088
Creek 705	705-10	Surface	Primary	VA23C9661-005	12/7/2023	0.000462	<0.00050	<0.050	0.311	<0.000050	3.85	<0.000010	2.48	0.0589	<0.50	<0.000010	<0.00010	0.00054
Creek 705	705-10	Surface	Primary	VA23C6880-001	11/6/2023	0.000779	<0.00050	<0.050	0.351	<0.000050	3.92	<0.000010	2.26	0.0591	<0.50	<0.000010	<0.00010	0.00182
Creek 705	705-10	Surface	Primary	VA23C6383-004	10/31/2023	0.00049	<0.00050	<0.050	0.314	<0.000050	4.09	<0.000010	2.56	0.0656	0.51	<0.000010	<0.00010	0.00036
Creek 705	705-10	Surface	Duplicate	VA23C6383-006	10/31/2023	0.000765	<0.00050	<0.050	0.377	<0.000050	5.57	<0.000010	2.28	0.0535	0.86	<0.000010	<0.00010	<0.00030

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*												
						Molybdenum (Mo)-Total	Nickel (Ni)-Total	Phosphorus (P)-Total	Potassium (K)-Total	Selenium (Se)-Total	Silicon (Si)-Total	Silver (Ag)-Total	Sodium (Na)-Total	Strontium (Sr)-Total	Sulfur (S)-Total	Thallium (Tl)-Total	Tin (Sn)-Total	Titanium (Ti)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Creek 705	705-10	Surface	Primary	VA23C5894-004	10/25/2023	0.000516	<0.00050	<0.050	0.307	<0.000050	4.15	<0.000010	2.59	0.0648	<0.50	<0.000010	<0.00010	0.00035
Creek 705	705-10	Surface	Primary	VA23C4858-004	10/17/2023	0.000535	<0.00050	<0.050	0.316	<0.000050	3.5	<0.000010	2.41	0.0606	<0.50	<0.000010	<0.00010	0.00031
Creek 705	705-10	Surface	Primary	VA23C4586-005	10/14/2023	0.000476	<0.00050	<0.050	0.316	0.000055	3.5	<0.000010	2.36	0.0599	<0.50	<0.000010	<0.00010	<0.00030
Creek 705	705-10	Surface	Primary	VA23C4014-007	10/6/2023	0.000596	<0.00050	<0.050	0.32	<0.000050	3.59	<0.000010	2.14	0.0581	<0.50	<0.000010	<0.00010	0.00037
Creek 705	705-10	Surface	Primary	VA23C1674-002	9/12/2023	0.000582	<0.00050	<0.050	0.346	<0.000050	3.93	<0.000010	2.39	0.0597	<0.50	<0.000010	<0.00010	0.00036
Creek 705	705-10	Surface	Primary	VA23B8906-002	8/14/2023	0.000491	<0.00050	<0.050	0.311	<0.000050	4.13	<0.000010	2.01	0.0545	<0.50	<0.000010	<0.00010	0.00083
Creek 705	705-10	Surface	Primary	VA23B7523-002	7/27/2023	0.000378	<0.00050	<0.050	0.268	<0.000050	4.35	<0.000010	1.92	0.0512	<0.50	<0.000010	<0.00010	0.00252
Creek 705	705-10	Surface	Primary	VA23B3687-005	6/14/2023	0.000502	<0.00050	<0.050	0.302	<0.000050	4.35	<0.000010	1.94	0.0527	<0.50	<0.000010	<0.00010	0.00072
Creek 705	705-10	Surface	Primary	VA23B2224-004	5/31/2023	0.000816	<0.00050	<0.050	0.275	<0.000050	4.1	<0.000010	1.78	0.0472	<0.50	<0.000010	<0.00010	0.00178
Creek 705	705-10	Surface	Primary	VA23B1379-005	5/22/2023	0.00036	<0.00050	<0.050	0.286	<0.000050	4.12	<0.000010	1.58	0.0399	<0.50	<0.000010	<0.00010	0.00255
Creek 705	705-10	Surface	Primary	VA23B0766-009	5/16/2023	0.000228	<0.00050	<0.050	0.241	<0.000050	3.7	<0.000010	1.29	0.033	<0.50	<0.000010	<0.00010	0.00602
Creek 705	705-10	Surface	Primary	VA23B0364-003	5/10/2023	0.000255	<0.00050	<0.050	0.344	<0.000050	4	<0.000010	1.35	0.0373	<0.50	<0.000010	<0.00010	0.00652
Creek 705	705-10	Surface	Primary	VA23A9638-001	5/2/2023	0.000174	0.00108	<0.050	0.678	0.000056	4.63	0.000015	1.4	0.0381	0.57	<0.000010	<0.00010	0.0138
Creek 705	705-10	Surface	Primary	VA23A8158-001	4/13/2023	0.000423	<0.00050	<0.050	0.371	<0.000050	4.4	<0.000010	2.46	0.057	0.58	<0.000010	<0.00010	0.00316
Creek 705	705-10	Surface	Duplicate	VA23A8158-002	4/13/2023	0.000388	<0.00050	<0.050	0.35	<0.000050	4.52	<0.000010	2.45	0.0574	0.65	<0.000010	<0.00010	0.00298
Creek 705	705-10	Surface	Primary	VA23A6844-005	3/27/2023	0.000475	<0.00050	<0.050	0.304	<0.000050	4.25	<0.000010	2.42	0.0589	0.63	<0.000010	<0.00010	0.0009
Creek 705	705-10	Surface	Primary	VA23A3268-005	2/9/2023	0.000472	<0.00050	<0.050	0.264	<0.000050	4.15	<0.000010	2.18	0.0516	<0.50	<0.000010	<0.00010	0.00101
Creek 705	705-10	Surface	Primary	VA23A1264-003	1/17/2023	0.000359	<0.00050	<0.050	0.306	<0.000050	4.88	<0.000010	2.37	0.049	<0.50	<0.000010	<0.00010	0.00185
Fawnie Creek	FC-01	Surface	Primary	VA23C9661-006	12/7/2023	0.000766	<0.00050	<0.050	0.374	<0.000050	5.46	<0.000010	2.5	0.0534	0.66	<0.000010	<0.00010	<0.00030
Fawnie Creek	FC-01	Surface	Primary	VA23C6880-002	11/6/2023	0.000682	<0.00050	<0.050	0.368	<0.000050	4.92	<0.000010	2.14	0.0499	0.81	<0.000010	<0.00010	<0.00030
Fawnie Creek	FC-01	Surface	Primary	VA23C6383-005	10/31/2023	0.000496	<0.00050	<0.050	0.314	<0.000050	4.14	<0.000010	2.53	0.0664	<0.50	<0.000010	<0.00010	0.00035
Fawnie Creek	FC-01	Surface	Primary	VA23C5894-005	10/25/2023	0.000726	<0.00050	<0.050	0.366	<0.000050	5.6	<0.000010	2.3	0.0547	0.92	<0.000010	<0.00010	<0.00030
Fawnie Creek	FC-01	Surface	Primary	VA23C4858-005	10/17/2023	0.000715	<0.00050	<0.050	0.394	<0.000050	5.14	<0.000010	2.29	0.0503	0.77	<0.000010	<0.00010	0.00067
Fawnie Creek	FC-01	Surface	Duplicate	VA23C4858-006	10/17/2023	0.000736	<0.00050	<0.050	0.382	<0.000050	5.06	<0.000010	2.25	0.0506	0.75	<0.000010	<0.00010	0.0009
Fawnie Creek	FC-01	Surface	Primary	VA23C4586-006	10/14/2023	0.000688	<0.00050	<0.050	0.406	<0.000050	5.05	<0.000010	2.42	0.054	<0.50	<0.000010	<0.00010	<0.00030
Fawnie Creek	FC-01	Surface	Primary	VA23C4014-008	10/6/2023	0.000688	<0.00050	<0.050	0.391	<0.000050	5.24	<0.000010	2.11	0.049	0.7	<0.000010	<0.00010	<0.00030
Fawnie Creek	FC-01	Surface	Primary	VA23C0875-004	9/4/2023	0.000692	<0.00050	<0.050	0.453	<0.000050	5.63	<0.000010	2.44	0.0544	0.67	<0.000010	<0.00010	<0.00030
Fawnie Creek	FC-01	Surface	Primary	VA23B8906-001	8/14/2023	0.000528	<0.00050	<0.050	0.397	<0.000050	5.21	<0.000010	1.86	0.045	<0.50	<0.000010	<0.00010	<0.00030
Fawnie Creek	FC-01	Surface	Primary	VA23B7523-001	7/27/2023	0.000428	<0.00050	<0.050	0.375	<0.000050	5	<0.000010	1.71	0.0411	0.57	<0.000010	<0.00010	<0.00030
Fawnie Creek	FC-01	Surface	Primary	VA23B4330-001	6/21/2023	0.000313	<0.00050	<0.050	0.311	<0.000050	4.46	<0.000010	1.32	0.0325	0.54	<0.000010	<0.00010	0.00046
Fawnie Creek	FC-01	Surface	Primary	VA23B2224-003	5/31/2023	0.00033	<0.00050	<0.050	0.298	<0.000050	4.29	<0.000010	1.27	0.0287	<0.50	<0.000010	<0.00010	0.00088
Fawnie Creek	FC-01	Surface	Primary	VA23B1379-006	5/22/2023	0.000202	<0.00050	<0.050	0.271	<0.000050	3.85	<0.000010	0.972	0.0234	0.53	<0.000010	<0.00010	0.0023
Fawnie Creek	FC-01	Surface	Primary	VA23B0766-006	5/15/2023	0.000145	0.00062	0.088	0.367	<0.000050	4.14	0.000015	0.888	0.0223	<0.50	0.000012	<0.00010	0.037
Fawnie Creek	FC-01	Surface	Primary	VA23B0364-004	5/10/2023	0.000191	<0.00050	<0.050	0.351	<0.000050	3.68	0.000012	0.999	0.0237	<0.50	<0.000010	<0.00010	0.00461
Fawnie Creek	FC-01	Surface	Primary	VA23A9638-002	5/2/2023	0.000641	0.00056	<0.050	0.488	0.000061	5.79	<0.000010	1.95	0.0518	0.77	<0.000010	<0.00010	0.0212
Fawnie Creek	FC-01	Surface	Primary	VA23A8158-005	4/13/2023	0.00103	<0.00050	<0.050	0.458	<0.000050	5.34	<0.000010	2.92	0.0596	1.04	<0.000010	<0.00010	0.00031
Fawnie Creek	FC-01	Surface	Primary	VA23A6844-004	3/27/2023	0.00105	<0.00050	<0.050	0.46	<0.000050	5.44	<0.000010	2.7	0.0616	0.9	<0.000010	<0.00010	0.00125
Fawnie Creek	FC-01	Surface	Primary	VA23A3268-006	2/9/2023	0.00102	<0.00050	<0.050	0.417	0.000075	5.66	<0.000010	2.73	0.0632	1	<0.000010	<0.00010	<0.00030
Fawnie Creek	FC-01	Surface	Duplicate	VA23A3268-007	2/9/2023	0.000993	<0.00050	<0.050	0.41	0.000082	5.45	<0.000010	2.6	0.0624	0.84	<0.000010	<0.00010	<0.00030
Fawnie Creek	FC-01	Surface	Primary	VA23A1264-001	1/17/2023	0.00101	<0.00050	<0.050	0.433	0.000065	5.56	<0.000010	2.68	0.0604	0.75	<0.000010	<0.00010	<0.00030
Field Blank	-	-	-	VA23C9661-007	12/7/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Field Blank	-	-	-	VA23C6498-007	11/1/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Field Blank	-	-	-	VA23C5771-006	10/24/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Field Blank	-	-	-	VA23C5184-006	10/20/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Field Blank	-	-	-	VA23C4458-005	10/11/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Field Blank	-	-	-	VA23C3871-005	10/4/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030

Notes:
"-" indicates parameter was not analyzed.
"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*												
						Molybdenum (Mo)-Total	Nickel (Ni)-Total	Phosphorus (P)-Total	Potassium (K)-Total	Selenium (Se)-Total	Silicon (Si)-Total	Silver (Ag)-Total	Sodium (Na)-Total	Strontium (Sr)-Total	Sulfur (S)-Total	Thallium (Tl)-Total	Tin (Sn)-Total	Titanium (Ti)-Total
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Field Blank	-	-	-	VA23C1854-004	9/13/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Field Blank	-	-	-	VA23B8906-009	8/15/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Field Blank	-	-	-	VA23B7293-002	7/25/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Field Blank	-	-	-	VA23B4330-008	6/21/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Field Blank	-	-	-	VA23B2219-006	5/30/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Field Blank	-	-	-	VA23B1379-003	5/22/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Field Blank	-	-	-	VA23B1108-006	5/17/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Field Blank	-	-	-	VA23B0222-007	5/9/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Field Blank	-	-	-	VA23A9893-005	5/4/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Field Blank	-	-	-	VA23A7852-006	4/11/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Field Blank	-	-	-	VA23A6097-006	3/20/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Field Blank	-	-	-	VA23A3035-002	2/7/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Field Blank	-	-	-	VA23A1261-004	1/17/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Travel Blank	-	-	-	VA23D0165-001	12/14/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Travel Blank	-	-	-	VA23C7190-012	11/9/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Travel Blank	-	-	-	VA23C5894-006	10/25/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Travel Blank	-	-	-	VA23C5184-007	10/20/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Travel Blank	-	-	-	VA23C5293-008	10/19/2023	0.000172	0.00050	<0.050	0.196	<0.000050	1.48	0.000013	8.12	0.00996	<0.50	0.000015	0.00018	<0.00480
Travel Blank	-	-	-	VA23C4586-007	10/14/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Travel Blank	-	-	-	VA23C4014-012	10/6/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Travel Blank	-	-	-	VA23C2546-006	9/20/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Travel Blank	-	-	-	VA23C0762-005	8/31/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Travel Blank	-	-	-	VA23B7734-008	7/31/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Travel Blank	-	-	-	VA23B4330-009	6/21/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Travel Blank	-	-	-	VA23B2224-005	5/31/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Travel Blank	-	-	-	VA23B1690-012	5/24/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Travel Blank	-	-	-	VA23B1108-007	5/17/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Travel Blank	-	-	-	VA23A9893-006	5/4/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Travel Blank	-	-	-	VA23A9322-002	4/28/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Travel Blank	-	-	-	VA23A6844-009	3/28/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Travel Blank	-	-	-	VA23A4552-003	2/28/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030
Travel Blank	-	-	-	VA23A1890-005	1/25/2023	<0.000050	<0.00050	<0.050	<0.100	<0.000050	<0.10	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030

Notes:
"-" indicates parameter was not analyzed.
"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*			Dissolved Metals									
						Uranium (U)-Total	Vanadium (V)-Total	Zinc (Zn)-Total	Aluminum (Al)-Dissolved	Antimony (Sb)-Dissolved	Arsenic (As)-Dissolved	Barium (Ba)-Dissolved	Beryllium (Be)-Dissolved	Bismuth (Bi)-Dissolved	Boron (B)-Dissolved	Cadmium (Cd)-Dissolved	Calcium (Ca)-Dissolved	Chromium (Cr)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23C6622-009	11/2/2023	0.000018	<0.00050	<0.0030	0.0018	<0.00010	0.00036	0.01	<0.000020	<0.000050	<0.010	<0.0000050	21.2	<0.00050
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23C6622-008	11/2/2023	0.000018	<0.00050	<0.0030	0.0015	<0.00010	0.00037	0.0101	<0.000020	<0.000050	<0.010	<0.0000050	20.9	<0.00050
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23C6622-007	11/2/2023	0.000019	<0.00050	<0.0030	0.0015	<0.00010	0.00037	0.00988	<0.000020	<0.000050	<0.010	<0.0000050	21.5	<0.00050
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23C1854-001	9/13/2023	0.000016	<0.00050	<0.0030	<0.0010	<0.00010	0.0004	0.00917	<0.000020	<0.000050	<0.010	<0.0000050	20.5	<0.00050
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23C1854-002	9/13/2023	0.000016	<0.00050	<0.0030	<0.0010	<0.00010	0.0004	0.00924	<0.000020	<0.000050	<0.010	<0.0000050	20.5	<0.00050
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23C1854-003	9/13/2023	0.000018	<0.00050	<0.0030	<0.0010	<0.00010	0.00041	0.00954	<0.000020	<0.000050	<0.010	<0.0000050	20.4	<0.00050
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23B2052-008	5/29/2023	0.000018	<0.00050	<0.0030	0.0013	<0.00010	0.00035	0.00889	<0.000020	<0.000050	<0.010	<0.0000050	20.8	<0.00050
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23B2052-007	5/29/2023	0.000017	<0.00050	<0.0030	0.0014	<0.00010	0.00033	0.0085	<0.000020	<0.000050	<0.010	<0.0000050	20.2	<0.00050
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23B2052-006	5/29/2023	0.000017	<0.00050	0.0038	0.0017	<0.00010	0.00036	0.0124	<0.000020	<0.000050	<0.010	<0.0000050	21.1	<0.00050
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23A3692-003	2/15/2023	0.000018	<0.00050	<0.0030	<0.0010	<0.00010	0.00036	0.00976	<0.000020	<0.000050	<0.010	<0.0000050	18.6	<0.00050
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23A3692-002	2/15/2023	0.000016	<0.00050	<0.0030	<0.0010	<0.00010	0.00031	0.00961	<0.000020	<0.000050	<0.010	<0.0000050	19.1	<0.00050
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23A3692-001	2/15/2023	0.000019	<0.00050	<0.0030	<0.0010	<0.00010	0.00042	0.014	<0.000020	<0.000050	<0.010	<0.0000050	19.8	<0.00050
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23C5293-003	10/19/2023	0.000103	<0.00050	<0.0030	0.002	<0.00010	0.00052	0.00602	<0.000020	<0.000050	<0.010	<0.0000050	20.3	<0.00050
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23C5293-002	10/19/2023	0.0001	<0.00050	<0.0030	0.0019	<0.00010	0.00056	0.00608	<0.000020	<0.000050	<0.010	<0.0000050	20.1	<0.00050
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23C5293-001	10/19/2023	0.000092	<0.00050	<0.0030	0.0017	<0.00010	0.00064	0.00458	<0.000020	<0.000050	<0.010	<0.0000050	19.7	<0.00050
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23C0266-003	8/28/2023	0.000097	<0.00050	<0.0030	0.0025	<0.00010	0.00045	0.0058	<0.000020	<0.000050	<0.010	<0.0000050	18.9	<0.00050
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23C0266-002	8/28/2023	0.000091	<0.00050	<0.0030	0.001	<0.00010	0.00061	0.00514	<0.000020	<0.000050	<0.010	<0.0000050	18.6	<0.00050
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23C0266-001	8/28/2023	0.000097	<0.00050	<0.0030	0.0016	<0.00010	0.00071	0.00356	<0.000020	<0.000050	<0.010	<0.0000050	19.7	<0.00050
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23B1690-011	5/24/2023	0.000085	<0.00050	<0.0030	0.0046	<0.00010	0.00051	0.00508	<0.000020	<0.000050	<0.010	<0.0000050	17.5	<0.00050
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23B1690-010	5/24/2023	0.000088	<0.00050	<0.0030	0.0034	<0.00010	0.00048	0.0052	<0.000020	<0.000050	<0.010	<0.0000050	17.7	<0.00050
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23B1690-009	5/24/2023	0.000092	<0.00050	<0.0030	<0.0010	<0.00010	0.0005	0.00541	<0.000020	<0.000050	<0.010	<0.0000050	19.3	<0.00050
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23A3177-007	2/8/2023	0.000088	<0.00050	<0.0030	<0.0010	<0.00010	0.00054	0.00528	<0.000020	<0.000050	<0.010	<0.0000050	18.4	<0.00050
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23A3177-006	2/8/2023	0.000087	<0.00050	<0.0030	<0.0010	<0.00010	0.00056	0.00514	<0.000020	<0.000050	<0.010	<0.0000050	18	<0.00050
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23A3177-005	2/8/2023	0.000093	<0.00050	<0.0030	<0.0010	<0.00010	0.00056	0.0059	<0.000020	<0.000050	<0.010	<0.0000050	18.4	<0.00050
Davidson Creek	DC-05	Surface	Primary	VA23D0155-002	12/15/2023	0.000205	0.00062	<0.0030	0.0301	<0.00010	0.00055	0.00746	<0.000020	<0.000050	<0.010	<0.0000050	10.6	<0.00050
Davidson Creek	DC-05	Surface	Primary	VA23C7190-002	11/8/2023	0.000197	0.00094	<0.0030	0.0599	<0.00010	0.00053	0.00683	<0.000020	<0.000050	<0.010	<0.0000050	9.27	<0.00050
Davidson Creek	DC-05	Surface	Primary	VA23C6383-003	10/31/2023	0.000223	0.00053	<0.0030	0.03	<0.00010	0.00055	0.00813	<0.000020	<0.000050	<0.010	<0.0000050	12.3	<0.00050
Davidson Creek	DC-05	Surface	Primary	VA23C5894-001	10/25/2023	0.000212	0.00064	<0.0030	0.042	<0.00010	0.00058	0.00896	<0.000020	<0.000050	<0.010	<0.0000050	13.3	<0.00050
Davidson Creek	DC-05	Surface	Primary	VA23C4858-003	10/16/2023	0.000194	<0.00050	<0.0030	0.029	<0.00010	0.00067	0.0091	<0.000020	<0.000050	<0.010	<0.0000050	12.6	<0.00050
Davidson Creek	DC-05	Surface	Primary	VA23C4586-001	10/14/2023	0.000209	0.00054	<0.0030	0.0293	<0.00010	0.00068	0.00851	<0.000020	<0.000050	<0.010	<0.0000050	12	<0.00050
Davidson Creek	DC-05	Surface	Duplicate	VA23C4586-002	10/14/2023	0.000208	0.00054	<0.0030	0.0328	<0.00010	0.00062	0.0083	<0.000020	<0.000050	<0.010	<0.0000050	11.6	<0.00050
Davidson Creek	DC-05	Surface	Primary	VA23C4014-002	10/5/2023	0.000191	0.00103	<0.0030	0.054	<0.00010	0.00067	0.00809	<0.000020	<0.000050	<0.010	<0.0000050	11.2	<0.00050
Davidson Creek	DC-05	Surface	Primary	VA23C0875-003	9/4/2023	0.000165	<0.00050	<0.0030	0.025	<0.00010	0.00066	0.00794	<0.000020	<0.000050	<0.010	<0.0000050	10.6	<0.00050
Davidson Creek	DC-05	Surface	Primary	VA23B9219-002	8/16/2023	0.000146	0.00071	<0.0030	0.0373	<0.00010	0.00083	0.00853	<0.000020	<0.000050	<0.010	<0.0000050	9.18	<0.00050
Davidson Creek	DC-05	Surface	Primary	VA23B7293-008	7/25/2023	0.000111	0.00058	<0.0030	0.0678	<0.00010	0.00063	0.0108	<0.000020	<0.000050	<0.010	<0.0000050	10.1	<0.00050
Davidson Creek	DC-05	Surface	Primary	VA23B4181-003	6/21/2023	0.000152	0.00055	<0.0030	0.0806	<0.00010	0.00057	0.00524	0.000024	<0.000050	<0.010	<0.0000050	6.94	<0.00050
Davidson Creek	DC-05	Surface	Primary	VA23B2052-005	5/29/2023	0.000164	0.00062	<0.0030	0.083	<0.00010	0.00048	0.00436	<0.000020	<0.000050	<0.010	<0.0000050	5.29	<0.00050
Davidson Creek	DC-05	Surface	Primary	VA23B1529-005	5/23/2023	0.000182	0.00058	<0.0030	0.129	<0.00010	0.00047	0.00395	0.000028	<0.000050	<0.010	<0.0000050	3.96	<0.00050
Davidson Creek	DC-05	Surface	Primary	VA23B0766-010	5/16/2023	0.000194	0.00064	<0.0030	0.176	<0.00010	0.00042	0.00392	0.000034	<0.000050	<0.010	0.0000053	3.07	<0.00050
Davidson Creek	DC-05	Surface	Primary	VA23B0222-006	5/9/2023	0.000178	0.00108	<0.0030	0.273	<0.00010	0.00043	0.00572	0.000034	<0.000050	<0.010	0.0000089	3.58	<0.00050
Davidson Creek	DC-05	Surface	Primary	VA23A9893-002	5/4/2023	0.000203	0.00127	0.0034	0.337	<0.00010	0.00057	0.00715	0.000045	<0.000050	<0.010	0.0000132	4.77	<0.00050
Davidson Creek	DC-05	Surface	Primary	VA23A7852-002	4/11/2023	0.000378	<0.00050	<0.0030	0.0093	<0.00010	0.00056	0.00779	<0.000020	<0.000050	<0.010	<0.0000050	15.6	<0.00050
Davidson Creek	DC-05	Surface	Primary	VA23A5627-002	3/14/2023	0.000398	<0.00050	<0.0030	0.0084	<0.00010	0.00055	0.00817	<0.000020	<0.000050	<0.010	<0.0000050	16.5	<0.00050
Davidson Creek	DC-05	Surface	Primary	VA23A2861-004	2/6/2023	0.000335	<0.00050	<0.0030	0.0098	<0.00010	0.00051	0.0073	<0.000020	<0.000050	<0.010	<0.0000050	14.7	<0.00050
Davidson Creek	DC-05	Surface	Primary	VA23A1261-002	1/17/2023	0.000348	<0.00050	<0.0030	0.008	<0.00010	0.00052	0.00752	<0.000020	<0.000050	<0.010	<0.0000050	14.7	<0.00050
Davidson Creek	DC-05	Surface	Duplicate	VA23A1261-005	1/17/2023	0.00035	<0.00050	<0.0030	0.0089	<0.00010	0.00053	0.00786	<0.000020	<0.000050	<0.010	<0.0000050	14.8	<0.00050

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*			Dissolved Metals									
						Uranium (U)-Total	Vanadium (V)-Total	Zinc (Zn)-Total	Aluminum (Al)-Dissolved	Antimony (Sb)-Dissolved	Arsenic (As)-Dissolved	Barium (Ba)-Dissolved	Beryllium (Be)-Dissolved	Bismuth (Bi)-Dissolved	Boron (B)-Dissolved	Cadmium (Cd)-Dissolved	Calcium (Ca)-Dissolved	Chromium (Cr)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Davidson Creek	DC-10	Surface	Primary	VA23D0155-003	12/15/2023	0.00019	0.00058	<0.0030	0.0267	<0.00010	0.00053	0.00754	<0.000020	<0.000050	<0.010	<0.0000050	10.8	<0.00050
Davidson Creek	DC-10	Surface	Duplicate	VA23D0155-004	12/15/2023	0.00019	0.00057	<0.0030	0.0296	<0.00010	0.00053	0.0077	<0.000020	<0.000050	<0.010	<0.0000050	11	<0.00050
Davidson Creek	DC-10	Surface	Primary	VA23C7190-003	11/8/2023	0.000161	0.00091	<0.0030	0.0506	<0.00010	0.00054	0.00694	<0.000020	<0.000050	<0.010	<0.0000050	10.1	<0.00050
Davidson Creek	DC-10	Surface	Primary	VA23C4014-003	10/5/2023	0.000168	0.00069	<0.0030	0.0352	<0.00010	0.00063	0.00839	<0.000020	<0.000050	<0.010	<0.0000050	11.8	<0.00050
Davidson Creek	DC-10	Surface	Primary	VA23C2388-003	9/19/2023	0.000179	<0.00050	<0.0030	0.0168	<0.00010	0.00058	0.00837	<0.000020	<0.000050	<0.010	<0.0000050	12.6	<0.00050
Davidson Creek	DC-10	Surface	Primary	VA23B9219-003	8/16/2023	0.000128	0.00063	<0.0030	0.0338	<0.00010	0.00075	0.00873	<0.000020	<0.000050	<0.010	<0.0000050	10.2	<0.00050
Davidson Creek	DC-10	Surface	Primary	VA23B7293-007	7/25/2023	0.000113	0.00063	<0.0030	0.058	<0.00010	0.00061	0.01	<0.000020	<0.000050	<0.010	<0.0000050	10.1	<0.00050
Davidson Creek	DC-10	Surface	Primary	VA23B4181-004	6/21/2023	0.000144	0.0006	<0.0030	0.0673	<0.00010	0.00049	0.00504	<0.000020	<0.000050	<0.010	<0.0000050	7	<0.00050
Davidson Creek	DC-10	Surface	Primary	VA23A9893-003	5/4/2023	0.000206	0.00119	0.0034	0.33	<0.00010	0.00056	0.00694	0.000035	<0.000050	<0.010	0.0000166	4.81	<0.00050
Davidson Creek	DC-10	Surface	Primary	VA23A7852-003	4/11/2023	0.000396	<0.00050	<0.0030	0.0088	<0.00010	0.00055	0.00804	<0.000020	<0.000050	<0.010	<0.0000050	15.4	<0.00050
Davidson Creek	DC-10	Surface	Primary	VA23A5627-003	3/14/2023	0.000387	<0.00050	<0.0030	0.0135	<0.00010	0.00054	0.00818	<0.000020	<0.000050	<0.010	<0.0000050	16.4	<0.00050
Davidson Creek	DC-10	Surface	Primary	VA23A2861-005	2/6/2023	0.000342	<0.00050	<0.0030	0.0092	<0.00010	0.00049	0.00795	<0.000020	<0.000050	<0.010	<0.0000050	15.2	<0.00050
Davidson Creek	DC-10	Surface	Duplicate	VA23A2861-006	2/6/2023	0.000344	<0.00050	<0.0030	0.0091	<0.00010	0.00052	0.00779	<0.000020	<0.000050	<0.010	<0.0000050	15	<0.00050
Davidson Creek	DC-10	Surface	Primary	VA23A1261-003	1/17/2023	0.000355	<0.00050	<0.0030	0.0082	<0.00010	0.00052	0.00822	<0.000020	<0.000050	<0.010	<0.0000050	14.9	<0.00050
Davidson Creek	DC-15	Surface	Primary	VA23D0155-005	12/15/2023	0.000175	0.0005	<0.0030	0.0157	<0.00010	0.0005	0.0081	<0.000020	<0.000050	<0.010	<0.0000050	13.3	<0.00050
Davidson Creek	DC-15	Surface	Primary	VA23C7190-004	11/8/2023	0.000142	0.00064	<0.0030	0.0412	<0.00010	0.00054	0.00771	<0.000020	<0.000050	<0.010	<0.0000050	11.9	<0.00050
Davidson Creek	DC-15	Surface	Primary	VA23C4279-006	10/10/2023	0.000171	<0.00050	<0.0030	0.0148	<0.00010	0.00061	0.00898	<0.000020	<0.000050	<0.010	<0.0000050	14.1	<0.00050
Davidson Creek	DC-15	Surface	Primary	VA23C2388-004	9/19/2023	0.000148	<0.00050	<0.0030	0.011	<0.00010	0.00058	0.00876	<0.000020	<0.000050	<0.010	<0.0000050	14.2	<0.00050
Davidson Creek	DC-15	Surface	Primary	VA23B9219-004	8/16/2023	0.0001	0.0006	<0.0030	0.0216	<0.00010	0.00066	0.00836	<0.000020	<0.000050	<0.010	<0.0000050	12	<0.00050
Davidson Creek	DC-15	Surface	Primary	VA23B7293-006	7/25/2023	0.000131	0.00094	<0.0030	0.0432	<0.00010	0.0006	0.00793	<0.000020	<0.000050	<0.010	<0.0000050	10.5	<0.00050
Davidson Creek	DC-15	Surface	Duplicate	VA23B7293-011	7/25/2023	0.00013	0.00091	<0.0030	0.0414	<0.00010	0.00058	0.00832	<0.000020	<0.000050	<0.010	<0.0000050	10.5	<0.00050
Davidson Creek	DC-15	Surface	Primary	VA23B4181-005	6/21/2023	0.00011	0.00056	<0.0030	0.0395	<0.00010	0.00053	0.00537	<0.000020	<0.000050	<0.010	<0.0000050	8.76	<0.00050
Davidson Creek	DC-15	Surface	Primary	VA23A9893-004	5/4/2023	0.000246	0.00141	<0.0030	0.291	<0.00010	0.00057	0.00683	0.000037	<0.000050	<0.010	0.0000101	5.77	<0.00050
Davidson Creek	DC-15	Surface	Primary	VA23A9076-001	4/25/2023	0.000257	0.00052	<0.0030	0.0082	<0.00010	0.00049	0.00909	<0.000020	<0.000050	<0.010	<0.0000050	16.7	<0.00050
Davidson Creek	DC-15	Surface	Primary	VA23A5821-002	3/15/2023	0.000314	<0.00050	<0.0030	0.0047	<0.00010	0.00053	0.00865	<0.000020	<0.000050	<0.010	<0.0000050	16.9	<0.00050
Davidson Creek	DC-15	Surface	Primary	VA23A2670-003	2/4/2023	0.000289	<0.00050	<0.0030	0.0054	<0.00010	0.00054	0.00876	<0.000020	<0.000050	<0.010	<0.0000050	15.7	<0.00050
Davidson Creek	DC-15	Surface	Duplicate	VA23A2670-004	2/4/2023	0.000291	<0.00050	<0.0030	0.0051	<0.00010	0.00055	0.00848	<0.000020	<0.000050	<0.010	<0.0000050	16.2	<0.00050
Davidson Creek	DC-15	Surface	Primary	VA23A1491-004	1/19/2023	0.000308	<0.00050	<0.0030	0.0066	<0.00010	0.00052	0.00862	<0.000020	<0.000050	<0.010	<0.0000050	17.2	<0.00050
Davidson Creek	DC-20	Surface	Primary	VA23C9626-004	12/6/2023	0.00016	0.00058	<0.0030	0.0196	<0.00010	0.00041	0.00774	<0.000020	<0.000050	<0.010	<0.0000050	12.7	<0.00050
Davidson Creek	DC-20	Surface	Primary	VA23C6498-006	11/1/2023	0.000209	<0.00050	<0.0030	0.0077	<0.00010	0.00041	0.00841	<0.000020	<0.000050	<0.010	<0.0000050	13.7	<0.00050
Davidson Creek	DC-20	Surface	Primary	VA23C5771-005	10/24/2023	0.000178	0.00064	<0.0030	0.01	<0.00010	0.00048	0.00749	<0.000020	<0.000050	<0.010	<0.0000050	13.7	<0.00050
Davidson Creek	DC-20	Surface	Primary	VA23C5184-002	10/20/2023	0.000152	0.00051	<0.0030	0.008	<0.00010	0.00059	0.00936	<0.000020	<0.000050	<0.010	<0.0000050	15.3	<0.00050
Davidson Creek	DC-20	Surface	Duplicate	VA23C5184-003	10/20/2023	0.000146	<0.00050	<0.0030	0.0089	<0.00010	0.00059	0.00922	<0.000020	<0.000050	<0.010	<0.0000050	14.8	<0.00050
Davidson Creek	DC-20	Surface	Primary	VA23C4458-004	10/11/2023	0.000152	0.00056	<0.0030	0.0093	<0.00010	0.00061	0.00927	<0.000020	<0.000050	<0.010	<0.0000050	14.8	<0.00050
Davidson Creek	DC-20	Surface	Primary	VA23C3871-006	10/4/2023	0.000129	0.00051	<0.0030	0.0082	<0.00010	0.00063	0.00883	<0.000020	<0.000050	<0.010	<0.0000050	14.3	<0.00050
Davidson Creek	DC-20	Surface	Primary	VA23C2546-001	9/20/2023	0.000132	0.0005	<0.0030	0.009	<0.00010	0.00065	0.00901	<0.000020	<0.000050	<0.010	<0.0000050	14.9	<0.00050
Davidson Creek	DC-20	Surface	Duplicate	VA23C2546-002	9/20/2023	0.000131	0.0005	<0.0030	0.009	<0.00010	0.00066	0.00932	<0.000020	<0.000050	<0.010	<0.0000050	14.9	<0.00050
Davidson Creek	DC-20	Surface	Primary	VA23B9723-001	8/22/2023	0.000112	0.00069	<0.0030	0.0139	<0.00010	0.00074	0.00923	<0.000020	<0.000050	<0.010	<0.0000050	13.1	<0.00050
Davidson Creek	DC-20	Surface	Primary	VA23B7734-005	7/31/2023	0.000096	0.0007	<0.0030	0.0204	<0.00010	0.00061	0.00843	<0.000020	<0.000050	<0.010	<0.0000050	11.7	<0.00050
Davidson Creek	DC-20	Surface	Primary	VA23B2847-003	6/6/2023	0.000099	0.0006	<0.0030	0.0243	<0.00010	0.00048	0.00592	<0.000020	<0.000050	<0.010	<0.0000050	8.83	<0.00050
Davidson Creek	DC-20	Surface	Primary	VA23B2219-004	5/30/2023	0.00013	0.00079	<0.0030	0.0386	<0.00010	0.00054	0.00528	<0.000020	<0.000050	<0.010	<0.0000050	7.2	<0.00050
Davidson Creek	DC-20	Surface	Primary	VA23B1690-002	5/24/2023	0.000158	0.00073	<0.0030	0.0659	<0.00010	0.00042	0.00456	<0.000020	<0.000050	<0.010	<0.0000050	5.94	<0.00050
Davidson Creek	DC-20	Surface	Primary	VA23B1108-005	5/17/2023	0.000196	0.00101	<0.0030	0.116	<0.00010	0.00044	0.00392	0.000028	<0.000050	<0.010	<0.0000050	4.34	<0.00050
Davidson Creek	DC-20	Surface	Primary	VA23B0508-005	5/11/2023	0.0002	0.0012	<0.0030	0.144	<0.00010	0.00041	0.00463	0.000023	<0.000050	<0.010	0.0000052	4.79	<0.00050
Davidson Creek	DC-20	Surface	Primary	VA23A9782-004	5/3/2023	0.000225	0.00206	0.0033	0.134	<0.00010	0.00056	0.007	<0.000020	<0.000050	<0.010	0.0000079	7.91	<0.00050
Davidson Creek	DC-20	Surface	Primary	VA23A9207-003	4/26/2023	0.000266	0.00093	<0.0030	0.0139	<0.00010	0.00044	0.00868	<0.000020	<0.000050	<0.010	<0.0000050	14.5	<0.00050

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*			Dissolved Metals									
						Uranium (U)-Total	Vanadium (V)-Total	Zinc (Zn)-Total	Aluminum (Al)-Dissolved	Antimony (Sb)-Dissolved	Arsenic (As)-Dissolved	Barium (Ba)-Dissolved	Beryllium (Be)-Dissolved	Bismuth (Bi)-Dissolved	Boron (B)-Dissolved	Cadmium (Cd)-Dissolved	Calcium (Ca)-Dissolved	Chromium (Cr)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Davidson Creek	DC-20	Surface	Primary	VA23A6097-005	3/20/2023	0.000355	<0.00050	<0.0030	0.0046	<0.00010	0.00038	0.00942	<0.000020	<0.000050	<0.010	<0.0000050	18	<0.00050
Davidson Creek	DC-20	Surface	Primary	VA23A3560-002	2/14/2023	0.000347	0.00064	<0.0030	0.0048	<0.00010	0.0004	0.00847	<0.000020	<0.000050	<0.010	<0.0000050	16.4	<0.00050
Davidson Creek	DC-20	Surface	Primary	VA23A1889-001	1/24/2023	0.000327	0.00101	0.0071	0.006	0.00012	0.00038	0.00959	<0.000020	<0.000050	<0.010	0.0000057	18.1	<0.00050
Turtle Creek	TC-01	Surface	Primary	VA23D0165-002	12/14/2023	0.000161	0.0006	<0.0030	<0.0010	<0.00010	0.00063	0.0102	<0.000020	<0.000050	<0.010	<0.0000050	33.6	<0.00050
Turtle Creek	TC-01	Surface	Primary	VA23C6880-003	11/6/2023	0.000138	0.00054	<0.0030	<0.0010	<0.00010	0.00059	0.00929	<0.000020	<0.000050	<0.010	<0.0000050	30.8	<0.00050
Turtle Creek	TC-01	Surface	Primary	VA23C4014-009	10/6/2023	0.000166	0.00056	<0.0030	<0.0010	<0.00010	0.00064	0.00976	<0.000020	<0.000050	<0.010	<0.0000050	31.8	<0.00050
Turtle Creek	TC-01	Surface	Primary	VA23C1674-003	9/12/2023	0.00017	0.00076	<0.0030	0.002	<0.00010	0.00075	0.0105	<0.000020	<0.000050	<0.010	<0.0000050	30.4	<0.00050
Turtle Creek	TC-01	Surface	Primary	VA23B8906-007	8/15/2023	0.000217	0.00075	<0.0030	0.0025	<0.00010	0.00078	0.0103	<0.000020	<0.000050	<0.010	<0.0000050	31.6	<0.00050
Turtle Creek	TC-01	Surface	Primary	VA23B7523-005	7/27/2023	0.000214	0.0008	<0.0030	0.004	<0.00010	0.00065	0.00928	<0.000020	<0.000050	<0.010	<0.0000050	30.4	<0.00050
Turtle Creek	TC-01	Surface	Primary	VA23B4330-002	6/21/2023	0.00023	0.00078	<0.0030	0.0022	<0.00010	0.00064	0.00921	<0.000020	<0.000050	<0.010	<0.0000050	31.3	<0.00050
Turtle Creek	TC-01	Surface	Duplicate	VA23B4330-007	6/21/2023	0.000222	0.00079	<0.0030	0.0024	<0.00010	0.00065	0.00909	<0.000020	<0.000050	<0.010	<0.0000050	30.5	<0.00050
Turtle Creek	TC-01	Surface	Primary	VA23A9638-003	5/2/2023	0.000153	0.00067	<0.0030	0.0011	<0.00010	0.00073	0.00844	<0.000020	<0.000050	<0.010	<0.0000050	29.1	<0.00050
Turtle Creek	TC-01	Surface	Primary	VA23A8158-004	4/13/2023	0.000166	0.00057	<0.0030	0.0016	<0.00010	0.0006	0.00823	<0.000020	<0.000050	<0.010	<0.0000050	32.1	<0.00050
Turtle Creek	TC-01	Surface	Primary	VA23A5821-003	3/15/2023	0.000174	0.00054	<0.0030	0.001	<0.00010	0.00064	0.00873	<0.000020	<0.000050	<0.010	<0.0000050	32	<0.00050
Turtle Creek	TC-01	Surface	Primary	VA23A3268-003	2/10/2023	0.000432	0.00169	<0.0030	<0.0010	<0.00010	0.00058	0.00903	<0.000020	<0.000050	<0.010	<0.0000050	30	<0.00050
Turtle Creek	TC-01	Surface	Primary	VA23A1491-001	1/19/2023	0.000329	0.00102	<0.0030	<0.0010	<0.00010	0.00053	0.00946	<0.000020	<0.000050	<0.010	<0.0000050	33.2	<0.00050
Turtle Creek	TC-05	Surface	Primary	VA23D0165-003	12/14/2023	0.000333	<0.00050	0.0047	0.0041	<0.00010	0.00032	0.0124	<0.000020	<0.000050	<0.010	<0.0000050	30.6	<0.00050
Turtle Creek	TC-05	Surface	Primary	VA23C6880-004	11/6/2023	0.000295	<0.00050	<0.0030	0.0069	<0.00010	0.00033	0.0108	<0.000020	<0.000050	<0.010	<0.0000050	27.7	<0.00050
Turtle Creek	TC-05	Surface	Primary	VA23C4458-006	10/11/2023	0.000259	<0.00050	0.0034	0.0082	<0.00010	0.00045	0.0123	<0.000020	<0.000050	<0.010	<0.0000050	28.4	<0.00050
Turtle Creek	TC-05	Surface	Primary	VA23C1674-004	9/12/2023	0.000223	0.00063	<0.0030	0.0084	<0.00010	0.00051	0.0122	<0.000020	<0.000050	<0.010	<0.0000050	27.7	<0.00050
Turtle Creek	TC-05	Surface	Duplicate	VA23C1674-006	9/12/2023	0.000223	0.00057	<0.0030	0.0083	<0.00010	0.00052	0.0123	<0.000020	<0.000050	<0.010	<0.0000050	26.8	<0.00050
Turtle Creek	TC-05	Surface	Primary	VA23B8906-008	8/15/2023	0.000189	0.00063	<0.0030	0.0127	<0.00010	0.00073	0.0133	<0.000020	<0.000050	<0.010	<0.0000050	27.5	<0.00050
Turtle Creek	TC-05	Surface	Primary	VA23B4330-003	6/21/2023	0.00023	0.00067	<0.0030	0.0123	<0.00010	0.00048	0.0112	<0.000020	<0.000050	<0.010	<0.0000050	26.3	<0.00050
Turtle Creek	TC-05	Surface	Primary	VA23B0364-005	5/10/2023	0.000215	0.00151	0.0039	0.231	<0.00010	0.00028	0.0061	0.000032	<0.000050	<0.010	<0.0000050	8.85	<0.00050
Turtle Creek	TC-05	Surface	Primary	VA23A7852-004	4/11/2023	0.000393	0.00051	<0.0030	0.0062	<0.00010	0.0004	0.0116	<0.000020	<0.000050	<0.010	<0.0000050	29.2	<0.00050
Turtle Creek	TC-05	Surface	Primary	VA23A5821-004	3/15/2023	0.000363	<0.00050	<0.0030	0.004	<0.00010	0.00039	0.0115	<0.000020	<0.000050	<0.010	<0.0000050	29.7	<0.00050
Turtle Creek	TC-05	Surface	Primary	VA23A3268-002	2/10/2023	0.000344	<0.00050	<0.0030	0.0053	<0.00010	0.00036	0.0108	<0.000020	<0.000050	<0.010	<0.0000050	28.2	<0.00050
Turtle Creek	TC-05	Surface	Primary	VA23A1491-002	1/19/2023	0.000331	<0.00050	<0.0030	0.0063	<0.00010	0.00038	0.0118	<0.000020	<0.000050	<0.010	<0.0000050	30.3	<0.00050
Turtle Creek	TC-10	Surface	Primary	VA23D0165-004	12/14/2023	0.000267	<0.00050	<0.0030	0.0033	<0.00010	0.00029	0.0148	<0.000020	<0.000050	<0.010	<0.0000050	32.2	<0.00050
Turtle Creek	TC-10	Surface	Duplicate	VA23D0165-005	12/14/2023	0.000263	<0.00050	<0.0030	0.0032	<0.00010	0.00027	0.0147	<0.000020	<0.000050	<0.010	<0.0000050	31.5	<0.00050
Turtle Creek	TC-10	Surface	Primary	VA23C6880-005	11/6/2023	0.000239	<0.00050	<0.0030	0.0035	<0.00010	0.00033	0.0124	<0.000020	<0.000050	<0.010	<0.0000050	29.5	<0.00050
Turtle Creek	TC-10	Surface	Primary	VA23C4014-010	10/6/2023	0.000149	<0.00050	<0.0030	0.0032	<0.00010	0.00044	0.013	<0.000020	<0.000050	<0.010	<0.0000050	30.9	<0.00050
Turtle Creek	TC-10	Surface	Primary	VA23C1674-005	9/12/2023	0.000174	<0.00050	<0.0030	0.0052	<0.00010	0.00051	0.0144	<0.000020	<0.000050	<0.010	<0.0000050	30.3	<0.00050
Turtle Creek	TC-10	Surface	Primary	VA23C0266-005	8/28/2023	0.000167	<0.00050	<0.0030	0.0047	<0.00010	0.00063	0.0142	<0.000020	<0.000050	<0.010	<0.0000050	29.7	<0.00050
Turtle Creek	TC-10	Surface	Primary	VA23B7293-012	7/25/2023	0.000166	<0.00050	<0.0030	0.0056	<0.00010	0.00064	0.0137	<0.000020	<0.000050	<0.010	<0.0000050	30	<0.00050
Turtle Creek	TC-10	Surface	Primary	VA23B4330-004	6/21/2023	0.000151	<0.00050	<0.0030	0.006	<0.00010	0.00049	0.0113	<0.000020	<0.000050	<0.010	<0.0000050	28.4	<0.00050
Turtle Creek	TC-10	Surface	Primary	VA23A9638-004	5/2/2023	0.00012	0.0013	<0.0030	0.131	<0.00010	0.00043	0.00935	<0.000020	<0.000050	<0.010	<0.0000050	13.2	<0.00050
Turtle Creek	TC-10	Surface	Primary	VA23A7852-005	4/11/2023	0.000364	<0.00050	<0.0030	0.0048	<0.00010	0.00042	0.0123	<0.000020	<0.000050	<0.010	<0.0000050	30.1	<0.00050
Turtle Creek	TC-10	Surface	Primary	VA23A5627-004	3/14/2023	0.000369	<0.00050	<0.0030	0.0026	<0.00010	0.00028	0.0126	<0.000020	<0.000050	<0.010	<0.0000050	32.2	<0.00050
Turtle Creek	TC-10	Surface	Primary	VA23A3268-001	2/10/2023	0.000323	<0.00050	<0.0030	0.0032	<0.00010	0.00032	0.0121	<0.000020	<0.000050	<0.010	<0.0000050	29	<0.00050
Turtle Creek	TC-10	Surface	Primary	VA23A1111-001	1/16/2023	0.000315	<0.00050	<0.0030	0.0039	<0.00010	0.00036	0.0128	<0.000020	<0.000050	<0.010	<0.0000050	30.2	<0.00050
Turtle Creek	TC-15	Surface	Primary	VA23C6880-006	11/6/2023	0.000143	<0.00050	<0.0030	0.0025	<0.00010	0.00023	0.01	<0.000020	<0.000050	<0.010	<0.0000050	25.1	<0.00050
Turtle Creek	TC-15	Surface	Primary	VA23C4014-011	10/6/2023	0.000143	<0.00050	<0.0030	0.0018	<0.00010	0.00033	0.0118	<0.000020	<0.000050	<0.010	<0.0000050	27.6	<0.00050
Turtle Creek	TC-15	Surface	Primary	VA23C0266-004	8/28/2023	0.000193	<0.00050	0.0136	0.0038	<0.00010	0.00043	0.0146	<0.000020	<0.000050	<0.010	<0.0000050	28.4	<0.00050
Turtle Creek	TC-15	Surface	Primary	VA23B7523-006	7/27/2023	0.000116	<0.00050	<0.0030	0.0041	<0.00010	0.00039	0.012	<0.000020	<0.000050	<0.010	<0.0000050	29.2	<0.00050
Turtle Creek	TC-15	Surface	Primary	VA23B4330-005	6/21/2023	0.00009	<0.00050	0.063	0.0042	<0.00010	0.00035	0.0112	<0.000020	<0.000050	<0.010	<0.0000050	25.8	<0.00050

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*			Dissolved Metals									
						Uranium (U)-Total	Vanadium (V)-Total	Zinc (Zn)-Total	Aluminum (Al)-Dissolved	Antimony (Sb)-Dissolved	Arsenic (As)-Dissolved	Barium (Ba)-Dissolved	Beryllium (Be)-Dissolved	Bismuth (Bi)-Dissolved	Boron (B)-Dissolved	Cadmium (Cd)-Dissolved	Calcium (Ca)-Dissolved	Chromium (Cr)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Turtle Creek	TC-15	Surface	Primary	VA23A9638-005	5/2/2023	0.000091	<0.00050	<0.0030	0.0326	<0.00010	0.00041	0.00989	<0.000020	<0.000050	<0.010	<0.0000050	15.8	<0.00050
Turtle Creek	TC-15	Surface	Primary	VA23A9207-004	4/26/2023	0.000229	<0.00050	<0.0030	0.0076	<0.00010	0.00035	0.0109	<0.000020	<0.000050	<0.010	0.0000096	20.4	<0.00050
Creek 661	661-01	Surface	Primary	VA23C9661-001	12/7/2023	0.00002	<0.00050	<0.0030	0.0313	<0.00010	0.00038	0.003	<0.000020	<0.000050	<0.010	<0.0000050	5.02	<0.00050
Creek 661	661-01	Surface	Duplicate	VA23C9661-002	12/7/2023	0.000022	<0.00050	<0.0030	0.0305	<0.00010	0.00037	0.003	<0.000020	<0.000050	<0.010	<0.0000050	4.94	<0.00050
Creek 661	661-01	Surface	Primary	VA23C7190-008	11/9/2023	0.000022	<0.00050	<0.0030	0.0264	<0.00010	0.00028	0.00251	<0.000020	<0.000050	<0.010	<0.0000050	4.08	<0.00050
Creek 661	661-01	Surface	Primary	VA23C6383-001	10/31/2023	0.000028	<0.00050	<0.0030	0.0355	<0.00010	0.00031	0.00335	<0.000020	<0.000050	<0.010	<0.0000050	4.57	<0.00050
Creek 661	661-01	Surface	Primary	VA23C5894-003	10/25/2023	0.000027	<0.00050	<0.0030	0.0375	<0.00010	0.00033	0.00368	<0.000020	<0.000050	<0.010	<0.0000050	5.42	<0.00050
Creek 661	661-01	Surface	Primary	VA23C4858-001	10/16/2023	0.000023	<0.00050	<0.0030	0.0259	<0.00010	0.00035	0.00304	<0.000020	<0.000050	<0.010	<0.0000050	4.72	<0.00050
Creek 661	661-01	Surface	Primary	VA23C4586-003	10/14/2023	0.000025	<0.00050	<0.0030	0.0397	<0.00010	0.00042	0.00311	<0.000020	<0.000050	<0.010	<0.0000050	4.11	<0.00050
Creek 661	661-01	Surface	Primary	VA23C4014-004	10/5/2023	0.000023	<0.00050	<0.0030	0.0242	<0.00010	0.00036	0.00296	<0.000020	<0.000050	<0.010	<0.0000050	4.8	<0.00050
Creek 661	661-01	Surface	Primary	VA23C0875-002	9/4/2023	0.000024	<0.00050	<0.0030	0.027	<0.00010	0.00041	0.00255	<0.000020	<0.000050	<0.010	<0.0000050	4.26	<0.00050
Creek 661	661-01	Surface	Primary	VA23B8906-006	8/15/2023	0.000027	<0.00050	<0.0030	0.0306	<0.00010	0.00044	0.003	<0.000020	<0.000050	<0.010	<0.0000050	4.23	<0.00050
Creek 661	661-01	Surface	Primary	VA23B7523-004	7/27/2023	0.000029	<0.00050	<0.0030	0.0446	<0.00010	0.00071	0.00237	<0.000020	<0.000050	<0.010	<0.0000050	3.65	<0.00050
Creek 661	661-01	Surface	Primary	VA23B3687-001	6/14/2023	0.000034	<0.00050	<0.0030	0.0483	<0.00010	0.0005	0.00234	<0.000020	<0.000050	<0.010	<0.0000050	2.95	<0.00050
Creek 661	661-01	Surface	Primary	VA23B2847-004	6/6/2023	0.00004	<0.00050	<0.0030	0.0696	<0.00010	0.00054	0.00197	<0.000020	<0.000050	<0.010	<0.0000050	2.46	<0.00050
Creek 661	661-01	Surface	Primary	VA23B2224-001	5/31/2023	0.00005	<0.00050	<0.0030	0.0844	<0.00010	0.00055	0.00218	<0.000020	<0.000050	<0.010	<0.0000050	2.24	<0.00050
Creek 661	661-01	Surface	Primary	VA23B1379-001	5/22/2023	0.000074	<0.00050	<0.0030	0.13	<0.00010	0.00055	0.00201	0.000024	<0.000050	<0.010	<0.0000050	2.04	<0.00050
Creek 661	661-01	Surface	Duplicate	VA23B1379-002	5/22/2023	0.000069	<0.00050	<0.0030	0.132	<0.00010	0.00057	0.00214	<0.000020	<0.000050	<0.010	<0.0000050	2.05	<0.00050
Creek 661	661-01	Surface	Primary	VA23B0766-007	5/16/2023	0.000077	<0.00050	<0.0030	0.175	<0.00010	0.00055	0.00262	0.000025	<0.000050	<0.010	<0.0000050	1.85	<0.00050
Creek 661	661-01	Surface	Primary	VA23A8158-006	4/14/2023	0.000027	<0.00050	<0.0030	0.0471	<0.00010	0.00032	0.00242	<0.000020	<0.000050	<0.010	<0.0000050	2.97	<0.00050
Creek 661	661-01	Surface	Primary	VA23A6844-007	3/28/2023	0.000033	<0.00050	<0.0030	0.0581	<0.00010	0.00048	0.0025	<0.000020	<0.000050	<0.010	<0.0000050	2.92	<0.00050
Creek 661	661-01	Surface	Primary	VA23A4552-001	2/28/2023	0.000036	0.00053	<0.0030	0.0641	<0.00010	0.0005	0.00244	<0.000020	<0.000050	<0.010	<0.0000050	2.76	<0.00050
Creek 661	661-01	Surface	Primary	VA23A1264-005	1/17/2023	0.000052	<0.00050	<0.0030	0.0705	<0.00010	0.00033	0.00234	<0.000020	<0.000050	<0.010	0.0000063	2.24	<0.00050
Creek 661	661-04	Surface	Primary	VA23C9661-003	12/7/2023	0.000055	<0.00050	0.0034	0.0155	<0.00010	0.00101	0.00417	<0.000020	<0.000050	<0.010	0.0000118	11.4	<0.00050
Creek 661	661-04	Surface	Primary	VA23C7190-009	11/9/2023	0.00005	<0.00050	0.0039	0.0194	<0.00010	0.00111	0.0039	<0.000020	<0.000050	<0.010	0.0000114	9.12	<0.00050
Creek 661	661-04	Surface	Primary	VA23C6383-002	10/31/2023	0.000057	<0.00050	0.0037	0.0134	<0.00010	0.00104	0.00405	<0.000020	<0.000050	<0.010	0.0000115	10.1	<0.00050
Creek 661	661-04	Surface	Primary	VA23C5894-002	10/25/2023	0.000061	<0.00050	0.004	0.0159	<0.00010	0.00109	0.00434	<0.000020	<0.000050	<0.010	0.0000107	10.6	<0.00050
Creek 661	661-04	Surface	Primary	VA23C4858-002	10/16/2023	0.000057	<0.00050	0.0034	0.0182	<0.00010	0.00123	0.0048	<0.000020	<0.000050	<0.010	0.0000095	10.8	<0.00050
Creek 661	661-04	Surface	Primary	VA23C4586-004	10/14/2023	0.000059	<0.00050	0.0034	0.0162	<0.00010	0.00117	0.00439	<0.000020	<0.000050	<0.010	0.0000084	10	<0.00050
Creek 661	661-04	Surface	Primary	VA23C4014-005	10/5/2023	0.000054	0.00052	0.0038	0.0185	<0.00010	0.00123	0.0047	<0.000020	<0.000050	<0.010	0.0000104	10.5	<0.00050
Creek 661	661-04	Surface	Primary	VA23C1991-004	9/14/2023	0.000077	0.00052	0.0036	0.0224	<0.00010	0.00118	0.00443	<0.000020	<0.000050	<0.010	0.0000108	10.1	<0.00050
Creek 661	661-04	Surface	Primary	VA23B8906-005	8/14/2023	0.000063	0.00068	0.004	0.0284	<0.00010	0.00127	0.00536	<0.000020	<0.000050	<0.010	0.000017	9.9	<0.00050
Creek 661	661-04	Surface	Primary	VA23B3687-002	6/14/2023	0.000059	0.00063	0.0053	0.0414	<0.00010	0.00107	0.00395	<0.000020	<0.000050	<0.010	0.0000155	7.02	<0.00050
Creek 661	661-04	Surface	Duplicate	VA23B3687-003	6/14/2023	0.000061	0.00064	0.0051	0.0414	<0.00010	0.00107	0.00381	<0.000020	<0.000050	<0.010	0.0000132	7.03	<0.00050
Creek 661	661-04	Surface	Primary	VA23B2847-005	6/6/2023	0.000057	0.00058	0.0058	0.0472	<0.00010	0.00102	0.0033	<0.000020	<0.000050	<0.010	0.0000164	5.95	<0.00050
Creek 661	661-04	Surface	Primary	VA23B2224-002	5/31/2023	0.000077	0.00062	0.0072	0.0758	<0.00010	0.00087	0.00332	<0.000020	<0.000050	<0.010	0.0000128	5.31	<0.00050
Creek 661	661-04	Surface	Primary	VA23B1379-004	5/22/2023	0.000095	0.00072	0.0087	0.11	<0.00010	0.00078	0.00281	<0.000020	<0.000050	<0.010	0.000015	4.55	<0.00050
Creek 661	661-04	Surface	Primary	VA23B0766-008	5/16/2023	0.000091	0.00076	0.0095	0.163	<0.00010	0.00071	0.00274	0.000021	<0.000050	<0.010	0.0000248	3.63	<0.00050
Creek 661	661-04	Surface	Primary	VA23A8158-007	4/14/2023	0.000057	<0.00050	0.0038	0.0146	<0.00010	0.00108	0.00414	<0.000020	<0.000050	<0.010	0.00001	9.84	<0.00050
Creek 661	661-04	Surface	Primary	VA23A6844-008	3/28/2023	0.000064	0.00058	0.0036	0.0143	<0.00010	0.00113	0.00398	<0.000020	<0.000050	<0.010	0.0000091	9.96	<0.00050
Creek 661	661-04	Surface	Primary	VA23A3268-009	2/9/2023	0.000055	<0.00050	0.0035	0.0143	<0.00010	0.00105	0.00398	<0.000020	<0.000050	<0.010	0.000009	8.78	<0.00050
Creek 661	661-04	Surface	Primary	VA23A1264-004	1/17/2023	0.000081	0.00062	0.0056	0.0153	<0.00010	0.0011	0.0042	<0.000020	<0.000050	<0.010	0.000011	9.33	<0.00050
Creek 661	661-05	Surface	Primary	VA23C9238-004	12/4/2023	0.000241	0.00241	<0.0030	0.0288	<0.00010	0.00123	0.00468	<0.000020	<0.000050	<0.010	<0.0000050	12.9	0.00068
Creek 661	661-05	Surface	Primary	VA23C7190-005	11/8/2023	0.000301	0.00624	0.0103	0.0143	<0.00010	0.00111	0.00461	<0.000020	<0.000050	<0.010	<0.0000050	11.9	0.00073
Creek 661	661-05	Surface	Duplicate	VA23C7190-006	11/8/2023	0.000261	0.00566	0.0095	0.0149	<0.00010	0.00112	0.00465	<0.000020	<0.000050	<0.010	<0.0000050	12	0.00066
Creek 661	661-05	Surface	Primary	VA23C4865-004	10/16/2023	0.000192	0.00186	<0.0030	0.0103	<0.00010	0.00137	0.00467	<0.000020	<0.000050	<0.010	<0.0000050	12.9	0.00072

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*			Dissolved Metals									
						Uranium (U)-Total	Vanadium (V)-Total	Zinc (Zn)-Total	Aluminum (Al)-Dissolved	Antimony (Sb)-Dissolved	Arsenic (As)-Dissolved	Barium (Ba)-Dissolved	Beryllium (Be)-Dissolved	Bismuth (Bi)-Dissolved	Boron (B)-Dissolved	Cadmium (Cd)-Dissolved	Calcium (Ca)-Dissolved	Chromium (Cr)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Creek 661	661-05	Surface	Primary	VA23C1491-002	9/11/2023	0.000213	0.00196	<0.0030	0.0135	<0.00010	0.00131	0.0047	<0.000020	<0.000050	<0.010	<0.0000050	12.8	0.00064
Creek 661	661-05	Surface	Primary	VA23B9219-005	8/16/2023	0.00018	0.00189	<0.0030	0.027	<0.00010	0.00143	0.00493	<0.000020	<0.000050	<0.010	<0.0000050	12.1	0.00064
Creek 661	661-05	Surface	Primary	VA23B7293-010	7/25/2023	0.000123	0.00178	<0.0030	0.0303	<0.00010	0.00116	0.00453	<0.000020	<0.000050	<0.010	<0.0000050	10.6	0.00058
Creek 661	661-05	Surface	Primary	VA23B4181-001	6/21/2023	0.000126	0.00183	<0.0030	0.0403	<0.00010	0.00106	0.00446	<0.000020	<0.000050	<0.010	<0.0000050	9.73	0.00064
Creek 661	661-05	Surface	Primary	VA23B0766-005	5/15/2023	0.00016	0.00195	<0.0030	0.103	<0.00010	0.00066	0.00376	0.000022	<0.000050	<0.010	0.0000051	6.05	0.00054
Creek 661	661-05	Surface	Primary	VA23A9322-001	4/27/2023	0.000179	0.00204	<0.0030	0.0195	<0.00010	0.00101	0.00424	<0.000020	<0.000050	<0.010	<0.0000050	11	0.0006
Creek 661	661-05	Surface	Primary	VA23A5821-001	3/15/2023	0.000197	0.00184	<0.0030	0.0091	<0.00010	0.00112	0.0043	<0.000020	<0.000050	<0.010	<0.0000050	12.3	0.00075
Creek 661	661-05	Surface	Primary	VA23A2670-001	2/4/2023	0.000204	0.00201	<0.0030	0.0077	<0.00010	0.00116	0.00434	<0.000020	<0.000050	<0.010	0.0000066	11.7	0.00062
Creek 661	661-05	Surface	Primary	VA23A1491-003	1/19/2023	0.000208	0.00184	<0.0030	0.0088	<0.00010	0.00112	0.00444	<0.000020	<0.000050	<0.010	<0.0000050	12.6	0.00066
Creek 661	661-03	Surface	Primary	VA23C9238-001	12/4/2023	0.000051	<0.00050	<0.0030	0.0389	<0.00010	0.00031	0.0051	<0.000020	<0.000050	<0.010	<0.0000050	11.1	<0.00050
Creek 661	661-03	Surface	Primary	VA23C6622-002	11/2/2023	0.00006	<0.00050	<0.0030	0.0136	<0.00010	0.00025	0.00612	<0.000020	<0.000050	<0.010	<0.0000050	13.5	<0.00050
Creek 661	661-03	Surface	Primary	VA23C5577-001	10/23/2023	0.000046	<0.00050	<0.0030	0.0229	<0.00010	0.00031	0.00563	<0.000020	<0.000050	<0.010	<0.0000050	12.9	<0.00050
Creek 661	661-03	Surface	Primary	VA23C4865-003	10/16/2023	0.000095	<0.00050	<0.0030	0.0097	<0.00010	0.00025	0.00826	<0.000020	<0.000050	<0.010	<0.0000050	16.4	<0.00050
Creek 661	661-03	Surface	Primary	VA23C4279-004	10/10/2023	0.000118	<0.00050	<0.0030	0.0101	<0.00010	0.00025	0.00814	<0.000020	<0.000050	<0.010	<0.0000050	16.4	<0.00050
Creek 661	661-03	Surface	Duplicate	VA23C4279-005	10/10/2023	0.000125	<0.00050	0.0048	0.0099	<0.00010	0.00024	0.00823	<0.000020	<0.000050	<0.010	<0.0000050	16.3	<0.00050
Creek 661	661-03	Surface	Primary	VA23C3847-004	10/3/2023	0.000111	<0.00050	<0.0030	0.0112	<0.00010	0.00024	0.00805	<0.000020	<0.000050	<0.010	<0.0000050	17	<0.00050
Creek 661	661-03	Surface	Primary	VA23C1491-001	9/11/2023	0.000109	<0.00050	<0.0030	0.0139	<0.00010	0.00026	0.0085	<0.000020	<0.000050	<0.010	<0.0000050	16.3	<0.00050
Creek 661	661-03	Surface	Primary	VA23B9359-002	8/17/2023	0.00007	<0.00050	<0.0030	0.028	<0.00010	0.00035	0.00764	<0.000020	<0.000050	<0.010	<0.0000050	13.8	<0.00050
Creek 661	661-03	Surface	Primary	VA23B7293-003	7/25/2023	0.000045	<0.00050	<0.0030	0.0505	<0.00010	0.00034	0.00594	<0.000020	<0.000050	<0.010	<0.0000050	11.1	<0.00050
Creek 661	661-03	Surface	Primary	VA23B3987-002	6/19/2023	0.000074	0.00058	<0.0030	0.0514	<0.00010	0.00033	0.00567	<0.000020	<0.000050	<0.010	<0.0000050	10.6	<0.00050
Creek 661	661-03	Surface	Primary	VA23B2052-002	5/29/2023	0.00005	0.00052	0.0035	0.0777	<0.00010	0.00031	0.00461	<0.000020	<0.000050	<0.010	<0.0000050	8.33	<0.00050
Creek 661	661-03	Surface	Primary	VA23B1529-001	5/23/2023	0.000048	0.0005	<0.0030	0.0872	<0.00010	0.0003	0.00427	<0.000020	<0.000050	<0.010	<0.0000050	7.06	<0.00050
Creek 661	661-03	Surface	Primary	VA23B0766-004	5/15/2023	0.000059	0.00062	<0.0030	0.107	<0.00010	0.00028	0.00457	<0.000020	<0.000050	<0.010	<0.0000050	6.72	<0.00050
Creek 661	661-03	Surface	Primary	VA23B0222-001	5/9/2023	0.000073	0.00075	<0.0030	0.188	<0.00010	0.00026	0.00443	<0.000020	<0.000050	<0.010	0.0000067	5.68	<0.00050
Creek 661	661-03	Surface	Duplicate	VA23B0222-002	5/9/2023	0.000067	0.00073	<0.0030	0.187	<0.00010	0.00029	0.00443	<0.000020	<0.000050	<0.010	0.0000055	5.67	<0.00050
Creek 661	661-03	Surface	Primary	VA23A9531-006	5/1/2023	0.000086	0.00079	<0.0030	0.137	<0.00010	0.00024	0.00457	<0.000020	<0.000050	<0.010	<0.0000050	6.02	<0.00050
Creek 661	661-03	Surface	Primary	VA23A8011-002	4/12/2023	0.00005	<0.00050	<0.0030	0.0696	<0.00010	0.00029	0.00516	<0.000020	<0.000050	<0.010	<0.0000050	9.64	<0.00050
Creek 661	661-03	Surface	Primary	VA23A5501-001	3/13/2023	0.000058	<0.00050	<0.0030	0.0595	<0.00010	0.00028	0.00535	<0.000020	<0.000050	<0.010	<0.0000050	10.6	<0.00050
Creek 661	661-03	Surface	Primary	VA23A2712-002	2/1/2023	0.000066	0.00051	<0.0030	0.06	<0.00010	0.0003	0.00607	<0.000020	<0.000050	<0.010	<0.0000050	9.38	<0.00050
Creek 661	661-10	Surface	Primary	VA23C9238-002	12/4/2023	0.00008	0.00069	<0.0030	0.0278	<0.00010	0.00073	0.00503	<0.000020	<0.000050	<0.010	0.00001	10.3	<0.00050
Creek 661	661-10	Surface	Primary	VA23C6622-001	11/2/2023	0.000091	0.00067	<0.0030	0.0203	<0.00010	0.00076	0.00485	<0.000020	<0.000050	<0.010	0.0000101	9.85	<0.00050
Creek 661	661-10	Surface	Primary	VA23C5577-002	10/23/2023	0.000086	0.00067	<0.0030	0.0267	<0.00010	0.0009	0.00452	<0.000020	<0.000050	<0.010	0.0000114	10.2	<0.00050
Creek 661	661-10	Surface	Duplicate	VA23C5577-003	10/23/2023	0.000082	0.00067	<0.0030	0.0264	<0.00010	0.00084	0.00457	<0.000020	<0.000050	<0.010	0.0000139	10.2	<0.00050
Creek 661	661-10	Surface	Primary	VA23C4865-005	10/16/2023	0.000092	0.00084	<0.0030	0.0285	<0.00010	0.00109	0.00493	<0.000020	<0.000050	<0.010	0.0000101	9.44	<0.00050
Creek 661	661-10	Surface	Primary	VA23C4279-003	10/10/2023	0.000108	0.00092	<0.0030	0.0298	<0.00010	0.00116	0.00488	<0.000020	<0.000050	<0.010	0.0000104	9.71	<0.00050
Creek 661	661-10	Surface	Primary	VA23C3847-003	10/3/2023	0.0001	0.00091	<0.0030	0.0276	<0.00010	0.00107	0.00477	<0.000020	<0.000050	<0.010	0.0000097	10.1	<0.00050
Creek 661	661-10	Surface	Primary	VA23C0875-001	9/4/2023	0.000097	0.00102	<0.0030	0.0319	<0.00010	0.00114	0.0048	<0.000020	<0.000050	<0.010	0.000013	9.99	<0.00050
Creek 661	661-10	Surface	Primary	VA23B9359-001	8/17/2023	0.000107	0.00122	<0.0030	0.0337	<0.00010	0.00125	0.00531	<0.000020	<0.000050	<0.010	0.0000098	9.28	<0.00050
Creek 661	661-10	Surface	Primary	VA23B7293-001	7/25/2023	0.000097	0.00108	0.0043	0.0375	<0.00010	0.00109	0.00473	<0.000020	<0.000050	<0.010	0.0000101	8.78	<0.00050
Creek 661	661-10	Surface	Primary	VA23B3987-001	6/19/2023	0.000104	0.00116	0.0043	0.0511	<0.00010	0.00086	0.00392	<0.000020	<0.000050	<0.010	0.0000115	6.65	<0.00050
Creek 661	661-10	Surface	Primary	VA23B2052-001	5/29/2023	0.000094	0.00112	0.0034	0.0818	<0.00010	0.00073	0.00358	<0.000020	<0.000050	<0.010	0.0000095	5.38	<0.00050
Creek 661	661-10	Surface	Primary	VA23B1529-002	5/23/2023	0.00012	0.00116	0.0047	0.0968	<0.00010	0.00064	0.00307	<0.000020	<0.000050	<0.010	0.0000117	4.2	<0.00050
Creek 661	661-10	Surface	Primary	VA23B0766-003	5/15/2023	0.000124	0.00117	0.0053	0.146	<0.00010	0.0006	0.00301	0.000021	<0.000050	<0.010	0.000012	3.49	<0.00050
Creek 661	661-10	Surface	Primary	VA23B0222-003	5/9/2023	0.000169	0.00174	0.0059	0.236	<0.00010	0.00057	0.00384	0.000024	<0.000050	<0.010	0.0000151	3.5	<0.00050
Creek 661	661-10	Surface	Primary	VA23A9531-001	5/1/2023	0.000197	0.00231	0.009	0.15	<0.00010	0.00068	0.00547	<0.000020	<0.000050	<0.010	0.000016	6.86	<0.00050
Creek 661	661-10	Surface	Primary	VA23A8011-001	4/12/2023	0.000139	0.00108	<0.0030	0.0239	<0.00010	0.00083	0.00434	<0.000020	<0.000050	<0.010	0.0000061	10.4	<0.00050

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*			Dissolved Metals									
						Uranium (U)-Total	Vanadium (V)-Total	Zinc (Zn)-Total	Aluminum (Al)-Dissolved	Antimony (Sb)-Dissolved	Arsenic (As)-Dissolved	Barium (Ba)-Dissolved	Beryllium (Be)-Dissolved	Bismuth (Bi)-Dissolved	Boron (B)-Dissolved	Cadmium (Cd)-Dissolved	Calcium (Ca)-Dissolved	Chromium (Cr)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Creek 661	661-10	Surface	Duplicate	VA23A8011-005	4/12/2023	0.000138	0.00105	<0.0030	0.0234	<0.00010	0.00086	0.00439	<0.000020	<0.000050	<0.010	0.0000062	10.4	<0.00050
Creek 661	661-10	Surface	Primary	VA23A5501-002	3/13/2023	0.000138	0.00105	<0.0030	0.0187	<0.00010	0.00091	0.00436	<0.000020	<0.000050	<0.010	<0.0000050	10.8	<0.00050
Creek 661	661-10	Surface	Primary	VA23A2712-001	2/1/2023	0.000141	0.00107	<0.0030	0.0208	<0.00010	0.00088	0.00444	<0.000020	<0.000050	<0.010	0.0000118	10.2	<0.00050
Creek 661	661-10	Surface	Primary	VA23A0821-002	1/11/2023	0.000158	0.00131	<0.0030	0.0205	<0.00010	0.0009	0.00465	<0.000020	<0.000050	<0.010	0.0000093	10.2	0.00051
Creek 661	661-20	Surface	Primary	VA23C6622-005	11/2/2023	0.00041	0.00066	<0.0030	0.0058	<0.00010	0.00087	0.00688	<0.000020	<0.000050	<0.010	<0.0000050	19.5	<0.00050
Creek 661	661-20	Surface	Duplicate	VA23C6622-006	11/2/2023	0.000412	0.00068	<0.0030	0.006	<0.00010	0.00087	0.00704	<0.000020	<0.000050	<0.010	<0.0000050	19.8	<0.00050
Creek 661	661-20	Surface	Primary	VA23C0762-004	8/31/2023	0.000352	0.00089	<0.0030	0.0147	<0.00010	0.00112	0.00793	<0.000020	<0.000050	<0.010	<0.0000050	19.2	<0.00050
Creek 661	661-20	Surface	Primary	VA23B7293-004	7/25/2023	0.00024	0.00115	<0.0030	0.0609	<0.00010	0.00116	0.00725	<0.000020	<0.000050	<0.010	<0.0000050	16.4	<0.00050
Creek 661	661-20	Surface	Primary	VA23B3987-003	6/19/2023	0.000327	0.0016	<0.0030	0.0194	<0.00010	0.00104	0.0068	<0.000020	<0.000050	<0.010	<0.0000050	16.2	<0.00050
Creek 661	661-20	Surface	Primary	VA23A9531-002	5/1/2023	0.000297	0.00296	0.0045	0.127	<0.00010	0.00081	0.00612	<0.000020	<0.000050	<0.010	0.0000056	10	<0.00050
Creek 661	661-20	Surface	Primary	VA23A8011-004	4/12/2023	0.000316	0.00102	<0.0030	0.0884	<0.00010	0.00079	0.00657	<0.000020	<0.000050	<0.010	<0.0000050	17.2	<0.00050
Creek 661	661-20	Surface	Primary	VA23A5501-003	3/13/2023	0.000311	0.00068	<0.0030	0.0081	<0.00010	0.0008	0.00626	<0.000020	<0.000050	<0.010	<0.0000050	17	<0.00050
Creek 661	661-20	Surface	Primary	VA23A2670-002	2/4/2023	0.000294	0.0008	<0.0030	0.0119	<0.00010	0.00081	0.00601	<0.000020	<0.000050	<0.010	<0.0000050	15.7	<0.00050
Creek 661	661-20	Surface	Primary	VA23A0821-003	1/11/2023	0.00034	0.00084	<0.0030	0.0097	<0.00010	0.00082	0.00633	<0.000020	<0.000050	<0.010	<0.0000050	17.3	<0.00050
Creek 661	661-20	Surface	Duplicate	VA23A0821-004	1/11/2023	0.000354	0.00079	<0.0030	0.0105	<0.00010	0.00084	0.00642	<0.000020	<0.000050	<0.010	<0.0000050	18	<0.00050
Chedakuz Creek	CC-03	Surface	Primary	VA23C9238-003	12/4/2023	0.000326	<0.00050	<0.0030	0.0028	<0.00010	0.00059	0.00642	<0.000020	<0.000050	<0.010	<0.0000050	32.6	<0.00050
Chedakuz Creek	CC-03	Surface	Primary	VA23C6622-003	11/2/2023	0.000353	<0.00050	<0.0030	0.0035	<0.00010	0.00056	0.00648	<0.000020	<0.000050	<0.010	<0.0000050	33.8	<0.00050
Chedakuz Creek	CC-03	Surface	Primary	VA23C5577-004	10/23/2023	0.000268	<0.00050	<0.0030	0.003	<0.00010	0.00065	0.00621	<0.000020	<0.000050	<0.010	<0.0000050	34.2	<0.00050
Chedakuz Creek	CC-03	Surface	Primary	VA23C4865-001	10/16/2023	0.000259	<0.00050	<0.0030	0.0041	<0.00010	0.00073	0.0069	<0.000020	<0.000050	<0.010	<0.0000050	30.8	<0.00050
Chedakuz Creek	CC-03	Surface	Primary	VA23C4279-001	10/10/2023	0.000279	<0.00050	<0.0030	0.0032	<0.00010	0.00071	0.00688	<0.000020	<0.000050	<0.010	<0.0000050	31.3	<0.00050
Chedakuz Creek	CC-03	Surface	Primary	VA23C3847-001	10/3/2023	0.000292	<0.00050	<0.0030	0.0022	<0.00010	0.00069	0.00671	<0.000020	<0.000050	<0.010	<0.0000050	33.3	<0.00050
Chedakuz Creek	CC-03	Surface	Primary	VA23C1491-003	9/11/2023	0.000261	0.0006	<0.0030	0.0037	<0.00010	0.00078	0.00769	<0.000020	<0.000050	<0.010	<0.0000050	34	<0.00050
Chedakuz Creek	CC-03	Surface	Primary	VA23C0762-002	8/31/2023	0.000209	0.00056	<0.0030	0.0049	<0.00010	0.00082	0.00738	<0.000020	<0.000050	<0.010	<0.0000050	30.9	<0.00050
Chedakuz Creek	CC-03	Surface	Primary	VA23B7293-005	7/25/2023	0.000153	0.00052	<0.0030	0.0078	<0.00010	0.00081	0.0069	<0.000020	<0.000050	<0.010	<0.0000050	28.7	<0.00050
Chedakuz Creek	CC-03	Surface	Primary	VA23B3987-004	6/19/2023	0.000167	0.00063	<0.0030	0.0094	<0.00010	0.00068	0.00703	<0.000020	<0.000050	<0.010	<0.0000050	28	<0.00050
Chedakuz Creek	CC-03	Surface	Primary	VA23B2052-003	5/29/2023	0.000086	0.00086	<0.0030	0.0099	<0.00010	0.00065	0.00624	<0.000020	<0.000050	<0.010	<0.0000050	21.4	<0.00050
Chedakuz Creek	CC-03	Surface	Primary	VA23B1529-003	5/23/2023	0.000066	0.00068	<0.0030	0.0117	<0.00010	0.00055	0.00592	<0.000020	<0.000050	<0.010	<0.0000050	19	<0.00050
Chedakuz Creek	CC-03	Surface	Primary	VA23B0766-001	5/15/2023	0.000059	0.0009	<0.0030	0.0127	<0.00010	0.00055	0.00647	<0.000020	<0.000050	<0.010	<0.0000050	16.7	<0.00050
Chedakuz Creek	CC-03	Surface	Primary	VA23B0222-004	5/9/2023	0.000042	0.00085	<0.0030	0.041	<0.00010	0.0004	0.00512	<0.000020	<0.000050	<0.010	<0.0000050	11.8	<0.00050
Chedakuz Creek	CC-03	Surface	Primary	VA23A9531-004	5/1/2023	0.000078	0.00152	<0.0030	0.18	<0.00010	0.00045	0.00612	<0.000020	<0.000050	<0.010	<0.0000050	12.4	<0.00050
Chedakuz Creek	CC-03	Surface	Duplicate	VA23A9531-005	5/1/2023	0.000073	0.0015	<0.0030	0.202	<0.00010	0.00044	0.00618	<0.000020	<0.000050	<0.010	<0.0000050	12.4	<0.00050
Chedakuz Creek	CC-03	Surface	Primary	VA23A8011-003	4/12/2023	0.000126	<0.00050	<0.0030	0.0278	<0.00010	0.00054	0.00783	<0.000020	<0.000050	<0.010	<0.0000050	23.9	<0.00050
Chedakuz Creek	CC-03	Surface	Primary	VA23A5501-004	3/13/2023	0.000136	<0.00050	<0.0030	0.0023	<0.00010	0.00057	0.00877	<0.000020	<0.000050	<0.010	<0.0000050	26	<0.00050
Chedakuz Creek	CC-03	Surface	Duplicate	VA23A5501-005	3/13/2023	0.000135	<0.00050	<0.0030	0.0025	<0.00010	0.00054	0.00892	<0.000020	<0.000050	<0.010	<0.0000050	26.2	<0.00050
Chedakuz Creek	CC-03	Surface	Primary	VA23A2712-003	2/1/2023	0.000144	<0.00050	<0.0030	0.002	<0.00010	0.00052	0.00821	<0.000020	<0.000050	<0.010	<0.0000050	24.8	<0.00050
Chedakuz Creek	CC-03	Surface	Primary	VA23A0821-001	1/11/2023	0.000155	<0.00050	<0.0030	0.0026	<0.00010	0.00057	0.009	<0.000020	<0.000050	<0.010	<0.0000050	26.7	<0.00050
Chedakuz Creek	CC-05	Surface	Primary	VA23C6622-004	11/2/2023	0.000386	0.00051	<0.0030	0.0041	<0.00010	0.0007	0.00676	<0.000020	<0.000050	<0.010	<0.0000050	25.3	<0.00050
Chedakuz Creek	CC-05	Surface	Primary	VA23C5577-005	10/23/2023	0.000299	<0.00050	<0.0030	0.0047	<0.00010	0.00075	0.0061	<0.000020	<0.000050	<0.010	<0.0000050	26.7	<0.00050
Chedakuz Creek	CC-05	Surface	Primary	VA23C4865-002	10/16/2023	0.000306	0.00051	<0.0030	0.0048	<0.00010	0.00082	0.00688	<0.000020	<0.000050	<0.010	<0.0000050	24.9	<0.00050
Chedakuz Creek	CC-05	Surface	Primary	VA23C4279-002	10/10/2023	0.000308	0.00055	<0.0030	0.0042	<0.00010	0.00082	0.00714	<0.000020	<0.000050	<0.010	<0.0000050	24.8	<0.00050
Chedakuz Creek	CC-05	Surface	Primary	VA23C3847-002	10/3/2023	0.000328	0.00058	<0.0030	0.0045	<0.00010	0.0008	0.007	<0.000020	<0.000050	<0.010	<0.0000050	26.2	<0.00050
Chedakuz Creek	CC-05	Surface	Primary	VA23C0762-001	8/31/2023	0.000279	0.00077	<0.0030	0.0091	<0.00010	0.0009	0.00725	<0.000020	<0.000050	<0.010	<0.0000050	24.9	<0.00050
Chedakuz Creek	CC-05	Surface	Duplicate	VA23C0762-003	8/31/2023	0.00027	0.00077	<0.0030	0.0088	<0.00010	0.00092	0.0073	<0.000020	<0.000050	<0.010	<0.0000050	25.8	<0.00050
Chedakuz Creek	CC-05	Surface	Primary	VA23B2052-004	5/29/2023	0.000118	0.00099	<0.0030	0.0169	<0.00010	0.00068	0.00612	<0.000020	<0.000050	<0.010	<0.0000050	18.8	<0.00050
Chedakuz Creek	CC-05	Surface	Primary	VA23B1529-004	5/23/2023	0.000095	0.00092	<0.0030	0.0179	<0.00010	0.00061	0.00562	<0.000020	<0.000050	<0.010	<0.0000050	16.2	<0.00050
Chedakuz Creek	CC-05	Surface	Primary	VA23B0766-002	5/15/2023	0.000114	0.00123	<0.0030	0.0497	<0.00010	0.00055	0.00518	<0.000020	<0.000050	<0.010	<0.0000050	11.9	<0.00050

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*			Dissolved Metals									
						Uranium (U)-Total	Vanadium (V)-Total	Zinc (Zn)-Total	Aluminum (Al)-Dissolved	Antimony (Sb)-Dissolved	Arsenic (As)-Dissolved	Barium (Ba)-Dissolved	Beryllium (Be)-Dissolved	Bismuth (Bi)-Dissolved	Boron (B)-Dissolved	Cadmium (Cd)-Dissolved	Calcium (Ca)-Dissolved	Chromium (Cr)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Chedakuz Creek	CC-05	Surface	Primary	VA23B0222-005	5/9/2023	0.000153	0.00179	<0.0030	0.122	<0.00010	0.00053	0.0046	<0.000020	<0.000050	<0.010	0.0000064	8.58	<0.00050
Chedakuz Creek	CC-05	Surface	Primary	VA23A9531-003	5/1/2023	0.00017	0.00245	0.0034	0.175	<0.00010	0.00054	0.00581	<0.000020	<0.000050	<0.010	0.0000058	11.6	<0.00050
Chedakuz Creek	CC-05	Surface	Primary	VA23A2712-004	2/1/2023	0.000205	<0.00050	<0.0030	0.007	<0.00010	0.00065	0.0072	<0.000020	<0.000050	<0.010	<0.0000050	22.2	<0.00050
Chedakuz Creek	CC-10	Surface	Primary	VA23C6498-005	11/1/2023	0.00011	<0.00050	<0.0030	<0.0010	<0.00010	0.00052	0.00519	<0.000020	<0.000050	<0.010	<0.0000050	18.4	<0.00050
Chedakuz Creek	CC-10	Surface	Primary	VA23B9219-006	8/16/2023	0.000098	<0.00050	<0.0030	0.0022	<0.00010	0.0004	0.00562	<0.000020	<0.000050	<0.010	<0.0000050	19.3	<0.00050
Chedakuz Creek	CC-10	Surface	Primary	VA23B0508-006	5/11/2023	0.00017	0.00127	<0.0030	0.013	<0.00010	0.00048	0.00522	<0.000020	<0.000050	<0.010	<0.0000050	17.5	<0.00050
Chedakuz Creek	CC-10	Surface	Primary	VA23A3177-008	2/8/2023	0.000086	<0.00050	<0.0030	<0.0010	<0.00010	0.00055	0.00572	<0.000020	<0.000050	<0.010	<0.0000050	19.6	<0.00050
Chedakuz Creek	CC-15	Surface	Primary	VA23C9626-003	12/6/2023	0.000129	<0.00050	<0.0030	0.0067	<0.00010	0.00052	0.00696	<0.000020	<0.000050	<0.010	<0.0000050	17.4	<0.00050
Chedakuz Creek	CC-15	Surface	Primary	VA23C6498-004	11/1/2023	0.000149	0.00058	<0.0030	0.0034	<0.00010	0.00052	0.00763	<0.000020	<0.000050	<0.010	<0.0000050	17.9	<0.00050
Chedakuz Creek	CC-15	Surface	Primary	VA23C5771-003	10/24/2023	0.000134	0.00065	<0.0030	0.0045	<0.00010	0.00058	0.00828	<0.000020	<0.000050	<0.010	<0.0000050	20.5	<0.00050
Chedakuz Creek	CC-15	Surface	Primary	VA23C5184-004	10/20/2023	0.000115	<0.00050	<0.0030	0.0046	<0.00010	0.00061	0.00885	<0.000020	<0.000050	<0.010	<0.0000050	19.2	<0.00050
Chedakuz Creek	CC-15	Surface	Primary	VA23C4458-002	10/11/2023	0.000119	0.00052	<0.0030	0.0041	<0.00010	0.00063	0.00848	<0.000020	<0.000050	<0.010	<0.0000050	19.3	<0.00050
Chedakuz Creek	CC-15	Surface	Primary	VA23C3871-002	10/4/2023	0.00011	0.00051	<0.0030	0.0053	<0.00010	0.00061	0.00805	<0.000020	<0.000050	<0.010	<0.0000050	18.7	<0.00050
Chedakuz Creek	CC-15	Surface	Primary	VA23C2546-004	9/20/2023	0.000125	0.00057	<0.0030	0.0064	<0.00010	0.00065	0.00815	<0.000020	<0.000050	<0.010	<0.0000050	18.9	<0.00050
Chedakuz Creek	CC-15	Surface	Primary	VA23B9868-004	8/23/2023	0.000103	0.00064	<0.0030	0.0057	<0.00010	0.00064	0.00814	<0.000020	<0.000050	<0.010	<0.0000050	18.2	<0.00050
Chedakuz Creek	CC-15	Surface	Primary	VA23B7734-006	7/31/2023	0.000109	0.00063	<0.0030	0.0103	<0.00010	0.00067	0.00786	<0.000020	<0.000050	<0.010	<0.0000050	17.5	<0.00050
Chedakuz Creek	CC-15	Surface	Primary	VA23B2847-002	6/6/2023	0.000113	0.00078	<0.0030	0.0079	<0.00010	0.00052	0.00639	<0.000020	<0.000050	<0.010	<0.0000050	17.7	<0.00050
Chedakuz Creek	CC-15	Surface	Primary	VA23B2219-005	5/30/2023	0.000107	0.00057	<0.0030	0.0086	<0.00010	0.00061	0.00626	<0.000020	<0.000050	<0.010	<0.0000050	16.6	<0.00050
Chedakuz Creek	CC-15	Surface	Primary	VA23B1690-003	5/24/2023	0.000114	0.00068	<0.0030	0.016	<0.00010	0.00052	0.00594	<0.000020	<0.000050	<0.010	<0.0000050	15.6	<0.00050
Chedakuz Creek	CC-15	Surface	Primary	VA23B1108-004	5/17/2023	0.000125	0.00083	<0.0030	0.0434	<0.00010	0.00055	0.00613	<0.000020	<0.000050	<0.010	<0.0000050	13.6	<0.00050
Chedakuz Creek	CC-15	Surface	Primary	VA23B0508-003	5/11/2023	0.000134	0.00102	<0.0030	0.0572	<0.00010	0.00052	0.00678	<0.000020	<0.000050	<0.010	<0.0000050	13.3	<0.00050
Chedakuz Creek	CC-15	Surface	Duplicate	VA23B0508-007	5/11/2023	0.000136	0.00111	<0.0030	0.0575	<0.00010	0.00053	0.00665	<0.000020	<0.000050	<0.010	<0.0000050	13.2	<0.00050
Chedakuz Creek	CC-15	Surface	Primary	VA23A9782-002	5/3/2023	0.000256	0.00372	0.0041	0.0517	<0.00010	0.0007	0.00993	<0.000020	<0.000050	<0.010	<0.0000050	12.9	<0.00050
Chedakuz Creek	CC-15	Surface	Primary	VA23A9207-002	4/26/2023	0.000174	0.00116	<0.0030	0.0096	<0.00010	0.00056	0.00795	<0.000020	<0.000050	<0.010	<0.0000050	17.4	<0.00050
Chedakuz Creek	CC-15	Surface	Primary	VA23A6844-003	3/27/2023	0.000169	0.0011	0.0051	0.0046	<0.00010	0.00061	0.00762	<0.000020	<0.000050	<0.010	<0.0000050	19.7	<0.00050
Chedakuz Creek	CC-15	Surface	Primary	VA23A2861-001	2/6/2023	0.000124	<0.00050	<0.0030	0.0025	<0.00010	0.00056	0.00682	<0.000020	<0.000050	<0.010	<0.0000050	19.8	<0.00050
Chedakuz Creek	CC-15	Surface	Primary	VA23A1889-002	1/24/2023	0.000122	0.00061	<0.0030	0.0024	<0.00010	0.0006	0.00732	<0.000020	<0.000050	<0.010	<0.0000050	21.4	<0.00050
Chedakuz Creek	CC-20	Surface	Primary	VA23C9626-002	12/6/2023	0.000128	<0.00050	<0.0030	0.0066	<0.00010	0.00051	0.0071	<0.000020	<0.000050	<0.010	<0.0000050	17.9	<0.00050
Chedakuz Creek	CC-20	Surface	Primary	VA23C6498-003	11/1/2023	0.000145	<0.00050	<0.0030	0.0031	<0.00010	0.00048	0.00733	<0.000020	<0.000050	<0.010	<0.0000050	18.6	<0.00050
Chedakuz Creek	CC-20	Surface	Primary	VA23C5771-004	10/24/2023	0.000132	0.00055	<0.0030	0.0043	<0.00010	0.00053	0.00757	<0.000020	<0.000050	<0.010	<0.0000050	19.7	<0.00050
Chedakuz Creek	CC-20	Surface	Primary	VA23C5184-005	10/20/2023	0.000122	<0.00050	<0.0030	0.0041	<0.00010	0.0006	0.00832	<0.000020	<0.000050	<0.010	<0.0000050	19.2	<0.00050
Chedakuz Creek	CC-20	Surface	Primary	VA23C4458-003	10/11/2023	0.000124	<0.00050	<0.0030	0.0042	<0.00010	0.0006	0.00812	<0.000020	<0.000050	<0.010	<0.0000050	19.7	<0.00050
Chedakuz Creek	CC-20	Surface	Primary	VA23C3871-003	10/4/2023	0.000113	<0.00050	<0.0030	0.004	<0.00010	0.0006	0.00788	<0.000020	<0.000050	<0.010	<0.0000050	19	<0.00050
Chedakuz Creek	CC-20	Surface	Duplicate	VA23C3871-004	10/4/2023	0.00011	<0.00050	<0.0030	0.0042	<0.00010	0.00061	0.00775	<0.000020	<0.000050	<0.010	<0.0000050	19.1	<0.00050
Chedakuz Creek	CC-20	Surface	Primary	VA23C2546-003	9/20/2023	0.000118	0.00056	<0.0030	0.0045	<0.00010	0.0006	0.00814	<0.000020	<0.000050	<0.010	<0.0000050	18.6	<0.00050
Chedakuz Creek	CC-20	Surface	Primary	VA23B9868-005	8/23/2023	0.000101	0.00059	<0.0030	0.0062	<0.00010	0.0006	0.0079	<0.000020	<0.000050	<0.010	0.0000061	18.1	<0.00050
Chedakuz Creek	CC-20	Surface	Primary	VA23B7734-007	7/31/2023	0.000111	0.00064	<0.0030	0.009	<0.00010	0.00068	0.00728	<0.000020	<0.000050	<0.010	<0.0000050	18.1	<0.00050
Chedakuz Creek	CC-20	Surface	Primary	VA23B4330-006	6/21/2023	0.000111	0.00065	<0.0030	0.0094	<0.00010	0.00067	0.00703	<0.000020	<0.000050	<0.010	<0.0000050	19	<0.00050
Chedakuz Creek	CC-20	Surface	Primary	VA23B2219-002	5/30/2023	0.000108	0.00063	<0.0030	0.0098	<0.00010	0.00056	0.0061	<0.000020	<0.000050	<0.010	<0.0000050	16.4	<0.00050
Chedakuz Creek	CC-20	Surface	Duplicate	VA23B2219-003	5/30/2023	0.000107	0.00062	<0.0030	0.0081	<0.00010	0.00059	0.00623	<0.000020	<0.000050	<0.010	<0.0000050	16.4	<0.00050
Chedakuz Creek	CC-20	Surface	Primary	VA23B1690-004	5/24/2023	0.000107	0.00062	<0.0030	0.0181	<0.00010	0.00059	0.00611	<0.000020	<0.000050	<0.010	<0.0000050	15.6	<0.00050
Chedakuz Creek	CC-20	Surface	Primary	VA23B1108-003	5/17/2023	0.000129	0.00084	<0.0030	0.0422	<0.00010	0.00054	0.00608	<0.000020	<0.000050	<0.010	<0.0000050	13.3	<0.00050
Chedakuz Creek	CC-20	Surface	Primary	VA23B0508-004	5/11/2023	0.000133	0.00104	<0.0030	0.0532	<0.00010	0.00049	0.00683	<0.000020	<0.000050	<0.010	<0.0000050	13.4	<0.00050
Chedakuz Creek	CC-20	Surface	Primary	VA23A9782-003	5/3/2023	0.000177	0.00226	<0.0030	0.051	<0.00010	0.00061	0.00995	<0.000020	<0.000050	<0.010	<0.0000050	12.8	<0.00050
Chedakuz Creek	CC-20	Surface	Primary	VA23A9076-002	4/25/2023	0.000148	0.00081	<0.0030	0.008	<0.00010	0.00058	0.00786	<0.000020	<0.000050	<0.010	<0.0000050	18.1	<0.00050
Chedakuz Creek	CC-20	Surface	Primary	VA23A6844-002	3/27/2023	0.000147	0.00074	<0.0030	0.0031	<0.00010	0.00056	0.00727	<0.000020	<0.000050	<0.010	<0.0000050	20.1	<0.00050

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*			Dissolved Metals									
						Uranium (U)-Total	Vanadium (V)-Total	Zinc (Zn)-Total	Aluminum (Al)-Dissolved	Antimony (Sb)-Dissolved	Arsenic (As)-Dissolved	Barium (Ba)-Dissolved	Beryllium (Be)-Dissolved	Bismuth (Bi)-Dissolved	Boron (B)-Dissolved	Cadmium (Cd)-Dissolved	Calcium (Ca)-Dissolved	Chromium (Cr)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Chedakuz Creek	CC-20	Surface	Primary	VA23A2861-002	2/6/2023	0.000124	<0.00050	<0.0030	0.0024	<0.00010	0.00056	0.0067	<0.000020	<0.000050	<0.010	<0.0000050	20.4	<0.00050
Chedakuz Creek	CC-20	Surface	Primary	VA23A1412-002	1/18/2023	0.000121	<0.00050	<0.0030	0.002	<0.00010	0.00054	0.00698	<0.000020	<0.000050	<0.010	<0.0000050	20.1	<0.00050
Chedakuz Creek	CC-30	Surface	Primary	VA23C6498-002	11/1/2023	0.000204	<0.00050	<0.0030	0.0097	<0.00010	0.00046	0.00874	<0.000020	<0.000050	<0.010	<0.0000050	21	<0.00050
Chedakuz Creek	CC-30	Surface	Primary	VA23C0393-002	8/29/2023	0.00014	0.00064	<0.0030	0.0035	<0.00010	0.00072	0.00857	<0.000020	<0.000050	<0.010	<0.0000050	20.6	<0.00050
Chedakuz Creek	CC-30	Surface	Duplicate	VA23C0393-003	8/29/2023	0.000134	0.00066	<0.0030	0.0036	<0.00010	0.00077	0.00834	<0.000020	<0.000050	<0.010	<0.0000050	20.2	<0.00050
Chedakuz Creek	CC-30	Surface	Primary	VA23B0508-001	5/11/2023	0.000106	0.00115	<0.0030	0.0287	<0.00010	0.00046	0.00714	<0.000020	<0.000050	<0.010	<0.0000050	12.4	<0.00050
Chedakuz Creek	CC-30	Surface	Primary	VA23A3560-001	2/14/2023	0.000178	0.00054	<0.0030	0.0027	<0.00010	0.00056	0.00731	<0.000020	<0.000050	<0.010	<0.0000050	20.6	<0.00050
Chedakuz Creek	CC-40	Surface	Primary	VA23C9626-001	12/6/2023	0.00022	<0.00050	<0.0030	0.0027	<0.00010	0.00058	0.00886	<0.000020	<0.000050	<0.010	<0.0000050	22	<0.00050
Chedakuz Creek	CC-40	Surface	Primary	VA23C6498-001	11/1/2023	0.000243	<0.00050	<0.0030	0.003	<0.00010	0.00063	0.00873	<0.000020	<0.000050	<0.010	<0.0000050	22.1	<0.00050
Chedakuz Creek	CC-40	Surface	Primary	VA23C5771-001	10/24/2023	0.000219	0.00055	<0.0030	0.0034	<0.00010	0.00067	0.00785	<0.000020	<0.000050	<0.010	<0.0000050	20.9	<0.00050
Chedakuz Creek	CC-40	Surface	Duplicate	VA23C5771-002	10/24/2023	0.000228	0.00062	<0.0030	0.0038	<0.00010	0.00067	0.00805	<0.000020	<0.000050	<0.010	<0.0000050	21.5	<0.00050
Chedakuz Creek	CC-40	Surface	Primary	VA23C5184-001	10/20/2023	0.000195	<0.00050	<0.0030	0.0024	<0.00010	0.00075	0.00944	<0.000020	<0.000050	<0.010	<0.0000050	23.8	<0.00050
Chedakuz Creek	CC-40	Surface	Primary	VA23C4458-001	10/11/2023	0.000226	0.00058	<0.0030	0.0025	<0.00010	0.00082	0.00922	<0.000020	<0.000050	<0.010	<0.0000050	23.4	<0.00050
Chedakuz Creek	CC-40	Surface	Primary	VA23C3871-001	10/4/2023	0.000196	0.0005	<0.0030	0.0033	<0.00010	0.00082	0.00902	<0.000020	<0.000050	<0.010	<0.0000050	22.7	<0.00050
Chedakuz Creek	CC-40	Surface	Primary	VA23C2546-005	9/20/2023	0.000218	0.00051	<0.0030	0.0021	<0.00010	0.00081	0.00876	<0.000020	<0.000050	<0.010	<0.0000050	23.7	<0.00050
Chedakuz Creek	CC-40	Surface	Primary	VA23C0393-001	8/29/2023	0.00016	0.00062	<0.0030	0.0031	<0.00010	0.00092	0.00868	<0.000020	<0.000050	<0.010	<0.0000050	21.1	<0.00050
Chedakuz Creek	CC-40	Surface	Primary	VA23B7523-007	7/27/2023	0.000124	0.00067	<0.0030	0.006	<0.00010	0.00084	0.00787	<0.000020	<0.000050	<0.010	<0.0000050	20.6	<0.00050
Chedakuz Creek	CC-40	Surface	Primary	VA23B2847-001	6/6/2023	0.000144	0.00072	<0.0030	0.006	<0.00010	0.00063	0.00767	<0.000020	<0.000050	<0.010	<0.0000050	18.8	<0.00050
Chedakuz Creek	CC-40	Surface	Primary	VA23B2219-001	5/30/2023	0.000169	0.00155	<0.0030	0.0101	<0.00010	0.00058	0.00748	<0.000020	<0.000050	<0.010	<0.0000050	16.4	<0.00050
Chedakuz Creek	CC-40	Surface	Primary	VA23B1690-001	5/24/2023	0.000121	0.00085	<0.0030	0.0114	<0.00010	0.00051	0.0071	<0.000020	<0.000050	<0.010	<0.0000050	15.7	<0.00050
Chedakuz Creek	CC-40	Surface	Primary	VA23B1108-001	5/17/2023	0.000113	0.0012	<0.0030	0.0249	<0.00010	0.00049	0.00696	<0.000020	<0.000050	<0.010	<0.0000050	12.9	<0.00050
Chedakuz Creek	CC-40	Surface	Duplicate	VA23B1108-002	5/17/2023	0.000103	0.0012	<0.0030	0.0225	<0.00010	0.00048	0.00698	<0.000020	<0.000050	<0.010	<0.0000050	12.9	<0.00050
Chedakuz Creek	CC-40	Surface	Primary	VA23B0508-002	5/11/2023	0.000108	0.0013	<0.0030	0.0394	<0.00010	0.00047	0.00715	<0.000020	<0.000050	<0.010	<0.0000050	12.5	<0.00050
Chedakuz Creek	CC-40	Surface	Primary	VA23A9782-001	5/3/2023	0.000143	0.00257	<0.0030	0.039	<0.00010	0.00065	0.0087	<0.000020	<0.000050	<0.010	<0.0000050	14	<0.00050
Chedakuz Creek	CC-40	Surface	Primary	VA23A9207-001	4/26/2023	0.000175	0.00099	<0.0030	0.0083	<0.00010	0.00052	0.00789	<0.000020	<0.000050	<0.010	<0.0000050	19.2	<0.00050
Chedakuz Creek	CC-40	Surface	Primary	VA23A6844-001	3/27/2023	0.000225	0.00058	<0.0030	0.0033	<0.00010	0.0006	0.00813	<0.000020	<0.000050	<0.010	<0.0000050	22.2	<0.00050
Chedakuz Creek	CC-40	Surface	Primary	VA23A3035-001	2/7/2023	0.000191	<0.00050	<0.0030	0.0033	<0.00010	0.00055	0.00754	<0.000020	<0.000050	<0.010	<0.0000050	22.2	<0.00050
Chedakuz Creek	CC-40	Surface	Primary	VA23A1412-001	1/18/2023	0.000197	<0.00050	<0.0030	0.0025	<0.00010	0.00055	0.00823	<0.000020	<0.000050	<0.010	<0.0000050	21.4	<0.00050
Creek 705	705-05	Surface	Primary	VA23C9661-004	12/7/2023	0.00013	<0.00050	<0.0030	0.0281	<0.00010	0.00023	0.00622	<0.000020	<0.000050	<0.010	<0.0000050	7.97	<0.00050
Creek 705	705-05	Surface	Primary	VA23C7190-010	11/9/2023	0.000129	<0.00050	<0.0030	0.0498	<0.00010	0.00023	0.00594	<0.000020	<0.000050	<0.010	<0.0000050	6.61	<0.00050
Creek 705	705-05	Surface	Duplicate	VA23C7190-011	11/9/2023	0.000132	<0.00050	<0.0030	0.0518	<0.00010	0.00025	0.00594	<0.000020	<0.000050	<0.010	<0.0000050	6.6	<0.00050
Creek 705	705-05	Surface	Primary	VA23C4014-006	10/6/2023	0.000099	<0.00050	<0.0030	0.0254	<0.00010	0.00027	0.00746	<0.000020	<0.000050	<0.010	<0.0000050	7.16	<0.00050
Creek 705	705-05	Surface	Primary	VA23C1674-001	9/12/2023	0.000119	0.00059	<0.0030	0.0352	<0.00010	0.0003	0.00873	<0.000020	<0.000050	<0.010	<0.0000050	7.52	<0.00050
Creek 705	705-05	Surface	Primary	VA23B8906-003	8/14/2023	0.000175	<0.00050	<0.0030	0.0468	<0.00010	0.0003	0.00808	<0.000020	<0.000050	<0.010	<0.0000050	6.8	<0.00050
Creek 705	705-05	Surface	Duplicate	VA23B8906-004	8/14/2023	0.000185	<0.00050	<0.0030	0.0465	<0.00010	0.00032	0.00771	<0.000020	<0.000050	<0.010	<0.0000050	6.79	<0.00050
Creek 705	705-05	Surface	Primary	VA23B7523-003	7/27/2023	0.000232	0.00057	<0.0030	0.109	<0.00010	0.00028	0.00639	<0.000020	<0.000050	<0.010	<0.0000050	6.59	<0.00050
Creek 705	705-05	Surface	Primary	VA23B3687-004	6/14/2023	0.000173	<0.00050	<0.0030	0.0484	<0.00010	0.00025	0.00539	<0.000020	<0.000050	<0.010	<0.0000050	5.54	<0.00050
Creek 705	705-05	Surface	Primary	VA23B0364-002	5/10/2023	0.000254	<0.00050	<0.0030	0.147	<0.00010	0.0002	0.00543	0.00003	<0.000050	<0.010	<0.0000050	4.21	<0.00050
Creek 705	705-05	Surface	Primary	VA23A8158-003	4/13/2023	0.000161	0.0005	<0.0030	0.0677	<0.00010	0.0002	0.00924	<0.000020	<0.000050	<0.010	<0.0000050	8.68	<0.00050
Creek 705	705-05	Surface	Primary	VA23A6844-006	3/28/2023	0.000146	<0.00050	<0.0030	0.0314	<0.00010	0.00019	0.00529	<0.000020	<0.000050	<0.010	<0.0000050	6.39	<0.00050
Creek 705	705-05	Surface	Primary	VA23A3268-004	2/9/2023	0.000153	<0.00050	<0.0030	0.0254	<0.00010	0.0002	0.00511	<0.000020	<0.000050	<0.010	<0.0000050	5.88	<0.00050
Creek 705	705-05	Surface	Primary	VA23A1264-002	1/17/2023	0.000141	<0.00050	<0.0030	0.0326	<0.00010	0.00019	0.00559	<0.000020	<0.000050	<0.010	<0.0000050	6.19	<0.00050
Creek 705	705-10	Surface	Primary	VA23C9661-005	12/7/2023	0.000105	<0.00050	<0.0030	0.0232	<0.00010	0.00016	0.00851	<0.000020	<0.000050	<0.010	<0.0000050	9.02	<0.00050
Creek 705	705-10	Surface	Primary	VA23C6880-001	11/6/2023	0.00013	<0.00050	<0.0030	0.0467	<0.00010	0.00018	0.00853	<0.000020	<0.000050	<0.010	<0.0000050	8.12	<0.00050
Creek 705	705-10	Surface	Primary	VA23C6383-004	10/31/2023	0.000092	<0.00050	<0.0030	0.0167	<0.00010	0.00015	0.009	<0.000020	<0.000050	<0.010	<0.0000050	9.22	<0.00050
Creek 705	705-10	Surface	Duplicate	VA23C6383-006	10/31/2023	0.00006	<0.00050	<0.0030	0.0066	<0.00010	0.00074	0.00408	<0.000020	<0.000050	<0.010	<0.0000050	11.8	<0.00050

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*			Dissolved Metals									
						Uranium (U)-Total	Vanadium (V)-Total	Zinc (Zn)-Total	Aluminum (Al)-Dissolved	Antimony (Sb)-Dissolved	Arsenic (As)-Dissolved	Barium (Ba)-Dissolved	Beryllium (Be)-Dissolved	Bismuth (Bi)-Dissolved	Boron (B)-Dissolved	Cadmium (Cd)-Dissolved	Calcium (Ca)-Dissolved	Chromium (Cr)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Creek 705	705-10	Surface	Primary	VA23C5894-004	10/25/2023	0.000086	<0.00050	<0.0030	0.0171	<0.00010	0.00016	0.0091	<0.000020	<0.000050	<0.010	<0.0000050	9.67	<0.00050
Creek 705	705-10	Surface	Primary	VA23C4858-004	10/17/2023	0.000084	<0.00050	<0.0030	0.0185	<0.00010	0.00015	0.00869	<0.000020	<0.000050	<0.010	<0.0000050	9.26	<0.00050
Creek 705	705-10	Surface	Primary	VA23C4586-005	10/14/2023	0.000086	<0.00050	<0.0030	0.0163	<0.00010	0.00018	0.00849	<0.000020	<0.000050	<0.010	<0.0000050	8.31	<0.00050
Creek 705	705-10	Surface	Primary	VA23C4014-007	10/6/2023	0.000089	<0.00050	<0.0030	0.0176	<0.00010	0.00016	0.00847	<0.000020	<0.000050	<0.010	<0.0000050	8.53	<0.00050
Creek 705	705-10	Surface	Primary	VA23C1674-002	9/12/2023	0.000102	<0.00050	<0.0030	0.0234	<0.00010	0.00019	0.00891	<0.000020	<0.000050	<0.010	<0.0000050	8.46	<0.00050
Creek 705	705-10	Surface	Primary	VA23B8906-002	8/14/2023	0.000155	<0.00050	<0.0030	0.0422	<0.00010	0.00025	0.0087	<0.000020	<0.000050	<0.010	<0.0000050	7.54	<0.00050
Creek 705	705-10	Surface	Primary	VA23B7523-002	7/27/2023	0.000236	0.00053	<0.0030	0.0857	<0.00010	0.00027	0.00761	<0.000020	<0.000050	<0.010	<0.0000050	7.25	<0.00050
Creek 705	705-10	Surface	Primary	VA23B3687-005	6/14/2023	0.000142	<0.00050	<0.0030	0.0408	<0.00010	0.00018	0.00853	<0.000020	<0.000050	<0.010	<0.0000050	7.56	<0.00050
Creek 705	705-10	Surface	Primary	VA23B2224-004	5/31/2023	0.000225	<0.00050	<0.0030	0.0726	<0.00010	0.00017	0.00713	<0.000020	<0.000050	<0.010	<0.0000050	6.15	<0.00050
Creek 705	705-10	Surface	Primary	VA23B1379-005	5/22/2023	0.000257	<0.00050	<0.0030	0.104	<0.00010	0.0002	0.00614	0.00003	<0.000050	<0.010	<0.0000050	5.59	<0.00050
Creek 705	705-10	Surface	Primary	VA23B0766-009	5/16/2023	0.000271	0.00063	<0.0030	0.147	<0.00010	0.00015	0.00582	0.000027	<0.000050	<0.010	<0.0000050	4.4	<0.00050
Creek 705	705-10	Surface	Primary	VA23B0364-003	5/10/2023	0.000276	0.00062	<0.0030	0.2	<0.00010	0.00018	0.0071	0.000032	<0.000050	<0.010	<0.0000050	5.08	<0.00050
Creek 705	705-10	Surface	Primary	VA23A9638-001	5/2/2023	0.000214	0.00108	<0.0030	0.318	<0.00010	0.00021	0.0102	0.000039	<0.000050	<0.010	0.0000102	5.22	<0.00050
Creek 705	705-10	Surface	Primary	VA23A8158-001	4/13/2023	0.00016	<0.00050	<0.0030	0.0712	<0.00010	0.00017	0.0093	<0.000020	<0.000050	<0.010	<0.0000050	8.42	<0.00050
Creek 705	705-10	Surface	Duplicate	VA23A8158-002	4/13/2023	0.000162	<0.00050	<0.0030	0.0691	<0.00010	0.00018	0.00905	<0.000020	<0.000050	<0.010	<0.0000050	8.41	<0.00050
Creek 705	705-10	Surface	Primary	VA23A6844-005	3/27/2023	0.000131	<0.00050	<0.0030	0.0323	<0.00010	0.00016	0.00812	<0.000020	<0.000050	<0.010	<0.0000050	8.27	<0.00050
Creek 705	705-10	Surface	Primary	VA23A3268-005	2/9/2023	0.000128	<0.00050	<0.0030	0.0382	<0.00010	0.00016	0.00775	<0.000020	<0.000050	<0.010	<0.0000050	6.74	<0.00050
Creek 705	705-10	Surface	Primary	VA23A1264-003	1/17/2023	0.000146	<0.00050	<0.0030	0.0675	<0.00010	0.00016	0.00793	<0.000020	<0.000050	<0.010	<0.0000050	7.36	<0.00050
Fawnie Creek	FC-01	Surface	Primary	VA23C9661-006	12/7/2023	0.000065	0.00054	<0.0030	0.0073	<0.00010	0.0008	0.004	<0.000020	<0.000050	<0.010	<0.0000050	13.2	<0.00050
Fawnie Creek	FC-01	Surface	Primary	VA23C6880-002	11/6/2023	0.000053	<0.00050	<0.0030	0.0083	<0.00010	0.00077	0.00387	<0.000020	<0.000050	<0.010	0.000006	10.9	<0.00050
Fawnie Creek	FC-01	Surface	Primary	VA23C6383-005	10/31/2023	0.000088	<0.00050	<0.0030	0.0165	<0.00010	0.00015	0.00878	<0.000020	<0.000050	<0.010	<0.0000050	9.25	<0.00050
Fawnie Creek	FC-01	Surface	Primary	VA23C5894-005	10/25/2023	0.000054	<0.00050	<0.0030	0.0083	<0.00010	0.00071	0.0042	<0.000020	<0.000050	<0.010	0.0000063	12.2	<0.00050
Fawnie Creek	FC-01	Surface	Primary	VA23C4858-005	10/17/2023	0.000054	0.00055	<0.0030	0.0102	<0.00010	0.00083	0.00432	<0.000020	<0.000050	<0.010	0.0000066	11	<0.00050
Fawnie Creek	FC-01	Surface	Duplicate	VA23C4858-006	10/17/2023	0.000044	0.00056	<0.0030	0.0099	<0.00010	0.00086	0.00408	<0.000020	<0.000050	<0.010	<0.0000050	11.4	<0.00050
Fawnie Creek	FC-01	Surface	Primary	VA23C4586-006	10/14/2023	0.000052	0.0005	<0.0030	0.0085	<0.00010	0.00075	0.00436	<0.000020	<0.000050	<0.010	<0.0000050	11.4	<0.00050
Fawnie Creek	FC-01	Surface	Primary	VA23C4014-008	10/6/2023	0.000044	0.00055	<0.0030	0.0082	<0.00010	0.00076	0.00415	<0.000020	<0.000050	<0.010	0.0000068	12.4	<0.00050
Fawnie Creek	FC-01	Surface	Primary	VA23C0875-004	9/4/2023	0.000045	0.0006	<0.0030	0.0105	<0.00010	0.00074	0.00456	<0.000020	<0.000050	<0.010	0.0000064	11.5	<0.00050
Fawnie Creek	FC-01	Surface	Primary	VA23B8906-001	8/14/2023	0.000039	0.00064	<0.0030	0.0175	<0.00010	0.00073	0.00417	<0.000020	<0.000050	<0.010	0.0000078	10.2	<0.00050
Fawnie Creek	FC-01	Surface	Primary	VA23B7523-001	7/27/2023	0.000034	0.00071	<0.0030	0.0239	<0.00010	0.0008	0.0034	<0.000020	<0.000050	<0.010	0.0000086	9.94	<0.00050
Fawnie Creek	FC-01	Surface	Primary	VA23B4330-001	6/21/2023	0.000046	0.00058	<0.0030	0.0477	<0.00010	0.00064	0.00274	<0.000020	<0.000050	<0.010	0.0000089	7.25	<0.00050
Fawnie Creek	FC-01	Surface	Primary	VA23B2224-003	5/31/2023	0.000038	<0.00050	<0.0030	0.0455	<0.00010	0.0005	0.00236	<0.000020	<0.000050	<0.010	0.0000068	6.11	<0.00050
Fawnie Creek	FC-01	Surface	Primary	VA23B1379-006	5/22/2023	0.000039	0.00052	<0.0030	0.0838	<0.00010	0.00043	0.00182	<0.000020	<0.000050	<0.010	0.0000139	4.83	<0.00050
Fawnie Creek	FC-01	Surface	Primary	VA23B0766-006	5/15/2023	0.000067	0.00241	0.006	0.147	<0.00010	0.00033	0.0017	<0.000020	<0.000050	<0.010	0.0000185	3.55	<0.00050
Fawnie Creek	FC-01	Surface	Primary	VA23B0364-004	5/10/2023	0.000048	0.0006	<0.0030	0.132	<0.00010	0.00041	0.00227	<0.000020	<0.000050	<0.010	0.0000136	5.15	<0.00050
Fawnie Creek	FC-01	Surface	Primary	VA23A9638-002	5/2/2023	0.000074	0.00162	<0.0030	0.0617	<0.00010	0.00097	0.00449	<0.000020	<0.000050	<0.010	0.000008	11.6	<0.00050
Fawnie Creek	FC-01	Surface	Primary	VA23A8158-005	4/13/2023	0.000127	0.00058	<0.0030	0.0064	<0.00010	0.00096	0.00457	<0.000020	<0.000050	<0.010	<0.0000050	13.8	<0.00050
Fawnie Creek	FC-01	Surface	Primary	VA23A6844-004	3/27/2023	0.000124	0.00068	<0.0030	0.006	<0.00010	0.00099	0.00463	<0.000020	<0.000050	<0.010	0.0000058	14	<0.00050
Fawnie Creek	FC-01	Surface	Primary	VA23A3268-006	2/9/2023	0.000099	0.00052	<0.0030	0.0061	<0.00010	0.00097	0.00453	<0.000020	<0.000050	<0.010	<0.0000050	12.4	<0.00050
Fawnie Creek	FC-01	Surface	Duplicate	VA23A3268-007	2/9/2023	0.000096	0.00055	<0.0030	0.0054	<0.00010	0.00088	0.00442	<0.000020	<0.000050	<0.010	<0.0000050	12.7	<0.00050
Fawnie Creek	FC-01	Surface	Primary	VA23A1264-001	1/17/2023	0.000094	0.0005	<0.0030	0.0058	<0.00010	0.00089	0.00446	<0.000020	<0.000050	<0.010	<0.0000050	13.2	<0.00050
Field Blank	-	-	-	VA23C9661-007	12/7/2023	<0.000010	<0.00050	<0.0030	<0.0010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000050	<0.010	<0.0000050	<0.050	<0.00050
Field Blank	-	-	-	VA23C6498-007	11/1/2023	<0.000010	<0.00050	<0.0030	<0.0010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000050	<0.010	<0.0000050	<0.050	<0.00050
Field Blank	-	-	-	VA23C5771-006	10/24/2023	<0.000010	<0.00050	<0.0030	<0.0010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000050	<0.010	<0.0000050	<0.050	<0.00050
Field Blank	-	-	-	VA23C5184-006	10/20/2023	<0.000010	<0.00050	<0.0030	<0.0010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000050	<0.010	<0.0000050	<0.050	<0.00050
Field Blank	-	-	-	VA23C4458-005	10/11/2023	<0.000010	<0.00050	<0.0030	<0.0010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000050	<0.010	<0.0000050	<0.050	<0.00050
Field Blank	-	-	-	VA23C3871-005	10/4/2023	<0.000010	<0.00050	<0.0030	0.0012	<0.00010	<0.00010	<0.00010	<0.000020	<0.000050	<0.010	<0.0000050	<0.050	<0.00050

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Total Metals *(cont'd)*			Dissolved Metals									
						Uranium (U)-Total	Vanadium (V)-Total	Zinc (Zn)-Total	Aluminum (Al)-Dissolved	Antimony (Sb)-Dissolved	Arsenic (As)-Dissolved	Barium (Ba)-Dissolved	Beryllium (Be)-Dissolved	Bismuth (Bi)-Dissolved	Boron (B)-Dissolved	Cadmium (Cd)-Dissolved	Calcium (Ca)-Dissolved	Chromium (Cr)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Field Blank	-	-	-	VA23C1854-004	9/13/2023	<0.000010	<0.00050	<0.0030	<0.0010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000050	<0.010	<0.0000050	<0.050	<0.00050
Field Blank	-	-	-	VA23B8906-009	8/15/2023	<0.000010	<0.00050	<0.0030	<0.0010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000050	<0.010	<0.0000050	<0.050	<0.00050
Field Blank	-	-	-	VA23B7293-002	7/25/2023	<0.000010	<0.00050	<0.0030	<0.0010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000050	<0.010	<0.0000050	<0.050	<0.00050
Field Blank	-	-	-	VA23B4330-008	6/21/2023	<0.000010	<0.00050	<0.0030	<0.0010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000050	<0.010	<0.0000050	<0.050	<0.00050
Field Blank	-	-	-	VA23B2219-006	5/30/2023	<0.000010	<0.00050	<0.0030	<0.0010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000050	<0.010	<0.0000050	<0.050	<0.00050
Field Blank	-	-	-	VA23B1379-003	5/22/2023	<0.000010	<0.00050	<0.0030	<0.0010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000050	<0.010	<0.0000050	<0.050	<0.00050
Field Blank	-	-	-	VA23B1108-006	5/17/2023	<0.000010	<0.00050	<0.0030	<0.0010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000050	<0.010	<0.0000050	<0.050	<0.00050
Field Blank	-	-	-	VA23B0222-007	5/9/2023	<0.000010	<0.00050	<0.0030	<0.0010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000050	<0.010	<0.0000050	<0.050	<0.00050
Field Blank	-	-	-	VA23A9893-005	5/4/2023	<0.000010	<0.00050	<0.0030	<0.0010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000050	<0.010	<0.0000050	<0.050	<0.00050
Field Blank	-	-	-	VA23A7852-006	4/11/2023	<0.000010	<0.00050	<0.0030	<0.0010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000050	<0.010	<0.0000050	<0.050	<0.00050
Field Blank	-	-	-	VA23A6097-006	3/20/2023	<0.000010	<0.00050	<0.0030	<0.0010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000050	<0.010	<0.0000050	<0.050	<0.00050
Field Blank	-	-	-	VA23A3035-002	2/7/2023	<0.000010	<0.00050	<0.0030	<0.0010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000050	<0.010	<0.0000050	<0.050	<0.00050
Field Blank	-	-	-	VA23A1261-004	1/17/2023	<0.000010	<0.00050	<0.0030	<0.0010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000050	<0.010	<0.0000050	<0.050	<0.00050
Travel Blank	-	-	-	VA23D0165-001	12/14/2023	<0.000010	<0.00050	<0.0030	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C7190-012	11/9/2023	<0.000010	<0.00050	<0.0030	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C5894-006	10/25/2023	<0.000010	<0.00050	<0.0030	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C5184-007	10/20/2023	<0.000010	<0.00050	<0.0030	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C5293-008	10/19/2023	0.000071	<0.00050	0.0236	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C4586-007	10/14/2023	<0.000010	<0.00050	<0.0030	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C4014-012	10/6/2023	<0.000010	<0.00050	<0.0030	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C2546-006	9/20/2023	<0.000010	<0.00050	<0.0030	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C0762-005	8/31/2023	<0.000010	<0.00050	<0.0030	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23B7734-008	7/31/2023	<0.000010	<0.00050	<0.0030	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23B4330-009	6/21/2023	<0.000010	<0.00050	<0.0030	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23B2224-005	5/31/2023	<0.000010	<0.00050	<0.0030	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23B1690-012	5/24/2023	<0.000010	<0.00050	<0.0030	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23B1108-007	5/17/2023	<0.000010	<0.00050	<0.0030	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23A9893-006	5/4/2023	<0.000010	<0.00050	<0.0030	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23A9322-002	4/28/2023	<0.000010	<0.00050	<0.0030	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23A6844-009	3/28/2023	<0.000010	<0.00050	<0.0030	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23A4552-003	2/28/2023	<0.000010	<0.00050	<0.0030	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23A1890-005	1/25/2023	<0.000010	<0.00050	<0.0030	-	-	-	-	-	-	-	-	-	-

Notes:
"-" indicates parameter was not analyzed.
"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Dissolved Metals *(cont'd)*												
						Cobalt (Co)-Dissolved	Copper (Cu)-Dissolved	Iron (Fe)-Dissolved	Lead (Pb)-Dissolved	Lithium (Li)-Dissolved	Magnesium (Mg)-Dissolved	Manganese (Mn)-Dissolved	Mercury (Hg)-Dissolved	Molybdenum (Mo)-Dissolved	Nickel (Ni)-Dissolved	Phosphorus (P)-Dissolved	Potassium (K)-Dissolved	Selenium (Se)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23C6622-009	11/2/2023	<0.00010	<0.00020	0.017	<0.000050	<0.0010	5.62	0.0298	<0.0000050	0.000539	<0.00050	<0.050	0.852	<0.000050
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23C6622-008	11/2/2023	<0.00010	<0.00020	0.017	<0.000050	<0.0010	5.69	0.0303	<0.0000050	0.000555	<0.00050	<0.050	0.858	<0.000050
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23C6622-007	11/2/2023	<0.00010	<0.00020	0.017	<0.000050	<0.0010	5.6	0.0297	<0.0000050	0.000597	<0.00050	<0.050	0.839	<0.000050
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23C1854-001	9/13/2023	<0.00010	<0.00020	0.023	<0.000050	<0.0010	5.52	0.00875	<0.0000050	0.000538	<0.00050	<0.050	0.9	<0.000050
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23C1854-002	9/13/2023	<0.00010	<0.00020	0.028	<0.000050	<0.0010	5.35	0.0112	<0.0000050	0.000546	<0.00050	<0.050	0.878	<0.000050
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23C1854-003	9/13/2023	<0.00010	<0.00020	0.034	<0.000050	<0.0010	5.44	0.0605	<0.0000050	0.000544	<0.00050	<0.050	0.89	<0.000050
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23B2052-008	5/29/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	5.12	0.0012	<0.0000050	0.000512	<0.00050	<0.050	0.808	<0.000050
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23B2052-007	5/29/2023	<0.00010	<0.00020	0.013	<0.000050	<0.0010	5.12	0.00584	<0.0000050	0.000593	<0.00050	<0.050	0.784	<0.000050
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23B2052-006	5/29/2023	<0.00010	<0.00020	0.14	<0.000050	<0.0010	5.24	0.295	0.0000083	0.000435	<0.00050	<0.050	0.832	<0.000050
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23A3692-003	2/15/2023	<0.00010	<0.00020	0.01	<0.000050	<0.0010	5.27	0.00246	<0.0000050	0.000581	<0.00050	<0.050	0.855	<0.000050
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23A3692-002	2/15/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	5.17	0.00699	<0.0000050	0.000529	<0.00050	<0.050	0.829	<0.000050
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23A3692-001	2/15/2023	<0.00010	<0.00020	0.183	<0.000050	<0.0010	5.45	0.454	<0.0000050	0.000502	<0.00050	<0.050	0.907	<0.000050
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23C5293-003	10/19/2023	<0.00010	0.00031	<0.010	<0.000050	<0.0010	4.78	0.00159	<0.0000050	0.000618	<0.00050	<0.050	0.859	<0.000050
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23C5293-002	10/19/2023	<0.00010	0.00032	<0.010	<0.000050	<0.0010	4.95	0.00182	<0.0000050	0.000601	<0.00050	<0.050	0.879	0.000055
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23C5293-001	10/19/2023	<0.00010	0.00027	0.013	<0.000050	<0.0010	4.86	0.00084	<0.0000050	0.000542	<0.00050	<0.050	0.89	0.000056
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23C0266-003	8/28/2023	<0.00010	0.00032	<0.010	<0.000050	<0.0010	4.47	0.00087	0.0000092	0.000574	<0.00050	<0.050	0.808	0.000052
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23C0266-002	8/28/2023	<0.00010	0.00028	<0.010	<0.000050	<0.0010	4.47	0.00058	<0.0000050	0.000555	<0.00050	<0.050	0.832	0.000058
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23C0266-001	8/28/2023	<0.00010	0.00024	0.014	<0.000050	<0.0010	4.72	0.00058	<0.0000050	0.000532	<0.00050	<0.050	0.887	0.000088
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23B1690-011	5/24/2023	<0.00010	0.00034	0.011	<0.000050	<0.0010	4.28	0.00063	<0.0000050	0.000512	<0.00050	<0.050	0.767	<0.000050
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23B1690-010	5/24/2023	<0.00010	0.00039	0.011	<0.000050	<0.0010	4.5	0.00045	<0.0000050	0.000502	<0.00050	<0.050	0.788	<0.000050
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23B1690-009	5/24/2023	<0.00010	0.00027	<0.010	<0.000050	<0.0010	4.61	0.00057	<0.0000050	0.000545	<0.00050	<0.050	0.801	0.000059
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23A3177-007	2/8/2023	<0.00010	0.00031	<0.010	<0.000050	<0.0010	4.76	0.00028	<0.0000050	0.000537	<0.00050	<0.050	0.802	<0.000050
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23A3177-006	2/8/2023	<0.00010	0.00027	<0.010	<0.000050	<0.0010	4.66	0.00023	<0.0000050	0.00053	<0.00050	<0.050	0.784	0.000058
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23A3177-005	2/8/2023	<0.00010	0.0003	0.015	<0.000050	<0.0010	4.66	0.0054	<0.0000050	0.000557	<0.00050	<0.050	0.805	0.000058
Davidson Creek	DC-05	Surface	Primary	VA23D0155-002	12/15/2023	<0.00010	0.00025	0.055	<0.000050	<0.0010	2.18	0.00229	<0.0000050	0.000641	<0.00050	<0.050	0.572	0.000055
Davidson Creek	DC-05	Surface	Primary	VA23C7190-002	11/8/2023	<0.00010	0.00033	0.076	<0.000050	<0.0010	1.85	0.00414	<0.0000050	0.00054	<0.00050	<0.050	0.668	<0.000050
Davidson Creek	DC-05	Surface	Primary	VA23C6383-003	10/31/2023	<0.00010	<0.00020	0.057	<0.000050	<0.0010	2.58	0.00327	<0.0000050	0.00077	<0.00050	<0.050	0.602	0.000054
Davidson Creek	DC-05	Surface	Primary	VA23C5894-001	10/25/2023	<0.00010	0.00025	0.076	<0.000050	<0.0010	2.65	0.0042	<0.0000050	0.000798	<0.00050	<0.050	0.637	0.000073
Davidson Creek	DC-05	Surface	Primary	VA23C4858-003	10/16/2023	<0.00010	0.00021	0.072	<0.000050	<0.0010	2.43	0.00244	<0.0000050	0.00079	<0.00050	<0.050	0.655	<0.000050
Davidson Creek	DC-05	Surface	Primary	VA23C4586-001	10/14/2023	<0.00010	0.00026	0.059	<0.000050	<0.0010	2.48	0.00283	<0.0000050	0.000777	<0.00050	<0.050	0.62	0.000063
Davidson Creek	DC-05	Surface	Duplicate	VA23C4586-002	10/14/2023	<0.00010	0.00026	0.06	<0.000050	<0.0010	2.44	0.00277	<0.0000050	0.000803	<0.00050	<0.050	0.619	0.00007
Davidson Creek	DC-05	Surface	Primary	VA23C4014-002	10/5/2023	<0.00010	0.00031	0.099	<0.000050	<0.0010	2.07	0.00332	<0.0000050	0.000728	<0.00050	<0.050	0.647	0.000059
Davidson Creek	DC-05	Surface	Primary	VA23C0875-003	9/4/2023	<0.00010	0.00025	0.051	<0.000050	<0.0010	2.06	0.00207	<0.0000050	0.000716	<0.00050	<0.050	0.651	<0.000050
Davidson Creek	DC-05	Surface	Primary	VA23B9219-002	8/16/2023	<0.00010	0.00034	0.131	<0.000050	<0.0010	1.79	0.00274	<0.0000050	0.000733	<0.00050	<0.050	0.804	0.000054
Davidson Creek	DC-05	Surface	Primary	VA23B7293-008	7/25/2023	<0.00010	0.00052	0.079	<0.000050	<0.0010	1.94	0.0038	<0.0000050	0.000388	<0.00050	<0.050	1.16	<0.000050
Davidson Creek	DC-05	Surface	Primary	VA23B4181-003	6/21/2023	<0.00010	0.00042	0.07	<0.000050	<0.0010	1.28	0.00212	0.0000072	0.000473	<0.00050	<0.050	0.355	<0.000050
Davidson Creek	DC-05	Surface	Primary	VA23B2052-005	5/29/2023	<0.00010	0.0004	0.056	<0.000050	<0.0010	0.942	0.00182	<0.0000050	0.000353	<0.00050	<0.050	0.308	<0.000050
Davidson Creek	DC-05	Surface	Primary	VA23B1529-005	5/23/2023	<0.00010	0.0005	0.074	<0.000050	<0.0010	0.758	0.00179	0.000006	0.000248	<0.00050	<0.050	0.289	<0.000050
Davidson Creek	DC-05	Surface	Primary	VA23B0766-010	5/16/2023	<0.00010	0.00057	0.087	<0.000050	<0.0010	0.555	0.00252	0.0000102	0.000163	<0.00050	<0.050	0.29	<0.000050
Davidson Creek	DC-05	Surface	Primary	VA23B0222-006	5/9/2023	<0.00010	0.0007	0.158	<0.000050	<0.0010	0.698	0.00633	0.0000103	0.000185	<0.00050	<0.050	0.457	<0.000050
Davidson Creek	DC-05	Surface	Primary	VA23A9893-002	5/4/2023	<0.00010	0.00089	0.241	0.000072	<0.0010	0.906	0.0104	0.0000139	0.000216	<0.00050	<0.050	0.736	<0.000050
Davidson Creek	DC-05	Surface	Primary	VA23A7852-002	4/11/2023	<0.00010	<0.00020	0.02	<0.000050	<0.0010	3.11	0.00143	<0.0000050	0.000947	<0.00050	<0.050	0.512	0.000072
Davidson Creek	DC-05	Surface	Primary	VA23A5627-002	3/14/2023	<0.00010	<0.00020	0.021	<0.000050	<0.0010	3.5	0.00156	<0.0000050	0.000974	<0.00050	<0.050	0.535	0.000081
Davidson Creek	DC-05	Surface	Primary	VA23A2861-004	2/6/2023	<0.00010	<0.00020	0.021	<0.000050	<0.0010	2.97	0.00142	<0.0000050	0.00086	<0.00050	<0.050	0.476	0.000067
Davidson Creek	DC-05	Surface	Primary	VA23A1261-002	1/17/2023	<0.00010	<0.00020	0.024	<0.000050	<0.0010	2.69	0.00198	<0.0000050	0.000905	<0.00050	<0.050	0.485	0.000078
Davidson Creek	DC-05	Surface	Duplicate	VA23A1261-005	1/17/2023	<0.00010	<0.00020	0.024	<0.000050	<0.0010	2.77	0.00197	<0.0000050	0.000964	<0.00050	<0.050	0.485	0.000082

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Dissolved Metals *(cont'd)*												
						Cobalt (Co)-Dissolved	Copper (Cu)-Dissolved	Iron (Fe)-Dissolved	Lead (Pb)-Dissolved	Lithium (Li)-Dissolved	Magnesium (Mg)-Dissolved	Manganese (Mn)-Dissolved	Mercury (Hg)-Dissolved	Molybdenum (Mo)-Dissolved	Nickel (Ni)-Dissolved	Phosphorus (P)-Dissolved	Potassium (K)-Dissolved	Selenium (Se)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Davidson Creek	DC-10	Surface	Primary	VA23D0155-003	12/15/2023	<0.00010	0.00022	0.047	<0.000050	<0.0010	2.25	0.00159	<0.0000050	0.000678	<0.00050	<0.050	0.569	0.000051
Davidson Creek	DC-10	Surface	Duplicate	VA23D0155-004	12/15/2023	<0.00010	0.00021	0.05	<0.000050	<0.0010	2.31	0.00163	<0.0000050	0.000686	<0.00050	<0.050	0.581	<0.000050
Davidson Creek	DC-10	Surface	Primary	VA23C7190-003	11/8/2023	<0.00010	0.00036	0.068	<0.000050	<0.0010	1.95	0.00274	<0.0000050	0.000617	<0.00050	<0.050	0.647	<0.000050
Davidson Creek	DC-10	Surface	Primary	VA23C4014-003	10/5/2023	<0.00010	0.00027	0.081	<0.000050	<0.0010	2.2	0.00252	<0.0000050	0.000742	<0.00050	<0.050	0.646	<0.000050
Davidson Creek	DC-10	Surface	Primary	VA23C2388-003	9/19/2023	<0.00010	<0.00040	0.04	<0.000050	<0.0010	2.33	0.00229	<0.0000050	0.000773	<0.00050	<0.050	0.625	<0.000050
Davidson Creek	DC-10	Surface	Primary	VA23B9219-003	8/16/2023	<0.00010	0.00033	0.102	<0.000050	<0.0010	1.86	0.00262	<0.0000050	0.000948	<0.00050	<0.050	0.776	<0.000050
Davidson Creek	DC-10	Surface	Primary	VA23B7293-007	7/25/2023	<0.00010	0.0005	0.071	<0.000050	<0.0010	1.95	0.00344	<0.0000050	0.000406	<0.00050	<0.050	1.09	<0.000050
Davidson Creek	DC-10	Surface	Primary	VA23B4181-004	6/21/2023	<0.00010	0.00039	0.062	<0.000050	<0.0010	1.24	0.00174	<0.0000050	0.000425	<0.00050	<0.050	0.349	<0.000050
Davidson Creek	DC-10	Surface	Primary	VA23A9893-003	5/4/2023	<0.00010	0.00086	0.239	0.000074	<0.0010	0.925	0.00933	0.0000128	0.000209	<0.00050	<0.050	0.719	<0.000050
Davidson Creek	DC-10	Surface	Primary	VA23A7852-003	4/11/2023	<0.00010	<0.00020	0.013	<0.000050	<0.0010	3.19	0.00144	<0.0000050	0.00101	<0.00050	<0.050	0.526	0.000089
Davidson Creek	DC-10	Surface	Primary	VA23A5627-003	3/14/2023	<0.00010	<0.00020	0.014	<0.000050	<0.0010	3.39	0.00122	<0.0000050	0.00099	<0.00050	<0.050	0.526	0.000074
Davidson Creek	DC-10	Surface	Primary	VA23A2861-005	2/6/2023	<0.00010	<0.00020	0.015	<0.000050	<0.0010	3.1	0.00179	<0.0000050	0.000881	<0.00050	<0.050	0.481	<0.000050
Davidson Creek	DC-10	Surface	Duplicate	VA23A2861-006	2/6/2023	<0.00010	<0.00020	0.015	<0.000050	<0.0010	3.07	0.0017	<0.0000050	0.000858	<0.00050	<0.050	0.482	0.000062
Davidson Creek	DC-10	Surface	Primary	VA23A1261-003	1/17/2023	<0.00010	<0.00020	0.021	<0.000050	<0.0010	2.83	0.00384	<0.0000050	0.00096	<0.00050	<0.050	0.49	0.000062
Davidson Creek	DC-15	Surface	Primary	VA23D0155-005	12/15/2023	<0.00010	<0.00020	0.028	<0.000050	<0.0010	2.94	0.00217	<0.0000050	0.000714	<0.00050	<0.050	0.591	<0.000050
Davidson Creek	DC-15	Surface	Primary	VA23C7190-004	11/8/2023	<0.00010	0.00028	0.058	<0.000050	<0.0010	2.54	0.00347	<0.0000050	0.000626	<0.00050	<0.050	0.616	<0.000050
Davidson Creek	DC-15	Surface	Primary	VA23C4279-006	10/10/2023	<0.00010	0.00024	0.038	<0.000050	<0.0010	3.16	0.00313	<0.0000050	0.00078	<0.00050	<0.050	0.708	<0.000050
Davidson Creek	DC-15	Surface	Primary	VA23C2388-004	9/19/2023	<0.00010	<0.00040	0.026	<0.000050	<0.0010	2.88	0.00245	<0.0000050	0.000781	<0.00050	<0.050	0.66	<0.000050
Davidson Creek	DC-15	Surface	Primary	VA23B9219-004	8/16/2023	<0.00010	0.00028	0.062	<0.000050	<0.0010	2.33	0.00253	<0.0000050	0.000673	<0.00050	<0.050	0.726	0.000054
Davidson Creek	DC-15	Surface	Primary	VA23B7293-006	7/25/2023	<0.00010	0.00041	0.058	<0.000050	<0.0010	2.06	0.00488	<0.0000050	0.000515	<0.00050	<0.050	0.782	<0.000050
Davidson Creek	DC-15	Surface	Duplicate	VA23B7293-011	7/25/2023	<0.00010	0.00047	0.059	<0.000050	<0.0010	2.1	0.005	<0.0000050	0.000449	<0.00050	<0.050	0.804	0.000064
Davidson Creek	DC-15	Surface	Primary	VA23B4181-005	6/21/2023	<0.00010	0.00037	0.047	<0.000050	<0.0010	1.65	0.00198	<0.0000050	0.000511	<0.00050	<0.050	0.421	<0.000050
Davidson Creek	DC-15	Surface	Primary	VA23A9893-004	5/4/2023	<0.00010	0.00087	0.231	0.000064	<0.0010	1.13	0.00755	0.0000137	0.000259	<0.00050	<0.050	0.73	0.000088
Davidson Creek	DC-15	Surface	Primary	VA23A9076-001	4/25/2023	<0.00010	<0.00020	0.029	<0.000050	<0.0010	3.68	0.00391	<0.0000050	0.000821	<0.00050	<0.050	0.766	<0.000050
Davidson Creek	DC-15	Surface	Primary	VA23A5821-002	3/15/2023	<0.00010	<0.00020	0.012	<0.000050	<0.0010	3.78	0.00225	<0.0000050	0.000934	<0.00050	<0.050	0.565	0.000052
Davidson Creek	DC-15	Surface	Primary	VA23A2670-003	2/4/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	3.76	0.0027	<0.0000050	0.000866	<0.00050	<0.050	0.568	<0.000050
Davidson Creek	DC-15	Surface	Duplicate	VA23A2670-004	2/4/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	3.82	0.00263	<0.0000050	0.000861	<0.00050	<0.050	0.552	<0.000050
Davidson Creek	DC-15	Surface	Primary	VA23A1491-004	1/19/2023	<0.00010	<0.00020	0.014	<0.000050	<0.0010	3.7	0.00528	<0.0000050	0.000925	<0.00050	<0.050	0.55	<0.000050
Davidson Creek	DC-20	Surface	Primary	VA23C9626-004	12/6/2023	<0.00010	0.00022	0.103	<0.000050	<0.0010	3.12	0.017	<0.0000050	0.000704	<0.00050	<0.050	0.582	<0.000050
Davidson Creek	DC-20	Surface	Primary	VA23C6498-006	11/1/2023	<0.00010	<0.00020	0.17	<0.000050	<0.0010	3.52	0.0282	<0.0000050	0.00068	<0.00050	<0.050	0.617	<0.000050
Davidson Creek	DC-20	Surface	Primary	VA23C5771-005	10/24/2023	<0.00010	0.00024	0.19	<0.000050	<0.0010	3.19	0.0213	<0.0000050	0.000696	<0.00050	<0.050	0.58	<0.000050
Davidson Creek	DC-20	Surface	Primary	VA23C5184-002	10/20/2023	<0.00010	0.00023	0.192	<0.000050	<0.0010	3.96	0.0207	<0.0000050	0.000792	<0.00050	<0.050	0.785	<0.000050
Davidson Creek	DC-20	Surface	Duplicate	VA23C5184-003	10/20/2023	<0.00010	0.00023	0.197	<0.000050	<0.0010	3.85	0.0205	<0.0000050	0.000809	<0.00050	<0.050	0.761	<0.000050
Davidson Creek	DC-20	Surface	Primary	VA23C4458-004	10/11/2023	<0.00010	0.00025	0.214	<0.000050	<0.0010	3.63	0.018	<0.0000050	0.000785	<0.00050	<0.050	0.724	<0.000050
Davidson Creek	DC-20	Surface	Primary	VA23C3871-006	10/4/2023	<0.00010	0.00021	0.221	<0.000050	<0.0010	3.44	0.0182	<0.0000050	0.000783	<0.00050	<0.050	0.742	<0.000050
Davidson Creek	DC-20	Surface	Primary	VA23C2546-001	9/20/2023	<0.00010	0.00026	0.213	<0.000050	<0.0010	3.3	0.0172	<0.0000050	0.000775	<0.00050	<0.050	0.747	0.00005
Davidson Creek	DC-20	Surface	Duplicate	VA23C2546-002	9/20/2023	<0.00010	0.00026	0.216	<0.000050	<0.0010	3.28	0.0174	<0.0000050	0.000768	<0.00050	<0.050	0.758	<0.000050
Davidson Creek	DC-20	Surface	Primary	VA23B9723-001	8/22/2023	<0.00010	0.00032	0.21	<0.000050	<0.0010	2.9	0.0126	<0.0000050	0.000761	<0.00050	<0.050	0.739	0.000069
Davidson Creek	DC-20	Surface	Primary	VA23B7734-005	7/31/2023	<0.00010	0.00041	0.135	<0.000050	<0.0010	2.57	0.011	<0.0000050	0.000593	<0.00050	<0.050	0.692	0.000058
Davidson Creek	DC-20	Surface	Primary	VA23B2847-003	6/6/2023	<0.00010	0.0004	0.088	<0.000050	<0.0010	2.02	0.00896	<0.0000050	0.000542	<0.00050	<0.050	0.477	<0.000050
Davidson Creek	DC-20	Surface	Primary	VA23B2219-004	5/30/2023	<0.00010	0.00046	0.081	<0.000050	<0.0010	1.6	0.00758	<0.0000050	0.0005	<0.00050	<0.050	0.439	0.000059
Davidson Creek	DC-20	Surface	Primary	VA23B1690-002	5/24/2023	<0.00010	0.0005	0.082	<0.000050	<0.0010	1.28	0.00663	<0.0000050	0.000353	<0.00050	<0.050	0.398	<0.000050
Davidson Creek	DC-20	Surface	Primary	VA23B1108-005	5/17/2023	<0.00010	0.0006	0.098	<0.000050	<0.0010	0.934	0.00568	0.0000081	0.000276	<0.00050	<0.050	0.353	0.000051
Davidson Creek	DC-20	Surface	Primary	VA23B0508-005	5/11/2023	<0.00010	0.00066	0.123	<0.000050	<0.0010	1.07	0.00574	0.0000097	0.000236	<0.00050	<0.050	0.451	0.000062
Davidson Creek	DC-20	Surface	Primary	VA23A9782-004	5/3/2023	<0.00010	0.00081	0.191	<0.000050	<0.0010	1.74	0.0187	0.0000079	0.00033	<0.00050	<0.050	0.848	<0.000050
Davidson Creek	DC-20	Surface	Primary	VA23A9207-003	4/26/2023	<0.00010	0.00024	0.111	<0.000050	<0.0010	3.58	0.0267	<0.0000050	0.000649	<0.00050	<0.050	0.916	0.000055

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Dissolved Metals *(cont'd)*												
						Cobalt (Co)-Dissolved	Copper (Cu)-Dissolved	Iron (Fe)-Dissolved	Lead (Pb)-Dissolved	Lithium (Li)-Dissolved	Magnesium (Mg)-Dissolved	Manganese (Mn)-Dissolved	Mercury (Hg)-Dissolved	Molybdenum (Mo)-Dissolved	Nickel (Ni)-Dissolved	Phosphorus (P)-Dissolved	Potassium (K)-Dissolved	Selenium (Se)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Davidson Creek	DC-20	Surface	Primary	VA23A6097-005	3/20/2023	<0.00010	<0.00020	0.09	<0.000050	<0.0010	4.29	0.0193	<0.0000050	0.000967	<0.00050	<0.050	0.587	0.000052
Davidson Creek	DC-20	Surface	Primary	VA23A3560-002	2/14/2023	<0.00010	<0.00020	0.09	<0.000050	<0.0010	4.05	0.021	<0.0000050	0.000868	<0.00050	<0.050	0.565	<0.000050
Davidson Creek	DC-20	Surface	Primary	VA23A1889-001	1/24/2023	<0.00010	0.0004	0.08	<0.000050	<0.0010	4.41	0.0196	<0.0000050	0.000892	<0.00050	<0.050	0.686	<0.000050
Turtle Creek	TC-01	Surface	Primary	VA23D0165-002	12/14/2023	<0.00010	<0.00020	0.015	<0.000050	<0.0010	4.75	0.00768	<0.0000050	0.000435	<0.00050	<0.050	0.729	0.000054
Turtle Creek	TC-01	Surface	Primary	VA23C6880-003	11/6/2023	<0.00010	<0.00020	0.013	<0.000050	<0.0010	4.15	0.00642	<0.0000050	0.000574	<0.00050	<0.050	0.715	<0.000050
Turtle Creek	TC-01	Surface	Primary	VA23C4014-009	10/6/2023	<0.00010	<0.00020	0.031	<0.000050	<0.0010	4.21	0.00727	<0.0000050	0.000434	<0.00050	<0.050	0.707	0.000061
Turtle Creek	TC-01	Surface	Primary	VA23C1674-003	9/12/2023	<0.00010	<0.00020	0.045	<0.000050	<0.0010	4.31	0.00947	<0.0000050	0.000476	<0.00050	<0.050	0.75	0.000067
Turtle Creek	TC-01	Surface	Primary	VA23B8906-007	8/15/2023	<0.00010	<0.00020	0.053	<0.000050	<0.0010	3.94	0.0137	<0.0000050	0.000488	<0.00050	<0.050	0.657	0.000094
Turtle Creek	TC-01	Surface	Primary	VA23B7523-005	7/27/2023	<0.00010	<0.00020	0.038	<0.000050	<0.0010	3.91	0.00948	<0.0000050	0.000514	<0.00050	<0.050	0.648	<0.000050
Turtle Creek	TC-01	Surface	Primary	VA23B4330-002	6/21/2023	<0.00010	0.0002	0.039	<0.000050	<0.0010	3.97	0.0079	<0.0000050	0.000583	<0.00050	<0.050	0.666	0.000074
Turtle Creek	TC-01	Surface	Duplicate	VA23B4330-007	6/21/2023	<0.00010	<0.00020	0.036	<0.000050	<0.0010	3.94	0.00729	<0.0000050	0.00056	<0.00050	<0.050	0.651	0.000078
Turtle Creek	TC-01	Surface	Primary	VA23A9638-003	5/2/2023	<0.00010	<0.00020	0.01	<0.000050	<0.0010	4.04	0.00518	<0.0000050	0.000434	<0.00050	<0.050	0.677	0.000055
Turtle Creek	TC-01	Surface	Primary	VA23A8158-004	4/13/2023	<0.00010	<0.00020	0.02	<0.000050	<0.0010	4.38	0.0046	<0.0000050	0.000402	<0.00050	<0.050	0.7	<0.000050
Turtle Creek	TC-01	Surface	Primary	VA23A5821-003	3/15/2023	<0.00010	<0.00020	0.02	<0.000050	<0.0010	4.28	0.00666	<0.0000050	0.000446	<0.00050	<0.050	0.642	<0.000050
Turtle Creek	TC-01	Surface	Primary	VA23A3268-003	2/10/2023	<0.00010	<0.00020	0.06	<0.000050	<0.0010	4.27	0.0138	<0.0000050	0.000442	<0.00050	<0.050	0.604	<0.000050
Turtle Creek	TC-01	Surface	Primary	VA23A1491-001	1/19/2023	<0.00010	<0.00020	0.031	<0.000050	<0.0010	4.3	0.0115	<0.0000050	0.000459	<0.00050	<0.050	0.615	0.000058
Turtle Creek	TC-05	Surface	Primary	VA23D0165-003	12/14/2023	<0.00010	<0.00020	0.164	<0.000050	<0.0010	6.08	0.0315	<0.0000050	0.000785	<0.00050	<0.050	0.968	0.000083
Turtle Creek	TC-05	Surface	Primary	VA23C6880-004	11/6/2023	<0.00010	<0.00020	0.182	<0.000050	<0.0010	5.39	0.0194	<0.0000050	0.000613	<0.00050	<0.050	1.32	0.000051
Turtle Creek	TC-05	Surface	Primary	VA23C4458-006	10/11/2023	<0.00010	0.00023	0.196	<0.000050	<0.0010	5.61	0.0141	<0.0000050	0.000723	<0.00050	<0.050	1.01	0.000066
Turtle Creek	TC-05	Surface	Primary	VA23C1674-004	9/12/2023	<0.00010	<0.00020	0.234	<0.000050	<0.0010	5.6	0.0133	<0.0000050	0.000776	<0.00050	<0.050	0.817	0.000085
Turtle Creek	TC-05	Surface	Duplicate	VA23C1674-006	9/12/2023	<0.00010	<0.00020	0.232	<0.000050	<0.0010	5.52	0.0129	<0.0000050	0.000762	<0.00050	<0.050	0.782	0.000075
Turtle Creek	TC-05	Surface	Primary	VA23B8906-008	8/15/2023	<0.00010	<0.00020	0.308	<0.000050	<0.0010	4.74	0.0222	<0.0000050	0.000734	<0.00050	<0.050	0.753	0.00006
Turtle Creek	TC-05	Surface	Primary	VA23B4330-003	6/21/2023	<0.00010	0.00024	0.198	<0.000050	<0.0010	4.65	0.013	<0.0000050	0.000643	<0.00050	<0.050	0.699	0.000083
Turtle Creek	TC-05	Surface	Primary	VA23B0364-005	5/10/2023	<0.00010	0.00084	0.216	<0.000050	<0.0010	1.36	0.00516	0.0000087	0.000259	<0.00050	<0.050	0.55	0.000075
Turtle Creek	TC-05	Surface	Primary	VA23A7852-004	4/11/2023	<0.00010	<0.00020	0.241	<0.000050	<0.0010	5.48	0.0287	<0.0000050	0.000788	<0.00050	<0.050	1.31	0.000099
Turtle Creek	TC-05	Surface	Primary	VA23A5821-004	3/15/2023	<0.00010	<0.00020	0.167	<0.000050	<0.0010	5.6	0.0218	<0.0000050	0.000826	<0.00050	<0.050	0.909	0.000073
Turtle Creek	TC-05	Surface	Primary	VA23A3268-002	2/10/2023	<0.00010	<0.00020	0.192	<0.000050	<0.0010	5.21	0.0203	<0.0000050	0.000749	<0.00050	<0.050	0.878	<0.000100
Turtle Creek	TC-05	Surface	Primary	VA23A1491-002	1/19/2023	<0.00010	<0.00020	0.232	<0.000050	<0.0010	5.22	0.0251	<0.0000050	0.000748	<0.00050	<0.050	0.892	0.000105
Turtle Creek	TC-10	Surface	Primary	VA23D0165-004	12/14/2023	<0.00010	<0.00020	0.178	<0.000050	<0.0010	7.08	0.0637	<0.0000050	0.000672	<0.00050	<0.050	1.1	<0.000050
Turtle Creek	TC-10	Surface	Duplicate	VA23D0165-005	12/14/2023	<0.00010	<0.00020	0.146	<0.000050	<0.0010	7.01	0.0628	<0.0000050	0.000681	<0.00050	<0.050	1.09	<0.000050
Turtle Creek	TC-10	Surface	Primary	VA23C6880-005	11/6/2023	<0.00010	<0.00020	0.164	<0.000050	<0.0010	6.33	0.0312	<0.0000050	0.000664	<0.00050	<0.050	1.65	<0.000050
Turtle Creek	TC-10	Surface	Primary	VA23C4014-010	10/6/2023	<0.00010	<0.00020	0.164	<0.000050	<0.0010	6.26	0.016	<0.0000050	0.000686	<0.00050	<0.050	1.12	<0.000050
Turtle Creek	TC-10	Surface	Primary	VA23C1674-005	9/12/2023	<0.00010	<0.00020	0.256	<0.000050	<0.0010	6.37	0.0172	<0.0000050	0.000752	<0.00050	<0.050	0.918	0.000069
Turtle Creek	TC-10	Surface	Primary	VA23C0266-005	8/28/2023	<0.00010	<0.00020	0.212	<0.000050	<0.0010	5.84	0.0183	<0.0000050	0.000731	<0.00050	<0.050	0.931	0.000076
Turtle Creek	TC-10	Surface	Primary	VA23B7293-012	7/25/2023	<0.00010	<0.00020	0.173	<0.000050	<0.0010	5.92	0.0132	<0.0000050	0.000695	<0.00050	<0.050	0.898	<0.000050
Turtle Creek	TC-10	Surface	Primary	VA23B4330-004	6/21/2023	<0.00010	0.00022	0.153	<0.000050	<0.0010	5.44	0.0235	<0.0000050	0.000728	<0.00050	<0.050	0.778	0.00006
Turtle Creek	TC-10	Surface	Primary	VA23A9638-004	5/2/2023	<0.00010	0.00066	0.297	<0.000050	<0.0010	2.64	0.109	<0.0000050	0.000445	<0.00050	<0.050	1.51	0.000066
Turtle Creek	TC-10	Surface	Primary	VA23A7852-005	4/11/2023	<0.00010	<0.00020	0.212	0.000071	<0.0010	6.15	0.0478	<0.0000050	0.000808	<0.00050	<0.050	1.8	0.00008
Turtle Creek	TC-10	Surface	Primary	VA23A5627-004	3/14/2023	<0.00010	<0.00020	0.164	<0.000050	<0.0010	6.78	0.0522	<0.0000050	0.000823	<0.00050	<0.050	1.09	0.000088
Turtle Creek	TC-10	Surface	Primary	VA23A3268-001	2/10/2023	<0.00010	<0.00020	0.178	<0.000050	<0.0010	5.88	0.048	<0.0000050	0.000769	<0.00050	<0.050	1.03	<0.000100
Turtle Creek	TC-10	Surface	Primary	VA23A1111-001	1/16/2023	<0.00010	<0.00020	0.195	<0.000050	<0.0010	6.39	0.0525	<0.0000050	0.000754	<0.00050	<0.050	1.13	0.000062
Turtle Creek	TC-15	Surface	Primary	VA23C6880-006	11/6/2023	<0.00010	<0.00020	0.164	<0.000050	<0.0010	6.04	0.0041	<0.0000050	0.000393	<0.00050	<0.050	1.35	<0.000050
Turtle Creek	TC-15	Surface	Primary	VA23C4014-011	10/6/2023	<0.00010	<0.00020	0.074	<0.000050	<0.0010	6.52	0.00087	<0.0000050	0.000561	<0.00050	<0.050	1.23	<0.000050
Turtle Creek	TC-15	Surface	Primary	VA23C0266-004	8/28/2023	<0.00010	0.00024	0.09	<0.000050	<0.0010	6.44	0.00285	<0.0000050	0.000706	<0.00050	<0.050	1.01	0.000054
Turtle Creek	TC-15	Surface	Primary	VA23B7523-006	7/27/2023	<0.00010	<0.00020	0.085	<0.000050	<0.0010	5.96	0.00198	<0.0000050	0.000644	<0.00050	<0.050	0.714	<0.000050
Turtle Creek	TC-15	Surface	Primary	VA23B4330-005	6/21/2023	<0.00010	0.00025	0.091	<0.000050	<0.0010	5.5	0.00556	<0.0000050	0.00061	<0.00050	<0.050	0.557	<0.000050

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Dissolved Metals *(cont'd)*												
						Cobalt (Co)-Dissolved	Copper (Cu)-Dissolved	Iron (Fe)-Dissolved	Lead (Pb)-Dissolved	Lithium (Li)-Dissolved	Magnesium (Mg)-Dissolved	Manganese (Mn)-Dissolved	Mercury (Hg)-Dissolved	Molybdenum (Mo)-Dissolved	Nickel (Ni)-Dissolved	Phosphorus (P)-Dissolved	Potassium (K)-Dissolved	Selenium (Se)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Turtle Creek	TC-15	Surface	Primary	VA23A9638-005	5/2/2023	<0.00010	0.00039	0.259	<0.000050	<0.0010	3.4	0.022	<0.0000050	0.000537	<0.00050	<0.050	1.87	0.000055
Turtle Creek	TC-15	Surface	Primary	VA23A9207-004	4/26/2023	<0.00010	0.00023	0.262	<0.000050	<0.0010	4.37	0.018	<0.0000050	0.000573	<0.00050	<0.050	1.74	0.000063
Creek 661	661-01	Surface	Primary	VA23C9661-001	12/7/2023	<0.00010	<0.00020	0.1	<0.000050	<0.0010	1.22	0.0203	<0.0000050	0.00022	<0.00050	<0.050	0.288	<0.000050
Creek 661	661-01	Surface	Duplicate	VA23C9661-002	12/7/2023	<0.00010	<0.00020	0.097	<0.000050	<0.0010	1.22	0.0202	<0.0000050	0.000216	<0.00050	<0.050	0.285	<0.000050
Creek 661	661-01	Surface	Primary	VA23C7190-008	11/9/2023	<0.00010	<0.00020	0.045	<0.000050	<0.0010	1.15	0.00674	<0.0000050	0.00019	<0.00050	<0.050	0.293	<0.000050
Creek 661	661-01	Surface	Primary	VA23C6383-001	10/31/2023	<0.00010	<0.00020	0.056	<0.000050	<0.0010	1.26	0.0333	<0.0000050	0.000148	<0.00050	<0.050	0.271	<0.000050
Creek 661	661-01	Surface	Primary	VA23C5894-003	10/25/2023	<0.00010	<0.00020	0.056	<0.000050	<0.0010	1.48	0.029	<0.0000050	0.000144	<0.00050	<0.050	0.294	<0.000050
Creek 661	661-01	Surface	Primary	VA23C4858-001	10/16/2023	<0.00010	<0.00020	0.04	<0.000050	<0.0010	1.16	0.0138	<0.0000050	0.00029	<0.00050	<0.050	0.331	<0.000050
Creek 661	661-01	Surface	Primary	VA23C4586-003	10/14/2023	<0.00010	<0.00020	0.06	<0.000050	<0.0010	1.23	0.0254	<0.0000050	0.000216	<0.00050	<0.050	0.296	<0.000050
Creek 661	661-01	Surface	Primary	VA23C4014-004	10/5/2023	<0.00010	<0.00020	0.042	<0.000050	<0.0010	1.21	0.0117	<0.0000050	0.000258	<0.00050	<0.050	0.337	<0.000050
Creek 661	661-01	Surface	Primary	VA23C0875-002	9/4/2023	<0.00010	<0.00020	0.038	<0.000050	<0.0010	1.08	0.01	<0.0000050	0.00024	<0.00050	<0.050	0.287	<0.000050
Creek 661	661-01	Surface	Primary	VA23B8906-006	8/15/2023	<0.00010	<0.00020	0.044	<0.000050	<0.0010	1.09	0.00992	<0.0000050	0.000207	<0.00050	<0.050	0.28	<0.000050
Creek 661	661-01	Surface	Primary	VA23B7523-004	7/27/2023	<0.00010	<0.00020	0.195	<0.000050	<0.0010	0.925	0.00838	<0.0000050	0.00021	<0.00050	<0.050	0.254	<0.000050
Creek 661	661-01	Surface	Primary	VA23B3687-001	6/14/2023	<0.00010	0.00024	0.055	<0.000050	<0.0010	0.727	0.00542	<0.0000050	0.000173	<0.00050	<0.050	0.201	<0.000050
Creek 661	661-01	Surface	Primary	VA23B2847-004	6/6/2023	<0.00010	0.00027	0.092	<0.000050	<0.0010	0.641	0.00451	<0.0000050	0.000141	<0.00050	<0.050	0.188	<0.000050
Creek 661	661-01	Surface	Primary	VA23B2224-001	5/31/2023	<0.00010	0.0003	0.096	<0.000050	<0.0010	0.569	0.00426	<0.0000050	0.00024	<0.00050	<0.050	0.195	<0.000050
Creek 661	661-01	Surface	Primary	VA23B1379-001	5/22/2023	<0.00010	0.00036	0.112	<0.000050	<0.0010	0.53	0.00335	0.0000051	0.000103	<0.00050	<0.050	0.156	<0.000050
Creek 661	661-01	Surface	Duplicate	VA23B1379-002	5/22/2023	<0.00010	0.00036	0.122	<0.000050	<0.0010	0.523	0.00347	0.0000052	0.000103	<0.00050	<0.050	0.158	<0.000050
Creek 661	661-01	Surface	Primary	VA23B0766-007	5/16/2023	<0.00010	0.00048	0.14	<0.000050	<0.0010	0.439	0.00373	0.0000064	0.000076	<0.00050	<0.050	0.2	<0.000050
Creek 661	661-01	Surface	Primary	VA23A8158-006	4/14/2023	<0.00010	<0.00020	0.079	<0.000050	<0.0010	0.785	0.0102	<0.0000050	0.000131	<0.00050	<0.050	0.191	<0.000050
Creek 661	661-01	Surface	Primary	VA23A6844-007	3/28/2023	<0.00010	<0.00020	0.235	<0.000050	<0.0010	0.814	0.0113	<0.0000050	0.000141	<0.00050	<0.050	0.216	<0.000050
Creek 661	661-01	Surface	Primary	VA23A4552-001	2/28/2023	<0.00010	<0.00020	0.253	<0.000050	<0.0010	0.768	0.00878	<0.0000050	0.000121	<0.00050	<0.050	0.186	<0.000050
Creek 661	661-01	Surface	Primary	VA23A1264-005	1/17/2023	<0.00010	0.00023	0.077	<0.000050	<0.0010	0.6	0.0119	<0.0000050	0.000103	<0.00050	<0.050	0.163	<0.000050
Creek 661	661-04	Surface	Primary	VA23C9661-003	12/7/2023	<0.00010	<0.00020	0.028	<0.000050	<0.0010	2.59	0.0048	<0.0000050	0.000591	<0.00050	<0.050	0.56	<0.000050
Creek 661	661-04	Surface	Primary	VA23C7190-009	11/9/2023	<0.00010	<0.00020	0.038	<0.000050	<0.0010	2.4	0.0044	<0.0000050	0.00052	<0.00050	<0.050	0.588	<0.000050
Creek 661	661-04	Surface	Primary	VA23C6383-002	10/31/2023	<0.00010	<0.00020	0.034	<0.000050	<0.0010	2.65	0.00576	<0.0000050	0.000605	<0.00050	<0.050	0.563	<0.000050
Creek 661	661-04	Surface	Primary	VA23C5894-002	10/25/2023	<0.00010	<0.00020	0.038	<0.000050	<0.0010	2.7	0.00634	<0.0000050	0.000593	<0.00050	<0.050	0.597	<0.000050
Creek 661	661-04	Surface	Primary	VA23C4858-002	10/16/2023	<0.00010	<0.00020	0.04	<0.000050	<0.0010	2.55	0.005	<0.0000050	0.000672	<0.00050	<0.050	0.717	<0.000050
Creek 661	661-04	Surface	Primary	VA23C4586-004	10/14/2023	<0.00010	<0.00020	0.037	<0.000050	<0.0010	2.59	0.00517	<0.0000050	0.000633	<0.00050	<0.050	0.656	<0.000050
Creek 661	661-04	Surface	Primary	VA23C4014-005	10/5/2023	<0.00010	<0.00020	0.04	<0.000050	<0.0010	2.63	0.00438	<0.0000050	0.000674	<0.00050	<0.050	0.712	<0.000050
Creek 661	661-04	Surface	Primary	VA23C1991-004	9/14/2023	<0.00010	<0.00020	0.045	<0.000050	<0.0010	2.6	0.00495	<0.0000050	0.000675	<0.00050	<0.050	0.632	<0.000050
Creek 661	661-04	Surface	Primary	VA23B8906-005	8/14/2023	<0.00010	<0.00020	0.041	<0.000050	<0.0010	2.34	0.00441	<0.0000050	0.000642	<0.00050	<0.050	0.612	<0.000050
Creek 661	661-04	Surface	Primary	VA23B3687-002	6/14/2023	<0.00010	0.00029	0.035	<0.000050	<0.0010	1.62	0.00236	<0.0000050	0.000504	<0.00050	<0.050	0.497	<0.000050
Creek 661	661-04	Surface	Duplicate	VA23B3687-003	6/14/2023	<0.00010	0.00027	0.035	<0.000050	<0.0010	1.6	0.00237	<0.0000050	0.000475	<0.00050	<0.050	0.49	<0.000050
Creek 661	661-04	Surface	Primary	VA23B2847-005	6/6/2023	<0.00010	0.00029	0.031	<0.000050	<0.0010	1.43	0.00189	<0.0000050	0.000374	<0.00050	<0.050	0.469	<0.000050
Creek 661	661-04	Surface	Primary	VA23B2224-002	5/31/2023	<0.00010	0.00036	0.043	<0.000050	<0.0010	1.24	0.00187	<0.0000050	0.000318	<0.00050	<0.050	0.449	<0.000050
Creek 661	661-04	Surface	Primary	VA23B1379-004	5/22/2023	<0.00010	0.00046	0.054	<0.000050	<0.0010	1.02	0.00126	<0.0000050	0.000209	<0.00050	<0.050	0.448	<0.000050
Creek 661	661-04	Surface	Primary	VA23B0766-008	5/16/2023	<0.00010	0.00065	0.072	<0.000050	<0.0010	0.775	0.00133	0.0000065	0.000149	<0.00050	<0.050	0.455	<0.000050
Creek 661	661-04	Surface	Primary	VA23A8158-007	4/14/2023	<0.00010	<0.00020	0.026	<0.000050	<0.0010	2.46	0.00359	<0.0000050	0.000638	<0.00050	<0.050	0.548	<0.000050
Creek 661	661-04	Surface	Primary	VA23A6844-008	3/28/2023	<0.00010	<0.00020	0.026	<0.000050	<0.0010	2.58	0.00335	<0.0000050	0.000677	<0.00050	<0.050	0.552	<0.000050
Creek 661	661-04	Surface	Primary	VA23A3268-009	2/9/2023	<0.00010	<0.00020	0.026	<0.000050	<0.0010	2.3	0.00369	<0.0000050	0.000622	<0.00050	<0.050	0.481	<0.000050
Creek 661	661-04	Surface	Primary	VA23A1264-004	1/17/2023	<0.00010	<0.00020	0.026	<0.000050	<0.0010	2.41	0.00369	<0.0000050	0.000611	<0.00050	<0.050	0.498	<0.000050
Creek 661	661-05	Surface	Primary	VA23C9238-004	12/4/2023	<0.00010	<0.00020	0.059	<0.000050	<0.0010	3.01	0.00553	<0.0000050	0.00084	<0.00050	<0.050	0.555	0.000066
Creek 661	661-05	Surface	Primary	VA23C7190-005	11/8/2023	<0.00010	0.00023	0.029	<0.000050	<0.0010	2.85	0.0028	<0.0000050	0.000774	<0.00050	<0.050	0.613	0.000078
Creek 661	661-05	Surface	Duplicate	VA23C7190-006	11/8/2023	<0.00010	0.00024	0.029	<0.000050	<0.0010	2.82	0.00304	<0.0000050	0.000745	<0.00050	<0.050	0.596	0.00006
Creek 661	661-05	Surface	Primary	VA23C4865-004	10/16/2023	<0.00010	<0.00020	0.083	<0.000050	<0.0010	3.18	0.00661	<0.0000050	0.00083	<0.00050	0.05	0.711	0.000064

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Dissolved Metals *(cont'd)*												
						Cobalt (Co)-Dissolved	Copper (Cu)-Dissolved	Iron (Fe)-Dissolved	Lead (Pb)-Dissolved	Lithium (Li)-Dissolved	Magnesium (Mg)-Dissolved	Manganese (Mn)-Dissolved	Mercury (Hg)-Dissolved	Molybdenum (Mo)-Dissolved	Nickel (Ni)-Dissolved	Phosphorus (P)-Dissolved	Potassium (K)-Dissolved	Selenium (Se)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Creek 661	661-05	Surface	Primary	VA23C1491-002	9/11/2023	<0.00010	<0.00020	0.078	<0.000050	<0.0010	3.12	0.00598	<0.0000050	0.000913	<0.00050	<0.050	0.581	0.000051
Creek 661	661-05	Surface	Primary	VA23B9219-005	8/16/2023	<0.00010	<0.00020	0.129	<0.000050	<0.0010	2.91	0.00647	<0.0000050	0.000857	<0.00050	0.054	0.545	<0.000050
Creek 661	661-05	Surface	Primary	VA23B7293-010	7/25/2023	<0.00010	0.0003	0.115	<0.000050	<0.0010	2.41	0.00516	<0.0000050	0.000646	<0.00050	<0.050	0.515	0.000059
Creek 661	661-05	Surface	Primary	VA23B4181-001	6/21/2023	<0.00010	0.00037	0.098	<0.000050	<0.0010	2.19	0.00399	<0.0000050	0.000739	<0.00050	<0.050	0.448	0.000064
Creek 661	661-05	Surface	Primary	VA23B0766-005	5/15/2023	<0.00010	0.00063	0.112	<0.000050	<0.0010	1.34	0.00297	<0.0000050	0.000365	<0.00050	<0.050	0.466	<0.000050
Creek 661	661-05	Surface	Primary	VA23A9322-001	4/27/2023	<0.00010	<0.00020	0.094	<0.000050	<0.0010	2.73	0.00565	<0.0000050	0.00068	<0.00050	<0.050	0.659	0.000057
Creek 661	661-05	Surface	Primary	VA23A5821-001	3/15/2023	<0.00010	<0.00020	0.039	<0.000050	<0.0010	2.96	0.00346	<0.0000050	0.00085	<0.00050	<0.050	0.526	0.00008
Creek 661	661-05	Surface	Primary	VA23A2670-001	2/4/2023	<0.00010	<0.00020	0.031	<0.000050	<0.0010	3.11	0.00466	<0.0000050	0.00081	<0.00050	<0.050	0.541	0.000066
Creek 661	661-05	Surface	Primary	VA23A1491-003	1/19/2023	<0.00010	<0.00020	0.046	<0.000050	<0.0010	3	0.00502	<0.0000050	0.000836	<0.00050	<0.050	0.533	0.000068
Creek 661	661-03	Surface	Primary	VA23C9238-001	12/4/2023	<0.00010	0.00034	0.06	<0.000050	<0.0010	3.3	0.00694	<0.0000050	0.000224	<0.00050	<0.050	0.323	<0.000050
Creek 661	661-03	Surface	Primary	VA23C6622-002	11/2/2023	<0.00010	<0.00020	0.051	<0.000050	<0.0010	3.94	0.0126	<0.0000050	0.000557	<0.00050	<0.050	0.483	<0.000050
Creek 661	661-03	Surface	Primary	VA23C5577-001	10/23/2023	<0.00010	0.00025	0.063	<0.000050	<0.0010	3.6	0.014	<0.0000050	0.000245	<0.00050	<0.050	0.424	<0.000050
Creek 661	661-03	Surface	Primary	VA23C4865-003	10/16/2023	<0.00010	<0.00020	0.051	<0.000050	<0.0010	5.27	0.0226	<0.0000050	0.000343	<0.00050	<0.050	0.759	<0.000050
Creek 661	661-03	Surface	Primary	VA23C4279-004	10/10/2023	<0.00010	<0.00020	0.06	<0.000050	<0.0010	5.05	0.0267	<0.0000050	0.00107	<0.00050	<0.050	0.713	<0.000050
Creek 661	661-03	Surface	Duplicate	VA23C4279-005	10/10/2023	<0.00010	<0.00020	0.06	<0.000050	<0.0010	5.08	0.0263	<0.0000050	0.000352	<0.00050	<0.050	0.712	<0.000050
Creek 661	661-03	Surface	Primary	VA23C3847-004	10/3/2023	<0.00010	<0.00020	0.06	<0.000050	<0.0010	4.94	0.0253	<0.0000050	0.000337	<0.00050	<0.050	0.753	<0.000050
Creek 661	661-03	Surface	Primary	VA23C1491-001	9/11/2023	<0.00010	<0.00020	0.058	<0.000050	<0.0010	4.92	0.026	<0.0000050	0.000698	<0.00050	<0.050	0.631	<0.000050
Creek 661	661-03	Surface	Primary	VA23B9359-002	8/17/2023	<0.00010	0.00029	0.063	<0.000050	<0.0010	4.02	0.019	<0.0000050	0.000307	<0.00050	<0.050	0.467	<0.000050
Creek 661	661-03	Surface	Primary	VA23B7293-003	7/25/2023	<0.00010	0.0004	0.08	<0.000050	<0.0010	3.12	0.0128	<0.0000050	0.00022	<0.00050	<0.050	0.347	0.000057
Creek 661	661-03	Surface	Primary	VA23B3987-002	6/19/2023	<0.00010	0.00044	0.065	<0.000050	<0.0010	3.08	0.00864	<0.0000050	0.000216	<0.00050	<0.050	0.376	0.000066
Creek 661	661-03	Surface	Primary	VA23B2052-002	5/29/2023	<0.00010	0.00058	0.059	<0.000050	<0.0010	2.21	0.00319	<0.0000050	0.00019	<0.00050	<0.050	0.28	<0.000050
Creek 661	661-03	Surface	Primary	VA23B1529-001	5/23/2023	<0.00010	0.00062	0.058	<0.000050	<0.0010	1.98	0.00276	<0.0000050	0.000192	<0.00050	<0.050	0.307	<0.000050
Creek 661	661-03	Surface	Primary	VA23B0766-004	5/15/2023	<0.00010	0.00074	0.07	<0.000050	<0.0010	1.89	0.004	0.0000053	0.000169	<0.00050	<0.050	0.426	<0.000050
Creek 661	661-03	Surface	Primary	VA23B0222-001	5/9/2023	<0.00010	0.00085	0.139	<0.000050	<0.0010	1.58	0.00426	0.0000095	0.000149	<0.00050	<0.050	0.55	0.000052
Creek 661	661-03	Surface	Duplicate	VA23B0222-002	5/9/2023	<0.00010	0.00089	0.136	<0.000050	<0.0010	1.57	0.00418	0.000008	0.000151	<0.00050	<0.050	0.543	0.000067
Creek 661	661-03	Surface	Primary	VA23A9531-006	5/1/2023	<0.00010	0.00078	0.114	<0.000050	<0.0010	1.84	0.0103	0.0000088	0.000164	<0.00050	<0.050	0.728	<0.000050
Creek 661	661-03	Surface	Primary	VA23A8011-002	4/12/2023	<0.00010	0.00051	0.09	<0.000050	<0.0010	2.88	0.0122	<0.0000050	0.000166	<0.00050	<0.050	0.342	0.000065
Creek 661	661-03	Surface	Primary	VA23A5501-001	3/13/2023	<0.00010	0.00034	0.096	<0.000050	<0.0010	3.32	0.0154	<0.0000050	0.00018	<0.00050	<0.050	0.358	<0.000050
Creek 661	661-03	Surface	Primary	VA23A2712-002	2/1/2023	<0.00010	0.00052	0.089	<0.000050	<0.0010	2.62	0.0102	<0.0000050	0.000129	<0.00050	<0.050	0.315	0.000075
Creek 661	661-10	Surface	Primary	VA23C9238-002	12/4/2023	<0.00010	0.00021	0.108	<0.000050	<0.0010	2.71	0.00608	<0.0000050	0.000512	<0.00050	<0.050	0.512	<0.000050
Creek 661	661-10	Surface	Primary	VA23C6622-001	11/2/2023	<0.00010	<0.00020	0.128	<0.000050	<0.0010	2.54	0.00705	<0.0000050	0.000499	<0.00050	<0.050	0.531	<0.000050
Creek 661	661-10	Surface	Primary	VA23C5577-002	10/23/2023	<0.00010	0.00026	0.156	<0.000050	<0.0010	2.48	0.00593	<0.0000050	0.000557	<0.00050	<0.050	0.548	<0.000050
Creek 661	661-10	Surface	Duplicate	VA23C5577-003	10/23/2023	<0.00010	0.00026	0.156	<0.000050	<0.0010	2.42	0.00593	<0.0000050	0.000555	<0.00050	<0.050	0.545	<0.000050
Creek 661	661-10	Surface	Primary	VA23C4865-005	10/16/2023	<0.00010	0.0003	0.176	<0.000050	<0.0010	2.52	0.00471	<0.0000050	0.000585	<0.00050	<0.050	0.659	0.000052
Creek 661	661-10	Surface	Primary	VA23C4279-003	10/10/2023	<0.00010	0.00031	0.215	<0.000050	<0.0010	2.56	0.00408	<0.0000050	0.000634	<0.00050	<0.050	0.603	<0.000050
Creek 661	661-10	Surface	Primary	VA23C3847-003	10/3/2023	<0.00010	0.00026	0.18	<0.000050	<0.0010	2.51	0.0043	<0.0000050	0.000627	<0.00050	<0.050	0.604	<0.000050
Creek 661	661-10	Surface	Primary	VA23C0875-001	9/4/2023	<0.00010	0.00046	0.223	<0.000050	<0.0010	2.44	0.00511	<0.0000050	0.000647	<0.00050	<0.050	0.542	0.000059
Creek 661	661-10	Surface	Primary	VA23B9359-001	8/17/2023	<0.00010	0.00036	0.183	<0.000050	<0.0010	2.29	0.0049	<0.0000050	0.000576	<0.00050	<0.050	0.564	<0.000050
Creek 661	661-10	Surface	Primary	VA23B7293-001	7/25/2023	<0.00010	0.00036	0.103	<0.000050	<0.0010	2.09	0.00583	<0.0000050	0.000446	<0.00050	<0.050	0.522	<0.000050
Creek 661	661-10	Surface	Primary	VA23B3987-001	6/19/2023	<0.00010	0.00041	0.095	<0.000050	<0.0010	1.64	0.00514	<0.0000050	0.000443	<0.00050	<0.050	0.464	0.000071
Creek 661	661-10	Surface	Primary	VA23B2052-001	5/29/2023	<0.00010	0.00064	0.089	<0.000050	<0.0010	1.19	0.00416	<0.0000050	0.000292	<0.00050	<0.050	0.375	0.000053
Creek 661	661-10	Surface	Primary	VA23B1529-002	5/23/2023	<0.00010	0.00049	0.089	<0.000050	<0.0010	0.997	0.00354	<0.0000050	0.000231	<0.00050	<0.050	0.353	<0.000050
Creek 661	661-10	Surface	Primary	VA23B0766-003	5/15/2023	<0.00010	0.00064	0.097	<0.000050	<0.0010	0.825	0.00411	0.0000065	0.000179	<0.00050	<0.050	0.372	<0.000050
Creek 661	661-10	Surface	Primary	VA23B0222-003	5/9/2023	<0.00010	0.00072	0.182	<0.000050	<0.0010	0.856	0.00872	0.0000087	0.000167	<0.00050	<0.050	0.489	<0.000050
Creek 661	661-10	Surface	Primary	VA23A9531-001	5/1/2023	<0.00010	0.00081	0.199	0.000054	<0.0010	1.81	0.017	0.000006	0.000348	<0.00050	<0.050	0.84	0.000061
Creek 661	661-10	Surface	Primary	VA23A8011-001	4/12/2023	<0.00010	<0.00020	0.055	<0.000050	<0.0010	2.5	0.00544	<0.0000050	0.000626	<0.00050	<0.050	0.508	0.00006

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Dissolved Metals *(cont'd)*												
						Cobalt (Co)-Dissolved	Copper (Cu)-Dissolved	Iron (Fe)-Dissolved	Lead (Pb)-Dissolved	Lithium (Li)-Dissolved	Magnesium (Mg)-Dissolved	Manganese (Mn)-Dissolved	Mercury (Hg)-Dissolved	Molybdenum (Mo)-Dissolved	Nickel (Ni)-Dissolved	Phosphorus (P)-Dissolved	Potassium (K)-Dissolved	Selenium (Se)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Creek 661	661-10	Surface	Duplicate	VA23A8011-005	4/12/2023	<0.00010	<0.00020	0.055	<0.000050	<0.0010	2.52	0.00561	<0.0000050	0.00065	<0.00050	<0.050	0.521	0.000054
Creek 661	661-10	Surface	Primary	VA23A5501-002	3/13/2023	<0.00010	<0.00020	0.047	<0.000050	<0.0010	2.66	0.0056	<0.0000050	0.000687	<0.00050	<0.050	0.494	0.000073
Creek 661	661-10	Surface	Primary	VA23A2712-001	2/1/2023	<0.00010	<0.00020	0.054	<0.000050	<0.0010	2.51	0.00521	<0.0000050	0.000652	<0.00050	<0.050	0.519	0.000054
Creek 661	661-10	Surface	Primary	VA23A0821-002	1/11/2023	<0.00010	<0.00020	0.075	<0.000050	<0.0010	2.6	0.0118	<0.0000050	0.000698	<0.00050	<0.050	0.533	0.000065
Creek 661	661-20	Surface	Primary	VA23C6622-005	11/2/2023	<0.00010	<0.00020	0.098	<0.000050	<0.0010	5.81	0.00381	<0.0000050	0.000898	<0.00050	<0.050	0.812	<0.000050
Creek 661	661-20	Surface	Duplicate	VA23C6622-006	11/2/2023	<0.00010	<0.00020	0.098	<0.000050	<0.0010	5.75	0.00374	<0.0000050	0.000887	<0.00050	<0.050	0.813	<0.000050
Creek 661	661-20	Surface	Primary	VA23C0762-004	8/31/2023	<0.00010	0.00023	0.116	<0.000050	<0.0010	5.94	0.00412	<0.0000050	0.00113	<0.00050	<0.050	0.864	0.000066
Creek 661	661-20	Surface	Primary	VA23B7293-004	7/25/2023	<0.00010	0.00036	0.21	<0.000050	<0.0010	4.86	0.00504	<0.0000050	0.00104	<0.00050	<0.050	0.806	<0.000050
Creek 661	661-20	Surface	Primary	VA23B3987-003	6/19/2023	<0.00010	0.00031	0.11	<0.000050	<0.0010	4.65	0.00525	<0.0000050	0.00093	<0.00050	<0.050	0.848	0.000098
Creek 661	661-20	Surface	Primary	VA23A9531-002	5/1/2023	<0.00010	0.00077	0.209	<0.000050	<0.0010	2.8	0.0119	0.0000055	0.000647	<0.00050	<0.050	1.08	0.00008
Creek 661	661-20	Surface	Primary	VA23A8011-004	4/12/2023	<0.00010	0.00033	0.164	<0.000050	<0.0010	5.05	0.00425	<0.0000050	0.000903	<0.00050	<0.050	0.922	0.000062
Creek 661	661-20	Surface	Primary	VA23A5501-003	3/13/2023	<0.00010	<0.00020	0.086	<0.000050	<0.0010	5.08	0.00289	<0.0000050	0.000903	<0.00050	<0.050	0.745	<0.000050
Creek 661	661-20	Surface	Primary	VA23A2670-002	2/4/2023	<0.00010	<0.00020	0.086	<0.000050	<0.0010	5.08	0.00286	<0.0000050	0.000807	<0.00050	<0.050	0.75	0.000072
Creek 661	661-20	Surface	Primary	VA23A0821-003	1/11/2023	<0.00010	<0.00020	0.129	<0.000050	<0.0010	5.21	0.00398	<0.0000050	0.000901	<0.00050	<0.050	0.759	<0.000050
Creek 661	661-20	Surface	Duplicate	VA23A0821-004	1/11/2023	<0.00010	<0.00020	0.125	<0.000050	<0.0010	5.17	0.00405	<0.0000050	0.000899	<0.00050	<0.050	0.754	0.000073
Chedakuz Creek	CC-03	Surface	Primary	VA23C9238-003	12/4/2023	<0.00010	<0.00020	0.081	<0.000050	<0.0010	9.43	0.00575	<0.0000050	0.00101	<0.00050	<0.050	1.17	0.000054
Chedakuz Creek	CC-03	Surface	Primary	VA23C6622-003	11/2/2023	<0.00010	<0.00020	0.067	<0.000050	<0.0010	9.33	0.00835	<0.0000050	0.000922	<0.00050	<0.050	1.19	<0.000050
Chedakuz Creek	CC-03	Surface	Primary	VA23C5577-004	10/23/2023	<0.00010	<0.00020	0.088	<0.000050	<0.0010	9.87	0.00934	<0.0000050	0.00097	<0.00050	<0.050	1.19	<0.000050
Chedakuz Creek	CC-03	Surface	Primary	VA23C4865-001	10/16/2023	<0.00010	0.00027	0.091	<0.000050	<0.0010	9.43	0.00934	<0.0000050	0.00101	<0.00050	<0.050	1.31	<0.000050
Chedakuz Creek	CC-03	Surface	Primary	VA23C4279-001	10/10/2023	<0.00010	<0.00020	0.083	<0.000050	<0.0010	9.5	0.0103	<0.0000050	0.00106	<0.00050	<0.050	1.3	<0.000050
Chedakuz Creek	CC-03	Surface	Primary	VA23C3847-001	10/3/2023	<0.00010	<0.00020	0.081	<0.000050	<0.0010	9.37	0.0103	<0.0000050	0.00113	<0.00050	<0.050	1.32	<0.000050
Chedakuz Creek	CC-03	Surface	Primary	VA23C1491-003	9/11/2023	<0.00010	<0.00020	0.084	<0.000050	<0.0010	9.22	0.0141	<0.0000050	0.00123	<0.00050	<0.050	1.29	0.000056
Chedakuz Creek	CC-03	Surface	Primary	VA23C0762-002	8/31/2023	<0.00010	<0.00020	0.099	<0.000050	<0.0010	8.67	0.0122	<0.0000050	0.00112	<0.00050	<0.050	1.22	0.000072
Chedakuz Creek	CC-03	Surface	Primary	VA23B7293-005	7/25/2023	<0.00010	0.0002	0.122	<0.000050	<0.0010	7.52	0.0135	<0.0000050	0.000976	<0.00050	<0.050	1.04	0.000054
Chedakuz Creek	CC-03	Surface	Primary	VA23B3987-004	6/19/2023	<0.00010	0.00025	0.111	<0.000050	<0.0010	7.2	0.0236	<0.0000050	0.000964	<0.00050	<0.050	1.07	0.000103
Chedakuz Creek	CC-03	Surface	Primary	VA23B2052-003	5/29/2023	<0.00010	0.00022	0.051	<0.000050	<0.0010	5.38	0.0163	<0.0000050	0.000738	<0.00050	<0.050	0.82	0.00005
Chedakuz Creek	CC-03	Surface	Primary	VA23B1529-003	5/23/2023	<0.00010	0.00022	0.05	<0.000050	<0.0010	5	0.0169	<0.0000050	0.000626	<0.00050	<0.050	0.821	0.000067
Chedakuz Creek	CC-03	Surface	Primary	VA23B0766-001	5/15/2023	<0.00010	0.00044	0.039	<0.000050	<0.0010	4.43	0.00999	<0.0000050	0.000672	<0.00050	<0.050	0.848	0.00006
Chedakuz Creek	CC-03	Surface	Primary	VA23B0222-004	5/9/2023	<0.00010	0.00036	0.073	<0.000050	<0.0010	3.29	0.00631	<0.0000050	0.000473	<0.00050	<0.050	0.722	0.000065
Chedakuz Creek	CC-03	Surface	Primary	VA23A9531-004	5/1/2023	<0.00010	0.00064	0.25	<0.000050	<0.0010	3.52	0.02	<0.0000050	0.000483	0.0005	<0.050	1.26	0.000055
Chedakuz Creek	CC-03	Surface	Duplicate	VA23A9531-005	5/1/2023	<0.00010	0.00067	0.259	<0.000050	<0.0010	3.44	0.0206	<0.0000050	0.000484	0.00058	<0.050	1.28	0.000064
Chedakuz Creek	CC-03	Surface	Primary	VA23A8011-003	4/12/2023	<0.00010	<0.00020	0.091	<0.000050	<0.0010	6.9	0.0102	<0.0000050	0.000785	<0.00050	<0.050	1.3	0.00007
Chedakuz Creek	CC-03	Surface	Primary	VA23A5501-004	3/13/2023	<0.00010	<0.00020	0.038	<0.000050	<0.0010	7.41	0.00615	<0.0000050	0.000772	<0.00050	<0.050	1.11	0.000062
Chedakuz Creek	CC-03	Surface	Duplicate	VA23A5501-005	3/13/2023	<0.00010	<0.00020	0.039	<0.000050	<0.0010	7.45	0.0063	<0.0000050	0.000755	<0.00050	<0.050	1.12	<0.000050
Chedakuz Creek	CC-03	Surface	Primary	VA23A2712-003	2/1/2023	<0.00010	<0.00020	0.05	<0.000050	<0.0010	7.09	0.00793	<0.0000050	0.000723	<0.00050	<0.050	1.08	<0.000050
Chedakuz Creek	CC-03	Surface	Primary	VA23A0821-001	1/11/2023	<0.00010	<0.00020	0.058	<0.000050	<0.0010	7.54	0.0126	<0.0000050	0.00076	<0.00050	<0.050	1.14	<0.000050
Chedakuz Creek	CC-05	Surface	Primary	VA23C6622-004	11/2/2023	<0.00010	<0.00020	0.079	<0.000050	<0.0010	7.21	0.00377	<0.0000050	0.000886	<0.00050	<0.050	0.949	<0.000050
Chedakuz Creek	CC-05	Surface	Primary	VA23C5577-005	10/23/2023	<0.00010	<0.00020	0.092	<0.000050	<0.0010	7.19	0.00381	<0.0000050	0.000994	<0.00050	<0.050	0.938	<0.000050
Chedakuz Creek	CC-05	Surface	Primary	VA23C4865-002	10/16/2023	<0.00010	<0.00020	0.074	<0.000050	<0.0010	7.4	0.00384	<0.0000050	0.00102	<0.00050	<0.050	1.05	<0.000050
Chedakuz Creek	CC-05	Surface	Primary	VA23C4279-002	10/10/2023	<0.00010	<0.00020	0.078	<0.000050	<0.0010	7.38	0.00449	<0.0000050	0.00101	<0.00050	<0.050	1.05	<0.000050
Chedakuz Creek	CC-05	Surface	Primary	VA23C3847-002	10/3/2023	<0.00010	<0.00020	0.072	<0.000050	<0.0010	7.57	0.00449	<0.0000050	0.00103	<0.00050	<0.050	1.09	<0.000050
Chedakuz Creek	CC-05	Surface	Primary	VA23C0762-001	8/31/2023	<0.00010	0.00021	0.097	<0.000050	<0.0010	7.28	0.00577	<0.0000050	0.0011	<0.00050	<0.050	1.01	0.000084
Chedakuz Creek	CC-05	Surface	Duplicate	VA23C0762-003	8/31/2023	<0.00010	0.00023	0.097	<0.000050	<0.0010	7.25	0.00567	<0.0000050	0.00107	<0.00050	<0.050	1.01	0.000068
Chedakuz Creek	CC-05	Surface	Primary	VA23B2052-004	5/29/2023	<0.00010	0.00028	0.06	<0.000050	<0.0010	4.69	0.00956	<0.0000050	0.000731	<0.00050	<0.050	0.794	0.000088
Chedakuz Creek	CC-05	Surface	Primary	VA23B1529-004	5/23/2023	<0.00010	0.00032	0.055	<0.000050	<0.0010	4.46	0.00764	<0.0000050	0.000602	<0.00050	<0.050	0.795	<0.000050
Chedakuz Creek	CC-05	Surface	Primary	VA23B0766-002	5/15/2023	<0.00010	0.00054	0.067	<0.000050	<0.0010	3.04	0.00537	<0.0000050	0.000534	<0.00050	<0.050	0.699	0.000058

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Dissolved Metals *(cont'd)*												
						Cobalt (Co)-Dissolved	Copper (Cu)-Dissolved	Iron (Fe)-Dissolved	Lead (Pb)-Dissolved	Lithium (Li)-Dissolved	Magnesium (Mg)-Dissolved	Manganese (Mn)-Dissolved	Mercury (Hg)-Dissolved	Molybdenum (Mo)-Dissolved	Nickel (Ni)-Dissolved	Phosphorus (P)-Dissolved	Potassium (K)-Dissolved	Selenium (Se)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Chedakuz Creek	CC-05	Surface	Primary	VA23B0222-005	5/9/2023	<0.00010	0.00066	0.143	<0.000050	<0.0010	2.26	0.0042	<0.0000050	0.000404	<0.00050	<0.050	0.674	0.000064
Chedakuz Creek	CC-05	Surface	Primary	VA23A9531-003	5/1/2023	<0.00010	0.00067	0.256	<0.000050	<0.0010	3.16	0.0212	<0.0000050	0.000503	<0.00050	<0.050	1.2	0.000072
Chedakuz Creek	CC-05	Surface	Primary	VA23A2712-004	2/1/2023	<0.00010	<0.00020	0.076	<0.000050	<0.0010	6.12	0.00416	<0.0000050	0.000736	<0.00050	<0.050	0.926	0.000087
Chedakuz Creek	CC-10	Surface	Primary	VA23C6498-005	11/1/2023	<0.00010	0.00026	<0.010	<0.000050	<0.0010	4.63	0.0032	<0.0000050	0.000556	<0.00050	<0.050	0.835	0.000077
Chedakuz Creek	CC-10	Surface	Primary	VA23B9219-006	8/16/2023	<0.00010	0.00031	<0.010	<0.000050	<0.0010	4.6	0.00203	<0.0000050	0.00061	<0.00050	<0.050	0.76	0.00006
Chedakuz Creek	CC-10	Surface	Primary	VA23B0508-006	5/11/2023	<0.00010	0.00036	0.019	<0.000050	<0.0010	4.21	0.00545	<0.0000050	0.000552	<0.00050	<0.050	0.77	0.000067
Chedakuz Creek	CC-10	Surface	Primary	VA23A3177-008	2/8/2023	<0.00010	0.00029	<0.010	<0.000050	<0.0010	4.95	0.00118	<0.0000050	0.000552	<0.00050	<0.050	0.88	0.000054
Chedakuz Creek	CC-15	Surface	Primary	VA23C9626-003	12/6/2023	<0.00010	0.00028	0.084	<0.000050	<0.0010	4.28	0.0167	<0.0000050	0.000677	<0.00050	<0.050	0.792	0.000052
Chedakuz Creek	CC-15	Surface	Primary	VA23C6498-004	11/1/2023	<0.00010	0.00026	0.139	<0.000050	<0.0010	4.49	0.0233	<0.0000050	0.000625	<0.00050	<0.050	0.836	<0.000050
Chedakuz Creek	CC-15	Surface	Primary	VA23C5771-003	10/24/2023	<0.00010	0.00037	0.14	<0.000050	<0.0010	4.66	0.0327	<0.0000050	0.000771	<0.00050	<0.050	0.894	<0.000050
Chedakuz Creek	CC-15	Surface	Primary	VA23C5184-004	10/20/2023	<0.00010	0.00032	0.133	<0.000050	<0.0010	4.9	0.0174	<0.0000050	0.000717	<0.00050	<0.050	0.962	0.000061
Chedakuz Creek	CC-15	Surface	Primary	VA23C4458-002	10/11/2023	<0.00010	0.00035	0.152	<0.000050	<0.0010	4.65	0.0253	<0.0000050	0.000704	<0.00050	<0.050	0.896	0.000065
Chedakuz Creek	CC-15	Surface	Primary	VA23C3871-002	10/4/2023	<0.00010	0.00034	0.135	<0.000050	<0.0010	4.47	0.0202	<0.0000050	0.000732	<0.00050	<0.050	0.929	<0.000050
Chedakuz Creek	CC-15	Surface	Primary	VA23C2546-004	9/20/2023	<0.00010	0.00034	0.14	<0.000050	<0.0010	4.37	0.0276	<0.0000050	0.0008	<0.00050	<0.050	0.915	0.000061
Chedakuz Creek	CC-15	Surface	Primary	VA23B9868-004	8/23/2023	<0.00010	0.00034	0.121	<0.000050	<0.0010	4.03	0.024	<0.0000050	0.000684	<0.00050	<0.050	0.848	<0.000050
Chedakuz Creek	CC-15	Surface	Primary	VA23B7734-006	7/31/2023	<0.00010	0.00042	0.104	<0.000050	<0.0010	4.02	0.0164	<0.0000050	0.000741	<0.00050	<0.050	0.8	<0.000050
Chedakuz Creek	CC-15	Surface	Primary	VA23B2847-002	6/6/2023	<0.00010	0.0004	0.05	<0.000050	<0.0010	4.01	0.012	<0.0000050	0.000617	<0.00050	<0.050	0.822	0.000067
Chedakuz Creek	CC-15	Surface	Primary	VA23B2219-005	5/30/2023	<0.00010	0.00037	0.052	<0.000050	<0.0010	3.85	0.0121	<0.0000050	0.000641	<0.00050	<0.050	0.76	<0.000050
Chedakuz Creek	CC-15	Surface	Primary	VA23B1690-003	5/24/2023	<0.00010	0.00038	0.055	<0.000050	<0.0010	3.46	0.00952	<0.0000050	0.000523	<0.00050	<0.050	0.758	<0.000050
Chedakuz Creek	CC-15	Surface	Primary	VA23B1108-004	5/17/2023	<0.00010	0.0005	0.071	<0.000050	<0.0010	3.12	0.00767	<0.0000050	0.000535	<0.00050	<0.050	0.738	0.000073
Chedakuz Creek	CC-15	Surface	Primary	VA23B0508-003	5/11/2023	<0.00010	0.00059	0.091	<0.000050	<0.0010	3.02	0.00792	0.0000073	0.000538	<0.00050	<0.050	0.78	0.000076
Chedakuz Creek	CC-15	Surface	Duplicate	VA23B0508-007	5/11/2023	<0.00010	0.00056	0.091	<0.000050	<0.0010	2.91	0.00772	0.0000055	0.000524	<0.00050	<0.050	0.793	0.000067
Chedakuz Creek	CC-15	Surface	Primary	VA23A9782-002	5/3/2023	<0.00010	0.00088	0.203	<0.000050	<0.0010	2.59	0.0253	0.0000054	0.000652	<0.00050	<0.050	1.31	0.000065
Chedakuz Creek	CC-15	Surface	Primary	VA23A9207-002	4/26/2023	<0.00010	0.00037	0.122	<0.000050	<0.0010	3.72	0.0389	<0.0000050	0.000653	<0.00050	<0.050	0.995	0.000067
Chedakuz Creek	CC-15	Surface	Primary	VA23A6844-003	3/27/2023	<0.00010	0.00032	0.119	<0.000050	<0.0010	4.62	0.0282	<0.0000050	0.000722	<0.00050	<0.050	0.966	0.00006
Chedakuz Creek	CC-15	Surface	Primary	VA23A2861-001	2/6/2023	<0.00010	0.0003	0.07	<0.000050	<0.0010	5.18	0.0175	<0.0000050	0.000597	<0.00050	<0.050	0.852	<0.000050
Chedakuz Creek	CC-15	Surface	Primary	VA23A1889-002	1/24/2023	<0.00010	0.00032	0.08	<0.000050	<0.0010	5.02	0.0212	<0.0000050	0.000704	<0.00050	<0.050	0.907	<0.000050
Chedakuz Creek	CC-20	Surface	Primary	VA23C9626-002	12/6/2023	<0.00010	0.0003	0.083	<0.000050	<0.0010	4.34	0.0181	<0.0000050	0.000655	<0.00050	<0.050	0.79	<0.000050
Chedakuz Creek	CC-20	Surface	Primary	VA23C6498-003	11/1/2023	<0.00010	0.00032	0.12	<0.000050	<0.0010	4.59	0.0217	<0.0000050	0.000641	<0.00050	<0.050	0.855	<0.000050
Chedakuz Creek	CC-20	Surface	Primary	VA23C5771-004	10/24/2023	<0.00010	0.00034	0.129	<0.000050	<0.0010	4.49	0.0206	<0.0000050	0.00069	<0.00050	<0.050	0.818	<0.000050
Chedakuz Creek	CC-20	Surface	Primary	VA23C5184-005	10/20/2023	<0.00010	0.00033	0.13	<0.000050	<0.0010	4.97	0.0167	<0.0000050	0.000695	<0.00050	<0.050	0.952	<0.000050
Chedakuz Creek	CC-20	Surface	Primary	VA23C4458-003	10/11/2023	<0.00010	0.00036	0.127	<0.000050	<0.0010	4.75	0.0182	<0.0000050	0.000724	<0.00050	<0.050	0.888	0.000058
Chedakuz Creek	CC-20	Surface	Primary	VA23C3871-003	10/4/2023	<0.00010	0.00036	0.138	<0.000050	<0.0010	4.65	0.0203	<0.0000050	0.000743	<0.00050	<0.050	0.912	0.000055
Chedakuz Creek	CC-20	Surface	Duplicate	VA23C3871-004	10/4/2023	<0.00010	0.00034	0.139	<0.000050	<0.0010	4.52	0.02	<0.0000050	0.00072	<0.00050	<0.050	0.904	0.000058
Chedakuz Creek	CC-20	Surface	Primary	VA23C2546-003	9/20/2023	<0.00010	0.00033	0.128	<0.000050	<0.0010	4.26	0.0194	<0.0000050	0.000734	<0.00050	<0.050	0.904	0.000061
Chedakuz Creek	CC-20	Surface	Primary	VA23B9868-005	8/23/2023	<0.00010	0.00036	0.124	<0.000050	<0.0010	4.06	0.0234	<0.0000050	0.000986	<0.00050	<0.050	0.84	<0.000050
Chedakuz Creek	CC-20	Surface	Primary	VA23B7734-007	7/31/2023	<0.00010	0.00041	0.107	<0.000050	<0.0010	4.04	0.0184	<0.0000050	0.000731	<0.00050	<0.050	0.81	0.000061
Chedakuz Creek	CC-20	Surface	Primary	VA23B4330-006	6/21/2023	<0.00010	0.00043	0.087	<0.000050	<0.0010	4.24	0.0181	<0.0000050	0.000677	<0.00050	<0.050	0.833	0.000069
Chedakuz Creek	CC-20	Surface	Primary	VA23B2219-002	5/30/2023	<0.00010	0.00038	0.051	<0.000050	<0.0010	3.94	0.0117	<0.0000050	0.000573	<0.00050	<0.050	0.754	0.000075
Chedakuz Creek	CC-20	Surface	Duplicate	VA23B2219-003	5/30/2023	<0.00010	0.00036	0.05	<0.000050	<0.0010	3.89	0.0117	<0.0000050	0.000626	<0.00050	<0.050	0.759	0.000058
Chedakuz Creek	CC-20	Surface	Primary	VA23B1690-004	5/24/2023	<0.00010	0.00041	0.062	<0.000050	<0.0010	3.48	0.0105	<0.0000050	0.000526	<0.00050	<0.050	0.771	<0.000050
Chedakuz Creek	CC-20	Surface	Primary	VA23B1108-003	5/17/2023	<0.00010	0.00047	0.069	<0.000050	<0.0010	3.08	0.00849	<0.0000050	0.00054	<0.00050	<0.050	0.721	0.000065
Chedakuz Creek	CC-20	Surface	Primary	VA23B0508-004	5/11/2023	<0.00010	0.00068	0.091	<0.000050	<0.0010	2.94	0.00828	0.0000065	0.000518	<0.00050	<0.050	0.796	0.000085
Chedakuz Creek	CC-20	Surface	Primary	VA23A9782-003	5/3/2023	<0.00010	0.0009	0.2	<0.000050	<0.0010	2.62	0.0245	<0.0000050	0.000687	<0.00050	<0.050	1.33	0.000092
Chedakuz Creek	CC-20	Surface	Primary	VA23A9076-002	4/25/2023	<0.00010	0.00038	0.113	<0.000050	<0.0010	4.06	0.0313	<0.0000050	0.000668	<0.00050	<0.050	0.96	0.000058
Chedakuz Creek	CC-20	Surface	Primary	VA23A6844-002	3/27/2023	<0.00010	0.0003	0.11	<0.000050	<0.0010	4.66	0.0309	<0.0000050	0.000701	<0.00050	<0.050	0.926	0.000071

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Dissolved Metals *(cont'd)*												
						Cobalt (Co)-Dissolved	Copper (Cu)-Dissolved	Iron (Fe)-Dissolved	Lead (Pb)-Dissolved	Lithium (Li)-Dissolved	Magnesium (Mg)-Dissolved	Manganese (Mn)-Dissolved	Mercury (Hg)-Dissolved	Molybdenum (Mo)-Dissolved	Nickel (Ni)-Dissolved	Phosphorus (P)-Dissolved	Potassium (K)-Dissolved	Selenium (Se)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Chedakuz Creek	CC-20	Surface	Primary	VA23A2861-002	2/6/2023	<0.00010	0.00031	0.078	<0.000050	<0.0010	5.14	0.0229	<0.0000050	0.000606	<0.00050	<0.050	0.835	0.000065
Chedakuz Creek	CC-20	Surface	Primary	VA23A1412-002	1/18/2023	<0.00010	0.00034	0.071	<0.000050	<0.0010	4.64	0.0224	<0.0000050	0.000664	<0.00050	<0.050	0.853	0.000052
Chedakuz Creek	CC-30	Surface	Primary	VA23C6498-002	11/1/2023	<0.00010	0.00026	0.262	<0.000050	<0.0010	5.38	0.0248	<0.0000050	0.000815	<0.00050	<0.050	0.951	<0.000050
Chedakuz Creek	CC-30	Surface	Primary	VA23C0393-002	8/29/2023	<0.00010	0.00037	0.209	<0.000050	<0.0010	4.79	0.0215	<0.0000050	0.000961	<0.00050	<0.050	0.98	<0.000050
Chedakuz Creek	CC-30	Surface	Duplicate	VA23C0393-003	8/29/2023	<0.00010	0.00034	0.208	<0.000050	<0.0010	4.64	0.0212	<0.0000050	0.000975	<0.00050	<0.050	0.975	0.000057
Chedakuz Creek	CC-30	Surface	Primary	VA23B0508-001	5/11/2023	<0.00010	0.00062	0.109	<0.000050	<0.0010	2.89	0.0103	<0.0000050	0.000522	<0.00050	<0.050	0.858	<0.000050
Chedakuz Creek	CC-30	Surface	Primary	VA23A3560-001	2/14/2023	<0.00010	0.00028	0.208	<0.000050	<0.0010	5.05	0.0449	<0.0000050	0.000806	<0.00050	<0.050	0.939	<0.000050
Chedakuz Creek	CC-40	Surface	Primary	VA23C9626-001	12/6/2023	<0.00010	0.0003	0.222	<0.000050	<0.0010	5.96	0.0251	<0.0000050	0.000931	<0.00050	<0.050	0.976	<0.000050
Chedakuz Creek	CC-40	Surface	Primary	VA23C6498-001	11/1/2023	<0.00010	0.00026	0.265	<0.000050	<0.0010	6.04	0.0263	<0.0000050	0.000886	<0.00050	<0.050	1.02	<0.000050
Chedakuz Creek	CC-40	Surface	Primary	VA23C5771-001	10/24/2023	<0.00010	0.00026	0.277	<0.000050	<0.0010	5.59	0.0243	<0.0000050	0.000948	<0.00050	<0.050	0.955	<0.000050
Chedakuz Creek	CC-40	Surface	Duplicate	VA23C5771-002	10/24/2023	<0.00010	0.00027	0.292	<0.000050	<0.0010	5.94	0.0258	<0.0000050	0.000968	<0.00050	<0.050	0.982	<0.000050
Chedakuz Creek	CC-40	Surface	Primary	VA23C5184-001	10/20/2023	<0.00010	0.00029	0.281	<0.000050	<0.0010	6.68	0.0221	<0.0000050	0.00113	<0.00050	<0.050	1.18	<0.000050
Chedakuz Creek	CC-40	Surface	Primary	VA23C4458-001	10/11/2023	<0.00010	0.0003	0.276	<0.000050	<0.0010	6.2	0.0233	<0.0000050	0.00114	<0.00050	<0.050	1.12	0.000055
Chedakuz Creek	CC-40	Surface	Primary	VA23C3871-001	10/4/2023	<0.00010	0.00038	0.295	<0.000050	<0.0010	6.07	0.0229	<0.0000050	0.00107	<0.00050	<0.050	1.14	<0.000050
Chedakuz Creek	CC-40	Surface	Primary	VA23C2546-005	9/20/2023	<0.00010	0.00032	0.268	<0.000050	<0.0010	5.87	0.0248	<0.0000050	0.00114	<0.00050	<0.050	1.1	0.000064
Chedakuz Creek	CC-40	Surface	Primary	VA23C0393-001	8/29/2023	<0.00010	0.00035	0.219	<0.000050	<0.0010	5.19	0.025	<0.0000050	0.00106	<0.00050	<0.050	1.05	0.000074
Chedakuz Creek	CC-40	Surface	Primary	VA23B7523-007	7/27/2023	<0.00010	0.00042	0.184	<0.000050	<0.0010	4.91	0.0224	<0.0000050	0.000897	<0.00050	<0.050	0.904	<0.000050
Chedakuz Creek	CC-40	Surface	Primary	VA23B2847-001	6/6/2023	<0.00010	0.00039	0.132	<0.000050	<0.0010	4.79	0.032	<0.0000050	0.000768	<0.00050	<0.050	0.842	0.000072
Chedakuz Creek	CC-40	Surface	Primary	VA23B2219-001	5/30/2023	<0.00010	0.00044	0.126	<0.000050	<0.0010	4.11	0.0266	<0.0000050	0.00065	<0.00050	<0.050	0.795	0.00006
Chedakuz Creek	CC-40	Surface	Primary	VA23B1690-001	5/24/2023	<0.00010	0.00046	0.106	<0.000050	<0.0010	3.57	0.0209	<0.0000050	0.000555	<0.00050	<0.050	0.764	<0.000050
Chedakuz Creek	CC-40	Surface	Primary	VA23B1108-001	5/17/2023	<0.00010	0.00058	0.108	<0.000050	<0.0010	2.99	0.0157	<0.0000050	0.000506	<0.00050	<0.050	0.738	0.000071
Chedakuz Creek	CC-40	Surface	Duplicate	VA23B1108-002	5/17/2023	<0.00010	0.00058	0.103	<0.000050	<0.0010	2.96	0.0155	<0.0000050	0.000553	<0.00050	<0.050	0.734	<0.000050
Chedakuz Creek	CC-40	Surface	Primary	VA23B0508-002	5/11/2023	<0.00010	0.00069	0.133	<0.000050	<0.0010	2.9	0.00912	<0.0000050	0.000496	<0.00050	<0.050	0.898	<0.000050
Chedakuz Creek	CC-40	Surface	Primary	VA23A9782-001	5/3/2023	<0.00010	0.00083	0.33	<0.000050	<0.0010	3.17	0.0259	<0.0000050	0.000644	<0.00050	<0.050	1.56	0.000054
Chedakuz Creek	CC-40	Surface	Primary	VA23A9207-001	4/26/2023	<0.00010	0.00034	0.287	<0.000050	<0.0010	4.51	0.0288	<0.0000050	0.000718	<0.00050	<0.050	1.24	<0.000050
Chedakuz Creek	CC-40	Surface	Primary	VA23A6844-001	3/27/2023	<0.00010	0.00027	0.243	<0.000050	<0.0010	5.82	0.0378	<0.0000050	0.000895	<0.00050	<0.050	1.18	<0.000050
Chedakuz Creek	CC-40	Surface	Primary	VA23A3035-001	2/7/2023	<0.00010	0.00028	0.189	<0.000050	<0.0010	5.9	0.0338	<0.0000050	0.00078	<0.00050	<0.050	0.932	<0.000050
Chedakuz Creek	CC-40	Surface	Primary	VA23A1412-001	1/18/2023	<0.00010	0.0003	0.168	<0.000050	<0.0010	5.65	0.0386	<0.0000050	0.000828	<0.00050	<0.050	0.972	<0.000050
Creek 705	705-05	Surface	Primary	VA23C9661-004	12/7/2023	<0.00010	<0.00020	0.137	<0.000050	<0.0010	1.16	0.00707	<0.0000050	0.000567	<0.00050	<0.050	0.36	<0.000050
Creek 705	705-05	Surface	Primary	VA23C7190-010	11/9/2023	<0.00010	0.00029	0.158	<0.000050	<0.0010	1.12	0.0069	<0.0000050	0.000451	<0.00050	<0.050	0.364	<0.000050
Creek 705	705-05	Surface	Duplicate	VA23C7190-011	11/9/2023	<0.00010	0.00031	0.163	<0.000050	<0.0010	1.13	0.00688	<0.0000050	0.000435	<0.00050	<0.050	0.36	<0.000050
Creek 705	705-05	Surface	Primary	VA23C4014-006	10/6/2023	<0.00010	0.00026	0.173	<0.000050	<0.0010	1.17	0.00678	<0.0000050	0.000574	<0.00050	<0.050	0.382	<0.000050
Creek 705	705-05	Surface	Primary	VA23C1674-001	9/12/2023	<0.00010	0.00031	0.203	<0.000050	<0.0010	1.27	0.0078	<0.0000050	0.000628	<0.00050	<0.050	0.353	<0.000050
Creek 705	705-05	Surface	Primary	VA23B8906-003	8/14/2023	<0.00010	0.00036	0.158	<0.000050	<0.0010	1.06	0.00909	<0.0000050	0.000572	<0.00050	<0.050	0.304	<0.000050
Creek 705	705-05	Surface	Duplicate	VA23B8906-004	8/14/2023	<0.00010	0.00033	0.159	<0.000050	<0.0010	1.06	0.00914	<0.0000050	0.000569	<0.00050	<0.050	0.302	<0.000050
Creek 705	705-05	Surface	Primary	VA23B7523-003	7/27/2023	<0.00010	0.00045	0.159	<0.000050	<0.0010	0.953	0.00592	<0.0000050	0.000407	<0.00050	<0.050	0.228	<0.000050
Creek 705	705-05	Surface	Primary	VA23B3687-004	6/14/2023	<0.00010	0.00039	0.096	<0.000050	<0.0010	0.922	0.00472	<0.0000050	0.000631	<0.00050	<0.050	0.238	<0.000050
Creek 705	705-05	Surface	Primary	VA23B0364-002	5/10/2023	<0.00010	0.0005	0.106	<0.000050	<0.0010	0.616	0.00341	0.0000083	0.000243	<0.00050	<0.050	0.31	0.00006
Creek 705	705-05	Surface	Primary	VA23A8158-003	4/13/2023	<0.00010	0.00044	0.105	<0.000050	<0.0010	1.68	0.00291	<0.0000050	0.000408	<0.00050	<0.050	0.349	<0.000050
Creek 705	705-05	Surface	Primary	VA23A6844-006	3/28/2023	<0.00010	0.0002	0.148	<0.000050	<0.0010	1.14	0.00573	<0.0000050	0.000561	<0.00050	<0.050	0.289	<0.000050
Creek 705	705-05	Surface	Primary	VA23A3268-004	2/9/2023	<0.00010	0.00021	0.103	<0.000050	<0.0010	1.04	0.0055	<0.0000050	0.000598	<0.00050	<0.050	0.226	<0.000050
Creek 705	705-05	Surface	Primary	VA23A1264-002	1/17/2023	<0.00010	0.00022	0.131	<0.000050	<0.0010	1.1	0.00655	<0.0000050	0.000518	<0.00050	<0.050	0.244	<0.000050
Creek 705	705-10	Surface	Primary	VA23C9661-005	12/7/2023	<0.00010	0.00022	0.051	<0.000050	<0.0010	1.54	0.00088	<0.0000050	0.000521	<0.00050	<0.050	0.34	<0.000050
Creek 705	705-10	Surface	Primary	VA23C6880-001	11/6/2023	<0.00010	0.00038	0.109	<0.000050	<0.0010	1.46	0.00222	<0.0000050	0.000596	<0.00050	<0.050	0.349	<0.000050
Creek 705	705-10	Surface	Primary	VA23C6383-004	10/31/2023	<0.00010	0.00026	0.03	<0.000050	<0.0010	1.84	0.00082	<0.0000050	0.000505	<0.00050	<0.050	0.32	<0.000050
Creek 705	705-10	Surface	Duplicate	VA23C6383-006	10/31/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	1.38	<0.00010	<0.0000050	0.000766	<0.00050	<0.050	0.393	<0.000050

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Dissolved Metals *(cont'd)*												
						Cobalt (Co)-Dissolved	Copper (Cu)-Dissolved	Iron (Fe)-Dissolved	Lead (Pb)-Dissolved	Lithium (Li)-Dissolved	Magnesium (Mg)-Dissolved	Manganese (Mn)-Dissolved	Mercury (Hg)-Dissolved	Molybdenum (Mo)-Dissolved	Nickel (Ni)-Dissolved	Phosphorus (P)-Dissolved	Potassium (K)-Dissolved	Selenium (Se)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Creek 705	705-10	Surface	Primary	VA23C5894-004	10/25/2023	<0.00010	0.00031	0.023	<0.000050	<0.0010	1.87	0.00099	<0.0000050	0.000487	<0.00050	<0.050	0.321	<0.000050
Creek 705	705-10	Surface	Primary	VA23C4858-004	10/17/2023	<0.00010	0.0003	0.029	<0.000050	<0.0010	1.58	0.00112	<0.0000050	0.000522	<0.00050	<0.050	0.355	<0.000050
Creek 705	705-10	Surface	Primary	VA23C4586-005	10/14/2023	<0.00010	0.00029	0.023	<0.000050	<0.0010	1.56	0.00088	<0.0000050	0.000519	<0.00050	<0.050	0.325	<0.000050
Creek 705	705-10	Surface	Primary	VA23C4014-007	10/6/2023	<0.00010	0.00029	0.035	<0.000050	<0.0010	1.49	0.00097	<0.0000050	0.000531	<0.00050	<0.050	0.334	<0.000050
Creek 705	705-10	Surface	Primary	VA23C1674-002	9/12/2023	<0.00010	0.00036	0.029	<0.000050	<0.0010	1.63	0.00229	<0.0000050	0.00056	<0.00050	<0.050	0.365	<0.000050
Creek 705	705-10	Surface	Primary	VA23B8906-002	8/14/2023	<0.00010	0.0004	0.063	<0.000050	<0.0010	1.31	0.0015	<0.0000050	0.000468	<0.00050	<0.050	0.323	<0.000050
Creek 705	705-10	Surface	Primary	VA23B7523-002	7/27/2023	<0.00010	0.00057	0.11	<0.000050	<0.0010	1.19	0.00319	0.0000053	0.000378	<0.00050	<0.050	0.261	<0.000050
Creek 705	705-10	Surface	Primary	VA23B3687-005	6/14/2023	<0.00010	0.00045	0.034	<0.000050	<0.0010	1.35	0.00199	<0.0000050	0.000503	<0.00050	<0.050	0.313	<0.000050
Creek 705	705-10	Surface	Primary	VA23B2224-004	5/31/2023	<0.00010	0.00046	0.053	<0.000050	<0.0010	1.13	0.00131	<0.0000050	0.000469	<0.00050	<0.050	0.259	<0.000050
Creek 705	705-10	Surface	Primary	VA23B1379-005	5/22/2023	<0.00010	0.00052	0.076	<0.000050	<0.0010	0.983	0.0018	0.0000054	0.00032	<0.00050	<0.050	0.243	<0.000050
Creek 705	705-10	Surface	Primary	VA23B0766-009	5/16/2023	<0.00010	0.00062	0.076	<0.000050	<0.0010	0.736	0.00183	0.0000077	0.000235	<0.00050	<0.050	0.269	<0.000050
Creek 705	705-10	Surface	Primary	VA23B0364-003	5/10/2023	<0.00010	0.00072	0.129	<0.000050	<0.0010	0.804	0.00272	0.0000092	0.000224	<0.00050	<0.050	0.326	<0.000050
Creek 705	705-10	Surface	Primary	VA23A9638-001	5/2/2023	<0.00010	0.00095	0.24	0.000051	<0.0010	0.973	0.00738	0.0000117	0.000164	<0.00050	<0.050	0.654	<0.000050
Creek 705	705-10	Surface	Primary	VA23A8158-001	4/13/2023	<0.00010	0.00044	0.111	<0.000050	<0.0010	1.68	0.00341	<0.0000050	0.000394	<0.00050	<0.050	0.361	0.000056
Creek 705	705-10	Surface	Duplicate	VA23A8158-002	4/13/2023	<0.00010	0.00044	0.112	<0.000050	<0.0010	1.63	0.0034	<0.0000050	0.000396	<0.00050	<0.050	0.347	<0.000050
Creek 705	705-10	Surface	Primary	VA23A6844-005	3/27/2023	<0.00010	0.00027	0.055	<0.000050	<0.0010	1.65	0.00157	<0.0000050	0.00048	<0.00050	<0.050	0.31	<0.000050
Creek 705	705-10	Surface	Primary	VA23A3268-005	2/9/2023	<0.00010	0.00032	0.049	<0.000050	<0.0010	1.4	0.00163	<0.0000050	0.00044	<0.00050	<0.050	0.265	<0.000050
Creek 705	705-10	Surface	Primary	VA23A1264-003	1/17/2023	<0.00010	0.00048	0.06	<0.000050	<0.0010	1.48	0.00183	<0.0000050	0.000358	<0.00050	<0.050	0.298	<0.000050
Fawnie Creek	FC-01	Surface	Primary	VA23C9661-006	12/7/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	1.35	<0.00010	<0.0000050	0.000822	<0.00050	<0.050	0.41	<0.000050
Fawnie Creek	FC-01	Surface	Primary	VA23C6880-002	11/6/2023	<0.00010	0.00024	<0.010	<0.000050	<0.0010	1.21	0.00014	<0.0000050	0.000682	<0.00050	<0.050	0.377	<0.000050
Fawnie Creek	FC-01	Surface	Primary	VA23C6383-005	10/31/2023	<0.00010	0.00026	0.03	<0.000050	<0.0010	1.84	0.00083	<0.0000050	0.000482	<0.00050	<0.050	0.31	<0.000050
Fawnie Creek	FC-01	Surface	Primary	VA23C5894-005	10/25/2023	<0.00010	0.00026	<0.010	<0.000050	<0.0010	1.37	0.00016	<0.0000050	0.000691	<0.00050	<0.050	0.39	<0.000050
Fawnie Creek	FC-01	Surface	Primary	VA23C4858-005	10/17/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	1.18	0.00024	<0.0000050	0.000647	<0.00050	<0.050	0.425	<0.000050
Fawnie Creek	FC-01	Surface	Duplicate	VA23C4858-006	10/17/2023	<0.00010	0.0002	<0.010	<0.000050	<0.0010	1.19	0.00014	<0.0000050	0.000679	<0.00050	<0.050	0.426	<0.000050
Fawnie Creek	FC-01	Surface	Primary	VA23C4586-006	10/14/2023	<0.00010	0.0002	<0.010	<0.000050	<0.0010	1.26	0.00011	<0.0000050	0.00071	<0.00050	<0.050	0.417	<0.000050
Fawnie Creek	FC-01	Surface	Primary	VA23C4014-008	10/6/2023	<0.00010	0.0002	<0.010	<0.000050	<0.0010	1.17	0.0001	<0.0000050	0.000692	<0.00050	<0.050	0.395	<0.000050
Fawnie Creek	FC-01	Surface	Primary	VA23C0875-004	9/4/2023	<0.00010	0.00025	<0.010	<0.000050	<0.0010	1.2	0.00013	<0.0000050	0.000665	<0.00050	<0.050	0.46	<0.000050
Fawnie Creek	FC-01	Surface	Primary	VA23B8906-001	8/14/2023	<0.00010	0.00035	<0.010	<0.000050	<0.0010	1.04	0.00034	<0.0000050	0.000494	<0.00050	<0.050	0.416	<0.000050
Fawnie Creek	FC-01	Surface	Primary	VA23B7523-001	7/27/2023	<0.00010	0.00046	<0.010	<0.000050	<0.0010	0.928	0.00018	<0.0000050	0.00043	<0.00050	<0.050	0.374	<0.000050
Fawnie Creek	FC-01	Surface	Primary	VA23B4330-001	6/21/2023	<0.00010	0.00051	0.016	<0.000050	<0.0010	0.712	0.00021	<0.0000050	0.000341	<0.00050	<0.050	0.332	<0.000050
Fawnie Creek	FC-01	Surface	Primary	VA23B2224-003	5/31/2023	<0.00010	0.00045	0.012	<0.000050	<0.0010	0.592	0.00022	<0.0000050	0.000295	<0.00050	<0.050	0.285	<0.000050
Fawnie Creek	FC-01	Surface	Primary	VA23B1379-006	5/22/2023	<0.00010	0.00053	0.023	<0.000050	<0.0010	0.45	0.00042	<0.0000050	0.000206	<0.00050	<0.050	0.249	<0.000050
Fawnie Creek	FC-01	Surface	Primary	VA23B0766-006	5/15/2023	<0.00010	0.00071	0.04	<0.000050	<0.0010	0.313	0.00219	<0.0000050	0.000135	<0.00050	<0.050	0.302	<0.000050
Fawnie Creek	FC-01	Surface	Primary	VA23B0364-004	5/10/2023	<0.00010	0.00069	0.062	<0.000050	<0.0010	0.454	0.00127	0.0000055	0.000179	<0.00050	<0.050	0.326	<0.000050
Fawnie Creek	FC-01	Surface	Primary	VA23A9638-002	5/2/2023	<0.00010	0.00066	0.053	<0.000050	<0.0010	1.2	0.00167	<0.0000050	0.0006	<0.00050	<0.050	0.432	<0.000050
Fawnie Creek	FC-01	Surface	Primary	VA23A8158-005	4/13/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	1.55	0.00011	<0.0000050	0.00104	<0.00050	<0.050	0.459	0.000072
Fawnie Creek	FC-01	Surface	Primary	VA23A6844-004	3/27/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	1.55	<0.00010	<0.0000050	0.00102	<0.00050	<0.050	0.47	<0.000050
Fawnie Creek	FC-01	Surface	Primary	VA23A3268-006	2/9/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	1.51	<0.00010	<0.0000050	0.000881	<0.00050	<0.050	0.433	<0.000050
Fawnie Creek	FC-01	Surface	Duplicate	VA23A3268-007	2/9/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	1.44	<0.00010	<0.0000050	0.000912	<0.00050	<0.050	0.408	<0.000100
Fawnie Creek	FC-01	Surface	Primary	VA23A1264-001	1/17/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	1.46	<0.00010	<0.0000050	0.000916	<0.00050	<0.050	0.422	0.000058
Field Blank	-	-	-	VA23C9661-007	12/7/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.100	<0.000050
Field Blank	-	-	-	VA23C6498-007	11/1/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.100	<0.000050
Field Blank	-	-	-	VA23C5771-006	10/24/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.100	<0.000050
Field Blank	-	-	-	VA23C5184-006	10/20/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.100	<0.000050
Field Blank	-	-	-	VA23C4458-005	10/11/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.100	<0.000050
Field Blank	-	-	-	VA23C3871-005	10/4/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.100	<0.000050

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Dissolved Metals *(cont'd)*												
						Cobalt (Co)-Dissolved	Copper (Cu)-Dissolved	Iron (Fe)-Dissolved	Lead (Pb)-Dissolved	Lithium (Li)-Dissolved	Magnesium (Mg)-Dissolved	Manganese (Mn)-Dissolved	Mercury (Hg)-Dissolved	Molybdenum (Mo)-Dissolved	Nickel (Ni)-Dissolved	Phosphorus (P)-Dissolved	Potassium (K)-Dissolved	Selenium (Se)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Field Blank	-	-	-	VA23C1854-004	9/13/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.100	<0.000050
Field Blank	-	-	-	VA23B8906-009	8/15/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.100	<0.000050
Field Blank	-	-	-	VA23B7293-002	7/25/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050	0.000083	<0.00050	<0.050	<0.100	<0.000050
Field Blank	-	-	-	VA23B4330-008	6/21/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.100	<0.000050
Field Blank	-	-	-	VA23B2219-006	5/30/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.100	<0.000050
Field Blank	-	-	-	VA23B1379-003	5/22/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.100	<0.000050
Field Blank	-	-	-	VA23B1108-006	5/17/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.100	<0.000050
Field Blank	-	-	-	VA23B0222-007	5/9/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.100	<0.000050
Field Blank	-	-	-	VA23A9893-005	5/4/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.100	<0.000050
Field Blank	-	-	-	VA23A7852-006	4/11/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.100	<0.000050
Field Blank	-	-	-	VA23A6097-006	3/20/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.100	<0.000050
Field Blank	-	-	-	VA23A3035-002	2/7/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.100	<0.000050
Field Blank	-	-	-	VA23A1261-004	1/17/2023	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.100	<0.00010	<0.0000050	<0.000050	<0.00050	<0.050	<0.100	<0.000050
Travel Blank	-	-	-	VA23D0165-001	12/14/2023	-	-	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C7190-012	11/9/2023	-	-	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C5894-006	10/25/2023	-	-	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C5184-007	10/20/2023	-	-	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C5293-008	10/19/2023	-	-	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C4586-007	10/14/2023	-	-	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C4014-012	10/6/2023	-	-	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C2546-006	9/20/2023	-	-	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C0762-005	8/31/2023	-	-	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23B7734-008	7/31/2023	-	-	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23B4330-009	6/21/2023	-	-	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23B2224-005	5/31/2023	-	-	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23B1690-012	5/24/2023	-	-	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23B1108-007	5/17/2023	-	-	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23A9893-006	5/4/2023	-	-	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23A9322-002	4/28/2023	-	-	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23A6844-009	3/28/2023	-	-	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23A4552-003	2/28/2023	-	-	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23A1890-005	1/25/2023	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
"-" indicates parameter was not analyzed.
"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Dissolved Metals *(cont'd)*										
						Silicon (Si)-Dissolved	Silver (Ag)-Dissolved	Sodium (Na)-Dissolved	Strontium (Sr)-Dissolved	Sulfur (S)-Dissolved	Thallium (Tl)-Dissolved	Tin (Sn)-Dissolved	Titanium (Ti)-Dissolved	Uranium (U)-Dissolved	Vanadium (V)-Dissolved	Zinc (Zn)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23C6622-009	11/2/2023	0.185	<0.000010	3.17	0.111	<0.50	<0.000010	<0.00010	<0.00030	0.000017	<0.00050	<0.0010
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23C6622-008	11/2/2023	0.171	<0.000010	3.25	0.111	0.52	<0.000010	<0.00010	<0.00030	0.000017	<0.00050	0.0014
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23C6622-007	11/2/2023	0.191	<0.000010	3.19	0.11	<0.50	<0.000010	<0.00010	<0.00030	0.000016	<0.00050	<0.0010
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23C1854-001	9/13/2023	5.74	<0.000010	3.2	0.106	<0.50	<0.000010	<0.00010	<0.00030	0.000019	<0.00050	0.0014
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23C1854-002	9/13/2023	5.7	<0.000010	3.2	0.0984	<0.50	<0.000010	<0.00010	<0.00030	0.000021	<0.00050	<0.0010
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23C1854-003	9/13/2023	5.9	<0.000010	3.16	0.0976	<0.50	<0.000010	<0.00010	<0.00030	0.000017	<0.00050	<0.0010
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23B2052-008	5/29/2023	5.46	<0.000010	3.07	0.0983	0.51	<0.000010	<0.00010	<0.00030	0.000019	<0.00050	0.0011
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23B2052-007	5/29/2023	5.36	<0.000010	3.08	0.0991	0.66	<0.000010	<0.00010	<0.00030	0.000019	<0.00050	0.002
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23B2052-006	5/29/2023	6.46	<0.000010	3.06	0.101	0.59	<0.000010	<0.00010	<0.00030	0.000017	<0.00050	0.0057
Kuyakuz Lake	KL-01	Epilimnion	Primary	VA23A3692-003	2/15/2023	5.48	<0.000010	3.17	0.0978	<0.50	<0.000010	<0.00010	<0.00030	0.000017	<0.00050	0.0015
Kuyakuz Lake	KL-01	Metalimnion	Primary	VA23A3692-002	2/15/2023	5.78	<0.000010	3	0.0959	0.62	<0.000010	<0.00010	<0.00030	0.000014	<0.00050	0.002
Kuyakuz Lake	KL-01	Hypolimnion	Primary	VA23A3692-001	2/15/2023	7.31	<0.000010	3.09	0.103	0.53	<0.000010	<0.00010	0.00045	0.000019	<0.00050	<0.0010
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23C5293-003	10/19/2023	3	<0.000010	3.52	0.103	1.25	<0.000010	<0.00010	<0.00030	0.000112	<0.00050	<0.0010
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23C5293-002	10/19/2023	3.31	<0.000010	3.64	0.104	1.32	<0.000010	<0.00010	<0.00030	0.000102	<0.00050	0.0011
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23C5293-001	10/19/2023	6.22	<0.000010	3.62	0.1	1.2	<0.000010	<0.00010	<0.00030	0.000092	<0.00050	0.0011
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23C0266-003	8/28/2023	2.43	<0.000010	3.42	0.0947	1.27	<0.000010	<0.00010	<0.00030	0.0001	<0.00050	0.0019
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23C0266-002	8/28/2023	5.18	<0.000010	3.4	0.0944	1.25	<0.000010	<0.00010	<0.00030	0.000095	<0.00050	0.0011
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23C0266-001	8/28/2023	6.27	<0.000010	3.55	0.0962	1.18	<0.000010	<0.00010	<0.00030	0.000092	<0.00050	0.0019
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23B1690-011	5/24/2023	4.49	<0.000010	3.39	0.0872	1.21	<0.000010	<0.00010	<0.00030	0.000083	<0.00050	<0.0010
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23B1690-010	5/24/2023	4.71	<0.000010	3.34	0.0899	1.15	<0.000010	<0.00010	<0.00030	0.000084	<0.00050	0.0022
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23B1690-009	5/24/2023	5.45	<0.000010	3.5	0.0966	1.22	<0.000010	<0.00010	<0.00030	0.000083	<0.00050	0.0011
Tatelkuz Lake	TL-01	Epilimnion	Primary	VA23A3177-007	2/8/2023	4.81	<0.000010	3.45	0.0919	1.23	<0.000010	<0.00010	<0.00030	0.000089	<0.00050	0.0031
Tatelkuz Lake	TL-01	Metalimnion	Primary	VA23A3177-006	2/8/2023	4.77	<0.000010	3.44	0.0932	1.24	<0.000010	<0.00010	<0.00030	0.000086	<0.00050	0.0015
Tatelkuz Lake	TL-01	Hypolimnion	Primary	VA23A3177-005	2/8/2023	5.27	<0.000010	3.45	0.0912	1.31	<0.000010	<0.00010	<0.00030	0.000084	<0.00050	<0.0010
Davidson Creek	DC-05	Surface	Primary	VA23D0155-002	12/15/2023	6.76	<0.000010	3.13	0.0782	1.02	<0.000010	<0.00010	0.00085	0.000171	<0.00050	<0.0010
Davidson Creek	DC-05	Surface	Primary	VA23C7190-002	11/8/2023	6.16	<0.000010	2.76	0.0646	1.23	<0.000010	<0.00010	0.00182	0.00013	<0.00050	<0.0010
Davidson Creek	DC-05	Surface	Primary	VA23C6383-003	10/31/2023	6.56	<0.000010	3.22	0.0864	0.98	<0.000010	<0.00010	0.00075	0.000228	<0.00050	<0.0010
Davidson Creek	DC-05	Surface	Primary	VA23C5894-001	10/25/2023	6.73	<0.000010	3.48	0.0902	1.3	<0.000010	<0.00010	0.00124	0.0002	<0.00050	<0.0010
Davidson Creek	DC-05	Surface	Primary	VA23C4858-003	10/16/2023	6.03	<0.000010	3.3	0.0879	0.89	<0.000010	<0.00010	0.00063	0.000209	<0.00050	<0.0010
Davidson Creek	DC-05	Surface	Primary	VA23C4586-001	10/14/2023	6.17	<0.000010	3.4	0.0818	1.27	<0.000010	<0.00010	0.00072	0.000199	<0.00050	<0.0010
Davidson Creek	DC-05	Surface	Duplicate	VA23C4586-002	10/14/2023	6.07	<0.000010	3.34	0.0796	0.87	<0.000010	<0.00010	0.00075	0.000198	<0.00050	<0.0010
Davidson Creek	DC-05	Surface	Primary	VA23C4014-002	10/5/2023	6.36	<0.000010	3.06	0.0767	1.04	<0.000010	<0.00010	0.00164	0.000162	0.0005	<0.0010
Davidson Creek	DC-05	Surface	Primary	VA23C0875-003	9/4/2023	6.21	<0.000010	3.12	0.0744	1.1	<0.000010	<0.00010	0.00035	0.000164	<0.00050	<0.0010
Davidson Creek	DC-05	Surface	Primary	VA23B9219-002	8/16/2023	6.21	<0.000010	3	0.0681	1.73	<0.000010	<0.00010	0.00063	0.000125	0.0005	<0.0010
Davidson Creek	DC-05	Surface	Primary	VA23B7293-008	7/25/2023	6.07	<0.000010	3.12	0.0779	4.62	<0.000010	<0.00010	0.00123	0.000096	<0.00050	<0.0010
Davidson Creek	DC-05	Surface	Primary	VA23B4181-003	6/21/2023	6.01	<0.000010	2.43	0.0515	<0.50	<0.000010	<0.00010	0.001	0.00016	<0.00050	<0.0010
Davidson Creek	DC-05	Surface	Primary	VA23B2052-005	5/29/2023	5.19	<0.000010	1.94	0.0368	<0.50	<0.000010	<0.00010	0.00082	0.000148	<0.00050	<0.0010
Davidson Creek	DC-05	Surface	Primary	VA23B1529-005	5/23/2023	5.14	<0.000010	1.66	0.0291	<0.50	<0.000010	<0.00010	0.00137	0.000176	<0.00050	<0.0010
Davidson Creek	DC-05	Surface	Primary	VA23B0766-010	5/16/2023	4.24	<0.000010	1.38	0.0233	<0.50	<0.000010	<0.00010	0.00146	0.000184	<0.00050	<0.0010
Davidson Creek	DC-05	Surface	Primary	VA23B0222-006	5/9/2023	4.48	0.000013	1.46	0.0282	<0.50	<0.000010	<0.00010	0.00491	0.000155	0.00054	0.0012
Davidson Creek	DC-05	Surface	Primary	VA23A9893-002	5/4/2023	4.65	0.000016	1.66	0.035	<0.50	<0.000010	<0.00010	0.00784	0.000156	0.00065	0.002
Davidson Creek	DC-05	Surface	Primary	VA23A7852-002	4/11/2023	6.24	<0.000010	3.72	0.0957	1.17	<0.000010	<0.00010	<0.00030	0.000356	<0.00050	<0.0010
Davidson Creek	DC-05	Surface	Primary	VA23A5627-002	3/14/2023	6.78	<0.000010	3.74	0.101	0.99	<0.000010	<0.00010	<0.00030	0.000381	<0.00050	<0.0010
Davidson Creek	DC-05	Surface	Primary	VA23A2861-004	2/6/2023	5.95	<0.000010	3.53	0.0925	1.21	<0.000010	<0.00010	<0.00030	0.000324	<0.00050	<0.0010
Davidson Creek	DC-05	Surface	Primary	VA23A1261-002	1/17/2023	6.68	<0.000010	3.29	0.0945	0.98	<0.000010	<0.00010	<0.00030	0.000335	<0.00050	<0.0010
Davidson Creek	DC-05	Surface	Duplicate	VA23A1261-005	1/17/2023	6.29	<0.000010	3.38	0.0965	0.85	<0.000010	<0.00010	<0.00030	0.000332	<0.00050	<0.0010

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Dissolved Metals *(cont'd)*										
						Silicon (Si)-Dissolved	Silver (Ag)-Dissolved	Sodium (Na)-Dissolved	Strontium (Sr)-Dissolved	Sulfur (S)-Dissolved	Thallium (Tl)-Dissolved	Tin (Sn)-Dissolved	Titanium (Ti)-Dissolved	Uranium (U)-Dissolved	Vanadium (V)-Dissolved	Zinc (Zn)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Davidson Creek	DC-10	Surface	Primary	VA23D0155-003	12/15/2023	6.86	<0.000010	3.13	0.079	1.13	<0.000010	<0.00010	0.00075	0.000162	<0.00050	<0.0010
Davidson Creek	DC-10	Surface	Duplicate	VA23D0155-004	12/15/2023	6.95	<0.000010	3.13	0.0797	1.02	<0.000010	<0.00010	0.00076	0.000166	<0.00050	<0.0010
Davidson Creek	DC-10	Surface	Primary	VA23C7190-003	11/8/2023	6.2	<0.000010	2.86	0.0685	1.32	<0.000010	<0.00010	0.00169	0.000127	<0.00050	<0.0010
Davidson Creek	DC-10	Surface	Primary	VA23C4014-003	10/5/2023	6.2	<0.000010	3.2	0.081	1.02	<0.000010	<0.00010	0.00107	0.000151	<0.00050	<0.0010
Davidson Creek	DC-10	Surface	Primary	VA23C2388-003	9/19/2023	6.2	<0.000010	3.28	0.0857	1.08	<0.000010	<0.00010	<0.00030	0.000165	<0.00050	<0.0010
Davidson Creek	DC-10	Surface	Primary	VA23B9219-003	8/16/2023	6.17	<0.000010	2.93	0.0725	1.92	<0.000010	<0.00010	0.00049	0.000118	<0.00050	<0.0010
Davidson Creek	DC-10	Surface	Primary	VA23B7293-007	7/25/2023	6.1	<0.000010	3.11	0.077	4.54	<0.000010	<0.00010	0.00095	0.000094	<0.00050	<0.0010
Davidson Creek	DC-10	Surface	Primary	VA23B4181-004	6/21/2023	5.7	<0.000010	2.27	0.0461	<0.50	<0.000010	<0.00010	0.00081	0.000138	<0.00050	<0.0010
Davidson Creek	DC-10	Surface	Primary	VA23A9893-003	5/4/2023	4.64	0.000016	1.68	0.035	<0.50	<0.000010	<0.00010	0.00745	0.000153	0.00066	0.0018
Davidson Creek	DC-10	Surface	Primary	VA23A7852-003	4/11/2023	6.32	<0.000010	3.66	0.0988	1.07	<0.000010	<0.00010	<0.00030	0.000387	<0.00050	<0.0010
Davidson Creek	DC-10	Surface	Primary	VA23A5627-003	3/14/2023	6.68	<0.000010	3.76	0.102	1.1	<0.000010	<0.00010	<0.00030	0.000381	<0.00050	<0.0010
Davidson Creek	DC-10	Surface	Primary	VA23A2861-005	2/6/2023	6	<0.000010	3.6	0.0959	1.11	<0.000010	<0.00010	<0.00030	0.000329	<0.00050	<0.0010
Davidson Creek	DC-10	Surface	Duplicate	VA23A2861-006	2/6/2023	5.86	<0.000010	3.5	0.0923	1.33	<0.000010	<0.00010	<0.00030	0.000336	<0.00050	<0.0010
Davidson Creek	DC-10	Surface	Primary	VA23A1261-003	1/17/2023	6.23	<0.000010	3.46	0.0974	0.89	<0.000010	<0.00010	<0.00030	0.000355	<0.00050	<0.0010
Davidson Creek	DC-15	Surface	Primary	VA23D0155-005	12/15/2023	6.97	<0.000010	3.42	0.0913	1.04	<0.000010	<0.00010	0.0003	0.000165	<0.00050	<0.0010
Davidson Creek	DC-15	Surface	Primary	VA23C7190-004	11/8/2023	6.08	<0.000010	3.11	0.0785	1.05	<0.000010	<0.00010	0.00124	0.000124	<0.00050	<0.0010
Davidson Creek	DC-15	Surface	Primary	VA23C4279-006	10/10/2023	6.74	<0.000010	3.57	0.0966	0.95	<0.000010	<0.00010	<0.00030	0.000152	<0.00050	<0.0010
Davidson Creek	DC-15	Surface	Primary	VA23C2388-004	9/19/2023	6.38	<0.000010	3.51	0.0929	1.07	<0.000010	<0.00010	<0.00030	0.00014	<0.00050	<0.0010
Davidson Creek	DC-15	Surface	Primary	VA23B9219-004	8/16/2023	6.38	<0.000010	3.21	0.0798	1.44	<0.000010	<0.00010	0.00033	0.000096	<0.00050	<0.0010
Davidson Creek	DC-15	Surface	Primary	VA23B7293-006	7/25/2023	6.18	<0.000010	3.04	0.0723	3.49	<0.000010	<0.00010	0.00074	0.000083	<0.00050	<0.0010
Davidson Creek	DC-15	Surface	Duplicate	VA23B7293-011	7/25/2023	6.04	<0.000010	3.22	0.075	3.49	<0.000010	0.00018	0.00077	0.000077	<0.00050	0.0022
Davidson Creek	DC-15	Surface	Primary	VA23B4181-005	6/21/2023	5.96	<0.000010	2.48	0.0542	<0.50	<0.000010	<0.00010	0.00054	0.000112	<0.00050	<0.0010
Davidson Creek	DC-15	Surface	Primary	VA23A9893-004	5/4/2023	4.7	0.000016	1.83	0.0386	0.53	<0.000010	<0.00010	0.00737	0.00016	0.00068	0.0018
Davidson Creek	DC-15	Surface	Primary	VA23A9076-001	4/25/2023	6.04	<0.000010	3.54	0.102	1.08	<0.000010	<0.00010	<0.00030	0.000246	<0.00050	<0.0010
Davidson Creek	DC-15	Surface	Primary	VA23A5821-002	3/15/2023	6.57	<0.000010	3.81	0.105	0.92	<0.000010	<0.00010	<0.00030	0.000306	<0.00050	<0.0010
Davidson Creek	DC-15	Surface	Primary	VA23A2670-003	2/4/2023	6.56	<0.000010	3.67	0.1	0.86	<0.000010	<0.00010	<0.00030	0.000264	<0.00050	<0.0010
Davidson Creek	DC-15	Surface	Duplicate	VA23A2670-004	2/4/2023	6.35	<0.000010	3.6	0.1	0.83	<0.000010	<0.00010	<0.00030	0.000265	<0.00050	<0.0010
Davidson Creek	DC-15	Surface	Primary	VA23A1491-004	1/19/2023	6.32	<0.000010	3.74	0.104	1.18	<0.000010	<0.00010	<0.00030	0.000297	<0.00050	<0.0010
Davidson Creek	DC-20	Surface	Primary	VA23C9626-004	12/6/2023	6.66	<0.000010	3.28	0.0825	1.24	<0.000010	<0.00010	0.00061	0.000154	<0.00050	<0.0010
Davidson Creek	DC-20	Surface	Primary	VA23C6498-006	11/1/2023	6.46	<0.000010	3.56	0.0926	0.8	<0.000010	<0.00010	<0.00030	0.00017	<0.00050	<0.0010
Davidson Creek	DC-20	Surface	Primary	VA23C5771-005	10/24/2023	6.64	<0.000010	3.28	0.0909	0.98	<0.000010	<0.00010	<0.00030	0.000148	<0.00050	<0.0010
Davidson Creek	DC-20	Surface	Primary	VA23C5184-002	10/20/2023	6.51	<0.000010	4.1	0.101	0.95	<0.000010	<0.00010	<0.00030	0.000169	<0.00050	<0.0010
Davidson Creek	DC-20	Surface	Duplicate	VA23C5184-003	10/20/2023	6.66	<0.000010	3.9	0.0991	0.96	<0.000010	<0.00010	<0.00030	0.000166	<0.00050	0.0025
Davidson Creek	DC-20	Surface	Primary	VA23C4458-004	10/11/2023	6.67	<0.000010	3.72	0.0965	0.76	<0.000010	<0.00010	<0.00030	0.000152	<0.00050	<0.0010
Davidson Creek	DC-20	Surface	Primary	VA23C3871-006	10/4/2023	6.72	<0.000010	3.77	0.0911	1	<0.000010	<0.00010	<0.00030	0.000137	<0.00050	<0.0010
Davidson Creek	DC-20	Surface	Primary	VA23C2546-001	9/20/2023	6.4	<0.000010	3.6	0.0967	0.95	<0.000010	<0.00010	<0.00030	0.000131	<0.00050	<0.0010
Davidson Creek	DC-20	Surface	Duplicate	VA23C2546-002	9/20/2023	6.35	<0.000010	3.69	0.0975	0.96	<0.000010	<0.00010	<0.00030	0.000129	<0.00050	<0.0010
Davidson Creek	DC-20	Surface	Primary	VA23B9723-001	8/22/2023	6.33	<0.000010	3.33	0.0852	0.99	<0.000010	<0.00010	<0.00030	0.000104	0.00059	<0.0010
Davidson Creek	DC-20	Surface	Primary	VA23B7734-005	7/31/2023	6.37	<0.000010	3.09	0.086	2.27	<0.000010	<0.00010	0.00033	0.000086	0.00056	<0.0010
Davidson Creek	DC-20	Surface	Primary	VA23B2847-003	6/6/2023	6.02	<0.000010	2.5	0.0586	<0.50	<0.000010	<0.00010	<0.00030	0.000106	0.00055	<0.0010
Davidson Creek	DC-20	Surface	Primary	VA23B2219-004	5/30/2023	6.01	<0.000010	2.22	0.0465	<0.50	<0.000010	<0.00010	0.00053	0.000109	0.00055	<0.0010
Davidson Creek	DC-20	Surface	Primary	VA23B1690-002	5/24/2023	5.44	<0.000010	2.03	0.0397	<0.50	<0.000010	<0.00010	0.00069	0.000133	0.00051	<0.0010
Davidson Creek	DC-20	Surface	Primary	VA23B1108-005	5/17/2023	4.46	<0.000010	1.55	0.0313	<0.50	<0.000010	<0.00010	0.00109	0.000173	0.00052	<0.0010
Davidson Creek	DC-20	Surface	Primary	VA23B0508-005	5/11/2023	4.51	<0.000010	1.61	0.0307	<0.50	<0.000010	<0.00010	0.00179	0.000156	0.00051	<0.0010
Davidson Creek	DC-20	Surface	Primary	VA23A9782-004	5/3/2023	5.32	0.000011	2.17	0.0489	<0.50	<0.000010	<0.00010	0.00311	0.000146	0.00072	<0.0010
Davidson Creek	DC-20	Surface	Primary	VA23A9207-003	4/26/2023	5.39	<0.000010	3.21	0.0859	0.7	<0.000010	<0.00010	0.00036	0.000254	<0.00050	<0.0010

Notes:
"-" indicates parameter was not analyzed.
"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Dissolved Metals *(cont'd)*										
						Silicon (Si)-Dissolved	Silver (Ag)-Dissolved	Sodium (Na)-Dissolved	Strontium (Sr)-Dissolved	Sulfur (S)-Dissolved	Thallium (Tl)-Dissolved	Tin (Sn)-Dissolved	Titanium (Ti)-Dissolved	Uranium (U)-Dissolved	Vanadium (V)-Dissolved	Zinc (Zn)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Davidson Creek	DC-20	Surface	Primary	VA23A6097-005	3/20/2023	6.73	<0.000010	3.9	0.113	0.77	<0.000010	<0.00010	<0.00030	0.000342	<0.00050	<0.0010
Davidson Creek	DC-20	Surface	Primary	VA23A3560-002	2/14/2023	6.33	<0.000010	3.72	0.101	1.3	<0.000010	0.00019	<0.00030	0.000331	<0.00050	<0.0010
Davidson Creek	DC-20	Surface	Primary	VA23A1889-001	1/24/2023	6.79	<0.000010	4.18	0.113	1.08	<0.000010	<0.00010	<0.00030	0.000312	<0.00050	0.004
Turtle Creek	TC-01	Surface	Primary	VA23D0165-002	12/14/2023	7.29	<0.000010	3.02	0.126	0.6	<0.000010	<0.00010	<0.00030	0.000177	0.00051	<0.0010
Turtle Creek	TC-01	Surface	Primary	VA23C6880-003	11/6/2023	6.94	<0.000010	2.77	0.111	0.71	<0.000010	<0.00010	<0.00030	0.000131	<0.00050	<0.0010
Turtle Creek	TC-01	Surface	Primary	VA23C4014-009	10/6/2023	7.12	<0.000010	2.86	0.117	0.52	<0.000010	<0.00010	<0.00030	0.000163	<0.00050	<0.0010
Turtle Creek	TC-01	Surface	Primary	VA23C1674-003	9/12/2023	7.47	<0.000010	2.88	0.12	0.56	<0.000010	<0.00010	<0.00030	0.00016	0.00058	<0.0010
Turtle Creek	TC-01	Surface	Primary	VA23B8906-007	8/15/2023	7.23	<0.000010	2.79	0.118	0.52	<0.000010	<0.00010	<0.00030	0.000195	0.00066	<0.0010
Turtle Creek	TC-01	Surface	Primary	VA23B7523-005	7/27/2023	5.98	<0.000010	2.76	0.126	<0.50	<0.000010	<0.00010	<0.00030	0.000203	0.00067	<0.0010
Turtle Creek	TC-01	Surface	Primary	VA23B4330-002	6/21/2023	4.9	<0.000010	2.77	0.119	0.61	<0.000010	<0.00010	<0.00030	0.000209	0.00071	<0.0010
Turtle Creek	TC-01	Surface	Duplicate	VA23B4330-007	6/21/2023	4.95	<0.000010	2.77	0.118	0.67	<0.000010	<0.00010	<0.00030	0.000202	0.00067	<0.0010
Turtle Creek	TC-01	Surface	Primary	VA23A9638-003	5/2/2023	6.29	<0.000010	2.52	0.109	0.54	<0.000010	<0.00010	<0.00030	0.000154	0.00061	<0.0010
Turtle Creek	TC-01	Surface	Primary	VA23A8158-004	4/13/2023	6.23	<0.000010	2.87	0.108	0.59	<0.000010	<0.00010	<0.00030	0.000156	<0.00050	<0.0010
Turtle Creek	TC-01	Surface	Primary	VA23A5821-003	3/15/2023	6.44	<0.000010	2.71	0.111	<0.50	<0.000010	<0.00010	<0.00030	0.000174	<0.00050	<0.0010
Turtle Creek	TC-01	Surface	Primary	VA23A3268-003	2/10/2023	6.15	<0.000010	2.68	0.109	<0.50	<0.000010	<0.00010	<0.00030	0.000198	<0.00050	<0.0010
Turtle Creek	TC-01	Surface	Primary	VA23A1491-001	1/19/2023	6.16	<0.000010	2.7	0.116	0.68	<0.000010	<0.00010	<0.00030	0.00021	<0.00050	<0.0010
Turtle Creek	TC-05	Surface	Primary	VA23D0165-003	12/14/2023	8.02	<0.000010	4.41	0.149	1.64	<0.000010	<0.00010	<0.00030	0.000336	<0.00050	0.0025
Turtle Creek	TC-05	Surface	Primary	VA23C6880-004	11/6/2023	7.1	<0.000010	3.96	0.123	1.32	<0.000010	<0.00010	<0.00030	0.000266	<0.00050	<0.0010
Turtle Creek	TC-05	Surface	Primary	VA23C4458-006	10/11/2023	7.11	<0.000010	4.2	0.138	1.14	<0.000010	<0.00010	<0.00030	0.000253	<0.00050	<0.0010
Turtle Creek	TC-05	Surface	Primary	VA23C1674-004	9/12/2023	6.56	<0.000010	4.11	0.139	1.07	<0.000010	<0.00010	<0.00030	0.000229	<0.00050	<0.0010
Turtle Creek	TC-05	Surface	Duplicate	VA23C1674-006	9/12/2023	6.4	<0.000010	4.09	0.137	1.12	<0.000010	<0.00010	<0.00030	0.000224	<0.00050	<0.0010
Turtle Creek	TC-05	Surface	Primary	VA23B8906-008	8/15/2023	6.27	<0.000010	3.76	0.132	1.05	<0.000010	<0.00010	0.00038	0.000187	0.00052	<0.0010
Turtle Creek	TC-05	Surface	Primary	VA23B4330-003	6/21/2023	5.15	<0.000010	3.5	0.124	0.9	<0.000010	<0.00010	<0.00030	0.000213	0.00054	<0.0010
Turtle Creek	TC-05	Surface	Primary	VA23B0364-005	5/10/2023	5.03	<0.000010	1.61	0.0415	<0.50	<0.000010	<0.00010	0.00467	0.00014	0.00067	<0.0010
Turtle Creek	TC-05	Surface	Primary	VA23A7852-004	4/11/2023	6.85	<0.000010	3.9	0.124	1.63	<0.000010	<0.00010	<0.00030	0.000383	<0.00050	<0.0010
Turtle Creek	TC-05	Surface	Primary	VA23A5821-004	3/15/2023	7.18	<0.000010	3.93	0.132	1.41	<0.000010	<0.00010	<0.00030	0.000354	<0.00050	<0.0010
Turtle Creek	TC-05	Surface	Primary	VA23A3268-002	2/10/2023	6.81	<0.000010	3.68	0.122	1.25	<0.000010	<0.00010	<0.00030	0.000332	<0.00050	<0.0010
Turtle Creek	TC-05	Surface	Primary	VA23A1491-002	1/19/2023	7.2	<0.000010	3.67	0.13	1.44	<0.000010	<0.00010	<0.00030	0.000315	<0.00050	<0.0010
Turtle Creek	TC-10	Surface	Primary	VA23D0165-004	12/14/2023	8	<0.000010	5.23	0.163	1.71	<0.000010	<0.00010	<0.00030	0.000288	<0.00050	<0.0010
Turtle Creek	TC-10	Surface	Duplicate	VA23D0165-005	12/14/2023	7.95	<0.000010	5.15	0.164	1.72	<0.000010	<0.00010	<0.00030	0.000281	<0.00050	<0.0010
Turtle Creek	TC-10	Surface	Primary	VA23C6880-005	11/6/2023	7.28	<0.000010	4.83	0.144	1.41	<0.000010	<0.00010	<0.00030	0.000213	<0.00050	<0.0010
Turtle Creek	TC-10	Surface	Primary	VA23C4014-010	10/6/2023	7.07	<0.000010	4.68	0.152	0.81	<0.000010	<0.00010	<0.00030	0.000154	<0.00050	<0.0010
Turtle Creek	TC-10	Surface	Primary	VA23C1674-005	9/12/2023	7.05	<0.000010	4.75	0.162	0.57	<0.000010	<0.00010	<0.00030	0.000165	<0.00050	<0.0010
Turtle Creek	TC-10	Surface	Primary	VA23C0266-005	8/28/2023	7.01	<0.000010	4.63	0.156	<0.50	<0.000010	<0.00010	<0.00030	0.000163	<0.00050	<0.0010
Turtle Creek	TC-10	Surface	Primary	VA23B7293-012	7/25/2023	6.32	<0.000010	4.29	0.155	<0.50	<0.000010	<0.00010	<0.00030	0.000164	<0.00050	<0.0010
Turtle Creek	TC-10	Surface	Primary	VA23B4330-004	6/21/2023	5.94	<0.000010	4.11	0.14	0.58	<0.000010	<0.00010	<0.00030	0.000144	<0.00050	<0.0010
Turtle Creek	TC-10	Surface	Primary	VA23A9638-004	5/2/2023	4.9	<0.000010	2.41	0.0684	0.64	<0.000010	<0.00010	0.00422	0.000085	0.00056	<0.0010
Turtle Creek	TC-10	Surface	Primary	VA23A7852-005	4/11/2023	6.95	<0.000010	4.41	0.138	1.36	<0.000010	<0.00010	<0.00030	0.000342	<0.00050	<0.0010
Turtle Creek	TC-10	Surface	Primary	VA23A5627-004	3/14/2023	7.74	<0.000010	4.56	0.15	1.54	<0.000010	<0.00010	<0.00030	0.000343	<0.00050	<0.0010
Turtle Creek	TC-10	Surface	Primary	VA23A3268-001	2/10/2023	6.88	<0.000010	4.18	0.132	1.42	<0.000010	<0.00010	<0.00030	0.000319	<0.00050	<0.0010
Turtle Creek	TC-10	Surface	Primary	VA23A1111-001	1/16/2023	7.91	<0.000010	4.6	0.149	1.22	<0.000010	<0.00010	<0.00030	0.000302	<0.00050	<0.0010
Turtle Creek	TC-15	Surface	Primary	VA23C6880-006	11/6/2023	6.81	<0.000010	4.87	0.125	1.02	<0.000010	<0.00010	<0.00030	0.000121	<0.00050	<0.0010
Turtle Creek	TC-15	Surface	Primary	VA23C4014-011	10/6/2023	7.2	<0.000010	5.06	0.142	<0.50	<0.000010	<0.00010	<0.00030	0.000142	<0.00050	<0.0010
Turtle Creek	TC-15	Surface	Primary	VA23C0266-004	8/28/2023	7.29	<0.000010	4.92	0.154	<0.50	<0.000010	<0.00010	<0.00030	0.000194	<0.00050	0.0121
Turtle Creek	TC-15	Surface	Primary	VA23B7523-006	7/27/2023	7.23	<0.000010	4.64	0.149	<0.50	<0.000010	<0.00010	<0.00030	0.000118	<0.00050	<0.0010
Turtle Creek	TC-15	Surface	Primary	VA23B4330-005	6/21/2023	6.39	<0.000010	4.29	0.128	0.54	<0.000010	<0.00010	<0.00030	0.00009	<0.00050	<0.0010

Notes:
"-" indicates parameter was not analyzed.
"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Dissolved Metals *(cont'd)*										
						Silicon (Si)-Dissolved	Silver (Ag)-Dissolved	Sodium (Na)-Dissolved	Strontium (Sr)-Dissolved	Sulfur (S)-Dissolved	Thallium (Tl)-Dissolved	Tin (Sn)-Dissolved	Titanium (Ti)-Dissolved	Uranium (U)-Dissolved	Vanadium (V)-Dissolved	Zinc (Zn)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Turtle Creek	TC-15	Surface	Primary	VA23A9638-005	5/2/2023	4.89	<0.000010	2.68	0.0826	0.97	<0.000010	<0.00010	0.00119	0.000082	<0.00050	<0.0010
Turtle Creek	TC-15	Surface	Primary	VA23A9207-004	4/26/2023	4.98	<0.000010	2.98	0.101	0.9	<0.000010	<0.00010	<0.00030	0.000233	<0.00050	0.0012
Creek 661	661-01	Surface	Primary	VA23C9661-001	12/7/2023	5.23	<0.000010	2.22	0.0349	<0.50	<0.000010	<0.00010	0.00033	0.000023	<0.00050	<0.0010
Creek 661	661-01	Surface	Duplicate	VA23C9661-002	12/7/2023	5.23	<0.000010	2.22	0.0365	<0.50	<0.000010	<0.00010	<0.00030	0.000018	<0.00050	<0.0010
Creek 661	661-01	Surface	Primary	VA23C7190-008	11/9/2023	5.16	<0.000010	2.04	0.0298	<0.50	<0.000010	<0.00010	<0.00030	0.000022	<0.00050	<0.0010
Creek 661	661-01	Surface	Primary	VA23C6383-001	10/31/2023	5.55	<0.000010	2.2	0.0357	<0.50	<0.000010	<0.00010	0.00037	0.000028	<0.00050	<0.0010
Creek 661	661-01	Surface	Primary	VA23C5894-003	10/25/2023	5.48	<0.000010	2.38	0.0419	<0.50	<0.000010	<0.00010	0.00037	0.000027	<0.00050	<0.0010
Creek 661	661-01	Surface	Primary	VA23C4858-001	10/16/2023	5.21	<0.000010	2.38	0.0374	<0.50	<0.000010	<0.00010	<0.00030	0.000024	<0.00050	<0.0010
Creek 661	661-01	Surface	Primary	VA23C4586-003	10/14/2023	5.19	<0.000010	2.39	0.0329	<0.50	<0.000010	<0.00010	0.00036	0.000028	<0.00050	<0.0010
Creek 661	661-01	Surface	Primary	VA23C4014-004	10/5/2023	5.62	<0.000010	2.31	0.0376	<0.50	<0.000010	<0.00010	<0.00030	0.000022	<0.00050	<0.0010
Creek 661	661-01	Surface	Primary	VA23C0875-002	9/4/2023	4.91	<0.000010	2.29	0.032	<0.50	<0.000010	<0.00010	<0.00030	0.000025	<0.00050	<0.0010
Creek 661	661-01	Surface	Primary	VA23B8906-006	8/15/2023	4.67	<0.000010	2.07	0.0339	<0.50	<0.000010	<0.00010	<0.00030	0.000026	<0.00050	<0.0010
Creek 661	661-01	Surface	Primary	VA23B7523-004	7/27/2023	3.59	<0.000010	1.84	0.0276	<0.50	<0.000010	<0.00010	0.00046	0.000027	<0.00050	<0.0010
Creek 661	661-01	Surface	Primary	VA23B3687-001	6/14/2023	3.79	<0.000010	1.72	0.0234	<0.50	<0.000010	<0.00010	0.00036	0.000037	<0.00050	<0.0010
Creek 661	661-01	Surface	Primary	VA23B2847-004	6/6/2023	3.29	<0.000010	1.52	0.0188	<0.50	<0.000010	<0.00010	0.00046	0.000041	<0.00050	<0.0010
Creek 661	661-01	Surface	Primary	VA23B2224-001	5/31/2023	3.64	<0.000010	1.55	0.0181	<0.50	<0.000010	<0.00010	0.00057	0.000044	<0.00050	<0.0010
Creek 661	661-01	Surface	Primary	VA23B1379-001	5/22/2023	3.3	<0.000010	1.42	0.0161	<0.50	<0.000010	<0.00010	<0.00060	0.000068	<0.00050	<0.0010
Creek 661	661-01	Surface	Duplicate	VA23B1379-002	5/22/2023	3.3	<0.000010	1.39	0.0165	<0.50	<0.000010	<0.00010	0.00092	0.000069	<0.00050	<0.0010
Creek 661	661-01	Surface	Primary	VA23B0766-007	5/16/2023	3.54	<0.000010	1.26	0.0153	<0.50	<0.000010	<0.00010	<0.00120	0.000071	<0.00050	<0.0010
Creek 661	661-01	Surface	Primary	VA23A8158-006	4/14/2023	4.8	<0.000010	2.07	0.0237	<0.50	<0.000010	<0.00010	0.00044	0.000029	<0.00050	<0.0010
Creek 661	661-01	Surface	Primary	VA23A6844-007	3/28/2023	4.92	<0.000010	1.98	0.0242	<0.50	<0.000010	<0.00010	0.00069	0.000032	<0.00050	<0.0010
Creek 661	661-01	Surface	Primary	VA23A4552-001	2/28/2023	4.34	<0.000010	1.93	0.0225	<0.50	<0.000010	<0.00010	0.00064	0.000037	<0.00050	<0.0010
Creek 661	661-01	Surface	Primary	VA23A1264-005	1/17/2023	4.94	<0.000010	1.7	0.0191	<0.50	<0.000010	<0.00010	0.00037	0.000044	<0.00050	<0.0010
Creek 661	661-04	Surface	Primary	VA23C9661-003	12/7/2023	7.84	<0.000010	3.48	0.0674	1.29	<0.000010	<0.00010	<0.00030	0.000051	<0.00050	0.0034
Creek 661	661-04	Surface	Primary	VA23C7190-009	11/9/2023	7.3	<0.000010	3.28	0.0574	1.38	<0.000010	<0.00010	<0.00030	0.000047	<0.00050	0.0032
Creek 661	661-04	Surface	Primary	VA23C6383-002	10/31/2023	7.84	<0.000010	3.43	0.064	0.72	<0.000010	<0.00010	<0.00030	0.000061	<0.00050	0.003
Creek 661	661-04	Surface	Primary	VA23C5894-002	10/25/2023	8.02	<0.000010	3.62	0.0657	1.26	<0.000010	<0.00010	<0.00030	0.000055	<0.00050	0.0039
Creek 661	661-04	Surface	Primary	VA23C4858-002	10/16/2023	7.67	<0.000010	3.64	0.071	0.8	<0.000010	<0.00010	<0.00030	0.000057	<0.00050	0.0031
Creek 661	661-04	Surface	Primary	VA23C4586-004	10/14/2023	7.25	<0.000010	3.7	0.0658	0.9	<0.000010	<0.00010	<0.00030	0.000057	<0.00050	0.0031
Creek 661	661-04	Surface	Primary	VA23C4014-005	10/5/2023	8.03	<0.000010	3.54	0.07	0.81	<0.000010	<0.00010	<0.00030	0.000053	<0.00050	0.0032
Creek 661	661-04	Surface	Primary	VA23C1991-004	9/14/2023	7.77	<0.000010	3.39	0.0689	<0.50	<0.000010	<0.00010	<0.00030	0.000071	0.0005	0.0035
Creek 661	661-04	Surface	Primary	VA23B8906-005	8/14/2023	7.46	<0.000010	3.41	0.0665	1.01	<0.000010	<0.00010	<0.00030	0.000056	0.00057	0.004
Creek 661	661-04	Surface	Primary	VA23B3687-002	6/14/2023	6.99	<0.000010	2.82	0.048	0.51	<0.000010	<0.00010	0.00042	0.00006	0.00058	0.0047
Creek 661	661-04	Surface	Duplicate	VA23B3687-003	6/14/2023	7.15	<0.000010	2.79	0.0491	0.65	<0.000010	<0.00010	0.00033	0.000059	0.00056	0.0047
Creek 661	661-04	Surface	Primary	VA23B2847-005	6/6/2023	6.56	<0.000010	2.4	0.0403	0.66	<0.000010	<0.00010	0.00033	0.000055	0.00056	0.005
Creek 661	661-04	Surface	Primary	VA23B2224-002	5/31/2023	6.24	<0.000010	2.13	0.0334	0.62	<0.000010	<0.00010	0.0006	0.000061	0.00051	0.006
Creek 661	661-04	Surface	Primary	VA23B1379-004	5/22/2023	5	<0.000010	1.94	0.0321	0.72	<0.000010	<0.00010	0.0008	0.000078	0.00064	0.0083
Creek 661	661-04	Surface	Primary	VA23B0766-008	5/16/2023	4.28	0.000013	1.64	0.0253	0.91	<0.000010	<0.00010	0.00118	0.000074	0.00051	0.0086
Creek 661	661-04	Surface	Primary	VA23A8158-007	4/14/2023	7.65	<0.000010	3.49	0.06	1.18	<0.000010	<0.00010	<0.00030	0.000056	<0.00050	0.003
Creek 661	661-04	Surface	Primary	VA23A6844-008	3/28/2023	8.02	<0.000010	3.39	0.063	0.89	<0.000010	<0.00010	<0.00030	0.000058	<0.00050	0.0036
Creek 661	661-04	Surface	Primary	VA23A3268-009	2/9/2023	7.32	<0.000010	3.13	0.056	0.97	<0.000010	<0.00010	<0.00030	0.000052	<0.00050	0.0034
Creek 661	661-04	Surface	Primary	VA23A1264-004	1/17/2023	7.56	<0.000010	3.34	0.0598	0.71	<0.000010	<0.00010	<0.00030	0.000054	<0.00050	0.004
Creek 661	661-05	Surface	Primary	VA23C9238-004	12/4/2023	9.06	<0.000010	3.76	0.0852	<0.50	<0.000010	<0.00010	0.00164	0.000205	0.00162	<0.0010
Creek 661	661-05	Surface	Primary	VA23C7190-005	11/8/2023	8.65	<0.000010	3.8	0.0782	<0.50	<0.000010	<0.00010	<0.00030	0.000142	0.00155	<0.0010
Creek 661	661-05	Surface	Duplicate	VA23C7190-006	11/8/2023	8.59	<0.000010	3.7	0.0795	<0.50	<0.000010	<0.00010	0.00044	0.000152	0.00155	<0.0010
Creek 661	661-05	Surface	Primary	VA23C4865-004	10/16/2023	9.26	<0.000010	4.07	0.0857	0.54	<0.000010	<0.00010	<0.00030	0.000177	0.00168	<0.0010

Notes:
"-" indicates parameter was not analyzed.
"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Dissolved Metals *(cont'd)*										
						Silicon (Si)-Dissolved	Silver (Ag)-Dissolved	Sodium (Na)-Dissolved	Strontium (Sr)-Dissolved	Sulfur (S)-Dissolved	Thallium (Tl)-Dissolved	Tin (Sn)-Dissolved	Titanium (Ti)-Dissolved	Uranium (U)-Dissolved	Vanadium (V)-Dissolved	Zinc (Zn)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Creek 661	661-05	Surface	Primary	VA23C1491-002	9/11/2023	8.63	<0.000010	3.76	0.0912	<0.50	<0.000010	<0.00010	<0.00030	0.000182	0.00162	<0.0010
Creek 661	661-05	Surface	Primary	VA23B9219-005	8/16/2023	8.26	<0.000010	3.72	0.0862	<0.50	<0.000010	<0.00010	0.00082	0.000169	0.00164	<0.0010
Creek 661	661-05	Surface	Primary	VA23B7293-010	7/25/2023	7.27	<0.000010	3.36	0.0721	<0.50	<0.000010	<0.00010	0.00066	0.000112	0.00155	<0.0010
Creek 661	661-05	Surface	Primary	VA23B4181-001	6/21/2023	8.08	<0.000010	3.36	0.0678	<0.50	<0.000010	<0.00010	0.00085	0.000106	0.00159	<0.0010
Creek 661	661-05	Surface	Primary	VA23B0766-005	5/15/2023	6.13	<0.000010	2.21	0.0422	<0.50	<0.000010	<0.00010	0.00217	0.000115	0.00142	<0.0010
Creek 661	661-05	Surface	Primary	VA23A9322-001	4/27/2023	8.02	<0.000010	3.45	0.0731	0.58	<0.000010	<0.00010	0.00059	0.000125	0.00155	<0.0010
Creek 661	661-05	Surface	Primary	VA23A5821-001	3/15/2023	8.41	<0.000010	3.78	0.0799	<0.50	<0.000010	<0.00010	<0.00030	0.000186	0.00172	<0.0010
Creek 661	661-05	Surface	Primary	VA23A2670-001	2/4/2023	8.8	<0.000010	3.69	0.0789	<0.50	<0.000010	<0.00010	<0.00030	0.000178	0.00174	<0.0010
Creek 661	661-05	Surface	Primary	VA23A1491-003	1/19/2023	8.44	<0.000010	3.7	0.0804	<0.50	<0.000010	<0.00010	<0.00030	0.000187	0.00177	<0.0010
Creek 661	661-03	Surface	Primary	VA23C9238-001	12/4/2023	7.64	<0.000010	3.41	0.0632	<0.50	<0.000010	<0.00010	0.00038	0.000046	<0.00050	<0.0010
Creek 661	661-03	Surface	Primary	VA23C6622-002	11/2/2023	7.75	<0.000010	3.45	0.0768	<0.50	<0.000010	<0.00010	<0.00030	0.000047	<0.00050	<0.0010
Creek 661	661-03	Surface	Primary	VA23C5577-001	10/23/2023	8.23	<0.000010	3.56	0.0672	<0.50	<0.000010	<0.00010	<0.00030	0.000042	<0.00050	<0.0010
Creek 661	661-03	Surface	Primary	VA23C4865-003	10/16/2023	9.79	<0.000010	4.5	0.0932	<0.50	<0.000010	<0.00010	<0.00030	0.000094	<0.00050	<0.0010
Creek 661	661-03	Surface	Primary	VA23C4279-004	10/10/2023	9.42	<0.000010	4.28	0.0968	<0.50	<0.000010	<0.00010	<0.00030	0.000109	<0.00050	<0.0010
Creek 661	661-03	Surface	Duplicate	VA23C4279-005	10/10/2023	9.36	<0.000010	4.3	0.0964	<0.50	<0.000010	<0.00010	<0.00030	0.000104	<0.00050	<0.0010
Creek 661	661-03	Surface	Primary	VA23C3847-004	10/3/2023	9.59	<0.000010	4.46	0.0951	<0.50	<0.000010	<0.00010	<0.00030	0.000105	<0.00050	<0.0010
Creek 661	661-03	Surface	Primary	VA23C1491-001	9/11/2023	9.33	<0.000010	4.04	0.0974	<0.50	<0.000010	<0.00010	<0.00030	0.000103	<0.00050	<0.0010
Creek 661	661-03	Surface	Primary	VA23B9359-002	8/17/2023	8.53	<0.000010	4.07	0.0846	<0.50	<0.000010	<0.00010	<0.00030	0.00006	<0.00050	<0.0010
Creek 661	661-03	Surface	Primary	VA23B7293-003	7/25/2023	7.38	<0.000010	3.22	0.066	<0.50	<0.000010	<0.00010	0.0007	0.000044	<0.00050	<0.0010
Creek 661	661-03	Surface	Primary	VA23B3987-002	6/19/2023	7.11	<0.000010	3.31	0.0634	<0.50	<0.000010	<0.00010	0.00044	0.000049	<0.00050	<0.0010
Creek 661	661-03	Surface	Primary	VA23B2052-002	5/29/2023	6.22	<0.000010	2.64	0.0466	<0.50	<0.000010	<0.00010	0.00063	0.00005	<0.00050	<0.0010
Creek 661	661-03	Surface	Primary	VA23B1529-001	5/23/2023	6.3	<0.000010	2.56	0.0407	<0.50	<0.000010	<0.00010	0.00053	0.000044	<0.00050	<0.0010
Creek 661	661-03	Surface	Primary	VA23B0766-004	5/15/2023	5.68	<0.000010	2.45	0.0399	<0.50	<0.000010	<0.00010	<0.00090	0.000042	<0.00050	<0.0010
Creek 661	661-03	Surface	Primary	VA23B0222-001	5/9/2023	5.39	<0.000010	2.1	0.0334	<0.50	<0.000010	<0.00010	0.00233	0.000059	<0.00050	<0.0010
Creek 661	661-03	Surface	Duplicate	VA23B0222-002	5/9/2023	5.29	<0.000010	2.23	0.0327	<0.50	<0.000010	<0.00010	0.00226	0.000053	<0.00050	<0.0010
Creek 661	661-03	Surface	Primary	VA23A9531-006	5/1/2023	5.45	<0.000010	2.38	0.0356	<0.50	<0.000010	<0.00010	0.00201	0.000037	<0.00050	<0.0010
Creek 661	661-03	Surface	Primary	VA23A8011-002	4/12/2023	7.05	<0.000010	3.32	0.0551	<0.50	<0.000010	<0.00010	0.00072	0.000044	<0.00050	<0.0010
Creek 661	661-03	Surface	Primary	VA23A5501-001	3/13/2023	7.31	<0.000010	3.18	0.0608	<0.50	<0.000010	<0.00010	0.00083	0.000056	<0.00050	<0.0010
Creek 661	661-03	Surface	Primary	VA23A2712-002	2/1/2023	6.85	<0.000010	2.84	0.0518	1.14	<0.000010	<0.00010	0.00053	0.00004	<0.00050	<0.0010
Creek 661	661-10	Surface	Primary	VA23C9238-002	12/4/2023	8.06	<0.000010	3.54	0.0675	0.85	<0.000010	<0.00010	0.00076	0.000075	0.00057	0.0019
Creek 661	661-10	Surface	Primary	VA23C6622-001	11/2/2023	7.55	<0.000010	3.29	0.0682	0.69	<0.000010	<0.00010	0.0004	0.000072	0.00052	0.0022
Creek 661	661-10	Surface	Primary	VA23C5577-002	10/23/2023	7.75	<0.000010	3.51	0.0596	0.84	<0.000010	<0.00010	0.00048	0.000077	0.00062	0.0022
Creek 661	661-10	Surface	Duplicate	VA23C5577-003	10/23/2023	7.72	<0.000010	3.44	0.0646	0.86	<0.000010	<0.00010	0.00052	0.000077	0.00062	0.0022
Creek 661	661-10	Surface	Primary	VA23C4865-005	10/16/2023	7.95	<0.000010	3.62	0.0634	0.71	<0.000010	<0.00010	0.00056	0.000087	0.00076	0.0021
Creek 661	661-10	Surface	Primary	VA23C4279-003	10/10/2023	7.64	<0.000010	3.47	0.0677	0.55	<0.000010	<0.00010	0.00065	0.000096	0.00082	0.0024
Creek 661	661-10	Surface	Primary	VA23C3847-003	10/3/2023	7.81	<0.000010	3.48	0.0661	0.52	<0.000010	<0.00010	0.00051	0.000095	0.00081	0.0019
Creek 661	661-10	Surface	Primary	VA23C0875-001	9/4/2023	7.01	<0.000010	3.42	0.0667	<0.50	<0.000010	<0.00010	0.00073	0.000099	0.00089	0.0025
Creek 661	661-10	Surface	Primary	VA23B9359-001	8/17/2023	6.54	<0.000010	3.48	0.0687	<0.50	<0.000010	<0.00010	0.00056	0.000089	0.00104	0.0017
Creek 661	661-10	Surface	Primary	VA23B7293-001	7/25/2023	6.28	<0.000010	3.14	0.0589	1.33	<0.000010	<0.00010	0.0006	0.000072	0.00084	0.0024
Creek 661	661-10	Surface	Primary	VA23B3987-001	6/19/2023	5.91	<0.000010	2.77	0.047	<0.50	<0.000010	<0.00010	0.00077	0.000076	0.00085	0.0025
Creek 661	661-10	Surface	Primary	VA23B2052-001	5/29/2023	5.15	<0.000010	2.17	0.0339	0.69	<0.000010	<0.00010	0.00116	0.000083	0.00084	0.0029
Creek 661	661-10	Surface	Primary	VA23B1529-002	5/23/2023	5.05	<0.000010	2.08	0.0279	<0.50	<0.000010	<0.00010	0.00083	0.000087	0.00078	0.003
Creek 661	661-10	Surface	Primary	VA23B0766-003	5/15/2023	4.31	<0.000010	1.64	0.0238	<0.50	<0.000010	<0.00010	0.00119	0.000085	0.00071	0.0039
Creek 661	661-10	Surface	Primary	VA23B0222-003	5/9/2023	4.53	0.000017	1.64	0.0252	<0.50	<0.000010	<0.00010	0.0044	0.000097	0.00086	0.0038
Creek 661	661-10	Surface	Primary	VA23A9531-001	5/1/2023	5.8	<0.000010	2.46	0.0477	0.86	<0.000010	<0.00010	0.00382	0.000088	0.001	0.004
Creek 661	661-10	Surface	Primary	VA23A8011-001	4/12/2023	7.66	<0.000010	3.61	0.0651	0.62	<0.000010	<0.00010	0.00031	0.000131	0.00094	0.0012

Notes:
"-" indicates parameter was not analyzed.
"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Dissolved Metals *(cont'd)*										
						Silicon (Si)-Dissolved	Silver (Ag)-Dissolved	Sodium (Na)-Dissolved	Strontium (Sr)-Dissolved	Sulfur (S)-Dissolved	Thallium (Tl)-Dissolved	Tin (Sn)-Dissolved	Titanium (Ti)-Dissolved	Uranium (U)-Dissolved	Vanadium (V)-Dissolved	Zinc (Zn)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Creek 661	661-10	Surface	Duplicate	VA23A8011-005	4/12/2023	7.64	<0.000010	3.53	0.0663	0.61	<0.000010	<0.00010	0.00033	0.000136	0.00095	0.0012
Creek 661	661-10	Surface	Primary	VA23A5501-002	3/13/2023	7.99	<0.000010	3.38	0.0681	<0.50	<0.000010	<0.00010	<0.00030	0.000128	0.00096	0.0014
Creek 661	661-10	Surface	Primary	VA23A2712-001	2/1/2023	7.67	<0.000010	3.34	0.0672	<0.50	<0.000010	<0.00010	<0.00030	0.000117	0.0009	0.0016
Creek 661	661-10	Surface	Primary	VA23A0821-002	1/11/2023	8.34	<0.000010	3.46	0.0661	<0.50	<0.000010	<0.00010	0.00035	0.00014	0.00108	0.0021
Creek 661	661-20	Surface	Primary	VA23C6622-005	11/2/2023	7.45	<0.000010	4.78	0.104	0.9	<0.000010	<0.00010	<0.00030	0.000341	0.00052	<0.0010
Creek 661	661-20	Surface	Duplicate	VA23C6622-006	11/2/2023	7.45	<0.000010	4.75	0.105	0.84	<0.000010	<0.00010	<0.00030	0.000346	0.00052	<0.0010
Creek 661	661-20	Surface	Primary	VA23C0762-004	8/31/2023	7.46	<0.000010	4.96	0.105	0.56	<0.000010	<0.00010	0.00032	0.000334	0.00087	<0.0010
Creek 661	661-20	Surface	Primary	VA23B7293-004	7/25/2023	6.66	<0.000010	4.22	0.0926	<0.50	<0.000010	<0.00010	0.00187	0.000243	0.00098	<0.0010
Creek 661	661-20	Surface	Primary	VA23B3987-003	6/19/2023	6.52	<0.000010	4.35	0.0885	0.55	<0.000010	<0.00010	0.00035	0.000274	0.00093	<0.0010
Creek 661	661-20	Surface	Primary	VA23A9531-002	5/1/2023	6.12	<0.000010	2.83	0.0574	0.62	<0.000010	<0.00010	0.00384	0.000148	0.001	<0.0010
Creek 661	661-20	Surface	Primary	VA23A8011-004	4/12/2023	7.44	<0.000010	4.52	0.0897	0.74	<0.000010	<0.00010	0.00295	0.000332	0.00083	<0.0010
Creek 661	661-20	Surface	Primary	VA23A5501-003	3/13/2023	7.94	<0.000010	4.44	0.0884	0.71	<0.000010	<0.00010	<0.00030	0.000302	0.00063	<0.0010
Creek 661	661-20	Surface	Primary	VA23A2670-002	2/4/2023	7.64	<0.000010	4.26	0.0838	0.55	<0.000010	<0.00010	<0.00030	0.000254	0.00068	<0.0010
Creek 661	661-20	Surface	Primary	VA23A0821-003	1/11/2023	7.95	<0.000010	4.55	0.0929	0.78	<0.000010	<0.00010	<0.00030	0.000345	0.00068	<0.0010
Creek 661	661-20	Surface	Duplicate	VA23A0821-004	1/11/2023	8.07	<0.000010	4.51	0.0954	0.62	<0.000010	<0.00010	<0.00030	0.000355	0.00064	<0.0010
Chedakuz Creek	CC-03	Surface	Primary	VA23C9238-003	12/4/2023	8.12	<0.000010	5.68	0.134	2.19	<0.000010	<0.00010	<0.00030	0.000328	<0.00050	<0.0010
Chedakuz Creek	CC-03	Surface	Primary	VA23C6622-003	11/2/2023	7.35	<0.000010	5.37	0.132	2.21	<0.000010	<0.00010	<0.00030	0.000295	<0.00050	<0.0010
Chedakuz Creek	CC-03	Surface	Primary	VA23C5577-004	10/23/2023	7.84	<0.000010	5.48	0.122	1.93	<0.000010	<0.00010	<0.00030	0.000252	<0.00050	<0.0010
Chedakuz Creek	CC-03	Surface	Primary	VA23C4865-001	10/16/2023	8.2	<0.000010	5.84	0.128	2	<0.000010	<0.00010	<0.00030	0.000245	<0.00050	<0.0010
Chedakuz Creek	CC-03	Surface	Primary	VA23C4279-001	10/10/2023	7.79	<0.000010	5.64	0.134	1.67	<0.000010	<0.00010	<0.00030	0.000265	<0.00050	<0.0010
Chedakuz Creek	CC-03	Surface	Primary	VA23C3847-001	10/3/2023	7.74	<0.000010	5.58	0.134	1.95	<0.000010	<0.00010	<0.00030	0.000261	<0.00050	<0.0010
Chedakuz Creek	CC-03	Surface	Primary	VA23C1491-003	9/11/2023	7.41	<0.000010	5.28	0.142	1.29	<0.000010	<0.00010	<0.00030	0.000251	<0.00050	<0.0010
Chedakuz Creek	CC-03	Surface	Primary	VA23C0762-002	8/31/2023	7.43	<0.000010	5.29	0.128	1.36	<0.000010	<0.00010	<0.00030	0.000213	0.00051	<0.0010
Chedakuz Creek	CC-03	Surface	Primary	VA23B7293-005	7/25/2023	6.61	<0.000010	4.54	0.119	1.32	<0.000010	<0.00010	<0.00030	0.00015	<0.00050	<0.0010
Chedakuz Creek	CC-03	Surface	Primary	VA23B3987-004	6/19/2023	6.41	<0.000010	4.35	0.113	1.99	<0.000010	<0.00010	<0.00030	0.000161	<0.00050	<0.0010
Chedakuz Creek	CC-03	Surface	Primary	VA23B2052-003	5/29/2023	5.63	<0.000010	3.3	0.0925	1.1	<0.000010	<0.00010	0.00032	0.000082	0.00053	<0.0010
Chedakuz Creek	CC-03	Surface	Primary	VA23B1529-003	5/23/2023	5.69	<0.000010	3.15	0.0844	0.67	<0.000010	<0.00010	0.0003	0.000065	0.00051	<0.0010
Chedakuz Creek	CC-03	Surface	Primary	VA23B0766-001	5/15/2023	5.06	<0.000010	3	0.0785	0.73	<0.000010	<0.00010	<0.00060	0.000051	0.00051	<0.0010
Chedakuz Creek	CC-03	Surface	Primary	VA23B0222-004	5/9/2023	4.19	<0.000010	2.26	0.0547	0.61	<0.000010	<0.00010	0.0016	0.000038	<0.00050	<0.0010
Chedakuz Creek	CC-03	Surface	Primary	VA23A9531-004	5/1/2023	4.91	<0.000010	2.44	0.0537	0.9	<0.000010	<0.00010	0.00732	0.000049	0.00062	<0.0010
Chedakuz Creek	CC-03	Surface	Duplicate	VA23A9531-005	5/1/2023	4.94	<0.000010	2.39	0.054	0.79	<0.000010	<0.00010	0.00774	0.00005	0.00065	<0.0010
Chedakuz Creek	CC-03	Surface	Primary	VA23A8011-003	4/12/2023	6.43	<0.000010	4.4	0.104	1.12	<0.000010	<0.00010	<0.00090	0.000134	<0.00050	<0.0010
Chedakuz Creek	CC-03	Surface	Primary	VA23A5501-004	3/13/2023	7.13	<0.000010	4.32	0.113	1.12	<0.000010	<0.00010	<0.00030	0.000133	<0.00050	<0.0010
Chedakuz Creek	CC-03	Surface	Duplicate	VA23A5501-005	3/13/2023	7.28	<0.000010	4.39	0.112	1.21	<0.000010	<0.00010	<0.00030	0.000134	<0.00050	<0.0010
Chedakuz Creek	CC-03	Surface	Primary	VA23A2712-003	2/1/2023	6.7	<0.000010	4.28	0.112	1.07	<0.000010	<0.00010	<0.00030	0.000134	<0.00050	<0.0010
Chedakuz Creek	CC-03	Surface	Primary	VA23A0821-001	1/11/2023	7.35	<0.000010	4.38	0.117	1.35	<0.000010	<0.00010	<0.00030	0.000142	<0.00050	<0.0010
Chedakuz Creek	CC-05	Surface	Primary	VA23C6622-004	11/2/2023	7.22	<0.000010	4.9	0.116	1.37	<0.000010	<0.00010	<0.00030	0.000318	<0.00050	<0.0010
Chedakuz Creek	CC-05	Surface	Primary	VA23C5577-005	10/23/2023	7.61	<0.000010	4.99	0.109	1.25	<0.000010	<0.00010	<0.00030	0.000287	<0.00050	<0.0010
Chedakuz Creek	CC-05	Surface	Primary	VA23C4865-002	10/16/2023	7.84	<0.000010	5.42	0.116	1.4	<0.000010	<0.00010	<0.00030	0.000286	<0.00050	<0.0010
Chedakuz Creek	CC-05	Surface	Primary	VA23C4279-002	10/10/2023	7.64	<0.000010	5.16	0.118	1.18	<0.000010	<0.00010	<0.00030	0.000297	<0.00050	<0.0010
Chedakuz Creek	CC-05	Surface	Primary	VA23C3847-002	10/3/2023	7.69	<0.000010	5.2	0.12	1.23	<0.000010	<0.00010	<0.00030	0.000301	<0.00050	<0.0010
Chedakuz Creek	CC-05	Surface	Primary	VA23C0762-001	8/31/2023	7.28	<0.000010	5.01	0.12	0.86	<0.000010	<0.00010	<0.00030	0.000276	0.00063	<0.0010
Chedakuz Creek	CC-05	Surface	Duplicate	VA23C0762-003	8/31/2023	7.29	<0.000010	5	0.122	0.88	<0.000010	<0.00010	<0.00030	0.000275	0.00065	<0.0010
Chedakuz Creek	CC-05	Surface	Primary	VA23B2052-004	5/29/2023	5.73	<0.000010	3.25	0.0879	1	<0.000010	<0.00010	0.00039	0.000106	0.00065	<0.0010
Chedakuz Creek	CC-05	Surface	Primary	VA23B1529-004	5/23/2023	5.91	<0.000010	3.08	0.0747	0.55	<0.000010	<0.00010	0.00032	0.000084	0.00063	<0.0010
Chedakuz Creek	CC-05	Surface	Primary	VA23B0766-002	5/15/2023	5	<0.000010	2.58	0.059	0.74	<0.000010	<0.00010	0.00069	0.000086	0.00066	<0.0010

Notes:
"-" indicates parameter was not analyzed.
"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Dissolved Metals *(cont'd)*										
						Silicon (Si)-Dissolved	Silver (Ag)-Dissolved	Sodium (Na)-Dissolved	Strontium (Sr)-Dissolved	Sulfur (S)-Dissolved	Thallium (Tl)-Dissolved	Tin (Sn)-Dissolved	Titanium (Ti)-Dissolved	Uranium (U)-Dissolved	Vanadium (V)-Dissolved	Zinc (Zn)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Chedakuz Creek	CC-05	Surface	Primary	VA23B0222-005	5/9/2023	4.58	<0.000010	2.1	0.0423	<0.50	<0.000010	<0.00010	0.00295	0.000088	0.00072	<0.0010
Chedakuz Creek	CC-05	Surface	Primary	VA23A9531-003	5/1/2023	5.47	<0.000010	2.49	0.0552	0.97	<0.000010	<0.00010	0.00678	0.00008	0.00073	<0.0010
Chedakuz Creek	CC-05	Surface	Primary	VA23A2712-004	2/1/2023	7.05	<0.000010	4.14	0.102	1.04	<0.000010	<0.00010	<0.00030	0.000186	<0.00050	<0.0010
Chedakuz Creek	CC-10	Surface	Primary	VA23C6498-005	11/1/2023	3.46	<0.000010	3.38	0.0905	1	<0.000010	<0.00010	<0.00030	0.000082	<0.00050	<0.0010
Chedakuz Creek	CC-10	Surface	Primary	VA23B9219-006	8/16/2023	2.63	<0.000010	3.53	0.0979	1.38	<0.000010	<0.00010	<0.00030	0.000094	<0.00050	<0.0010
Chedakuz Creek	CC-10	Surface	Primary	VA23B0508-006	5/11/2023	4.41	<0.000010	3.1	0.0859	1	<0.000010	<0.00010	<0.00030	0.000089	<0.00050	<0.0010
Chedakuz Creek	CC-10	Surface	Primary	VA23A3177-008	2/8/2023	4.88	<0.000010	3.58	0.097	1.28	<0.000010	<0.00010	<0.00030	0.000088	<0.00050	<0.0010
Chedakuz Creek	CC-15	Surface	Primary	VA23C9626-003	12/6/2023	5.11	<0.000010	3.39	0.0952	1.38	<0.000010	<0.00010	<0.00030	0.000124	<0.00050	<0.0010
Chedakuz Creek	CC-15	Surface	Primary	VA23C6498-004	11/1/2023	4.82	<0.000010	3.57	0.0962	1.08	<0.000010	<0.00010	<0.00030	0.000109	<0.00050	<0.0010
Chedakuz Creek	CC-15	Surface	Primary	VA23C5771-003	10/24/2023	4.69	<0.000010	3.67	0.106	1.11	<0.000010	<0.00010	<0.00030	0.000122	<0.00050	<0.0010
Chedakuz Creek	CC-15	Surface	Primary	VA23C5184-004	10/20/2023	4.7	<0.000010	3.95	0.105	1.24	<0.000010	<0.00010	<0.00030	0.000117	<0.00050	<0.0010
Chedakuz Creek	CC-15	Surface	Primary	VA23C4458-002	10/11/2023	4.36	<0.000010	3.65	0.106	1.01	<0.000010	<0.00010	<0.00030	0.000116	<0.00050	<0.0010
Chedakuz Creek	CC-15	Surface	Primary	VA23C3871-002	10/4/2023	4.55	<0.000010	3.81	0.1	1.26	<0.000010	<0.00010	<0.00030	0.000109	<0.00050	<0.0010
Chedakuz Creek	CC-15	Surface	Primary	VA23C2546-004	9/20/2023	4.03	<0.000010	3.68	0.106	1.2	<0.000010	<0.00010	<0.00030	0.000122	<0.00050	<0.0010
Chedakuz Creek	CC-15	Surface	Primary	VA23B9868-004	8/23/2023	4.06	<0.000010	3.46	0.0985	1.06	<0.000010	<0.00010	<0.00030	0.0001	0.00051	<0.0010
Chedakuz Creek	CC-15	Surface	Primary	VA23B7734-006	7/31/2023	4.32	<0.000010	3.34	0.1	1.7	<0.000010	<0.00010	<0.00030	0.000097	0.00054	<0.0010
Chedakuz Creek	CC-15	Surface	Primary	VA23B2847-002	6/6/2023	4.48	<0.000010	3.16	0.0912	1.04	<0.000010	<0.00010	<0.00030	0.000111	0.0005	<0.0010
Chedakuz Creek	CC-15	Surface	Primary	VA23B2219-005	5/30/2023	5.19	<0.000010	2.99	0.0837	1.07	<0.000010	<0.00010	<0.00030	0.000094	<0.00050	<0.0010
Chedakuz Creek	CC-15	Surface	Primary	VA23B1690-003	5/24/2023	4.74	<0.000010	2.94	0.0789	1.14	<0.000010	<0.00010	0.00033	0.000096	<0.00050	<0.0010
Chedakuz Creek	CC-15	Surface	Primary	VA23B1108-004	5/17/2023	4.5	<0.000010	2.54	0.0718	0.91	<0.000010	<0.00010	0.00069	0.000118	<0.00050	<0.0010
Chedakuz Creek	CC-15	Surface	Primary	VA23B0508-003	5/11/2023	4.68	<0.000010	2.46	0.067	1.07	<0.000010	<0.00010	0.00102	0.000108	<0.00050	<0.0010
Chedakuz Creek	CC-15	Surface	Duplicate	VA23B0508-007	5/11/2023	4.68	<0.000010	2.44	0.0656	1.03	<0.000010	<0.00010	0.00122	0.000106	<0.00050	<0.0010
Chedakuz Creek	CC-15	Surface	Primary	VA23A9782-002	5/3/2023	5.54	<0.000010	2.38	0.0694	1.52	<0.000010	<0.00010	0.00146	0.000105	0.00079	<0.0010
Chedakuz Creek	CC-15	Surface	Primary	VA23A9207-002	4/26/2023	5.03	<0.000010	2.86	0.0872	1.58	<0.000010	<0.00010	0.0004	0.000151	<0.00050	<0.0010
Chedakuz Creek	CC-15	Surface	Primary	VA23A6844-003	3/27/2023	5.2	<0.000010	3.54	0.102	1.47	<0.000010	<0.00010	<0.00030	0.000158	0.00056	<0.0010
Chedakuz Creek	CC-15	Surface	Primary	VA23A2861-001	2/6/2023	5.15	<0.000010	3.71	0.0956	1.43	<0.000010	<0.00010	<0.00030	0.000122	<0.00050	<0.0010
Chedakuz Creek	CC-15	Surface	Primary	VA23A1889-002	1/24/2023	5.55	<0.000010	3.83	0.105	1.28	<0.000010	<0.00010	<0.00030	0.000125	<0.00050	<0.0010
Chedakuz Creek	CC-20	Surface	Primary	VA23C9626-002	12/6/2023	5.25	<0.000010	3.41	0.097	1.32	<0.000010	<0.00010	<0.00030	0.000125	<0.00050	<0.0010
Chedakuz Creek	CC-20	Surface	Primary	VA23C6498-003	11/1/2023	4.98	<0.000010	3.7	0.0984	1.02	<0.000010	<0.00010	<0.00030	0.000109	<0.00050	<0.0010
Chedakuz Creek	CC-20	Surface	Primary	VA23C5771-004	10/24/2023	4.79	<0.000010	3.37	0.11	1.48	<0.000010	<0.00010	<0.00030	0.00012	<0.00050	<0.0010
Chedakuz Creek	CC-20	Surface	Primary	VA23C5184-005	10/20/2023	4.84	<0.000010	3.93	0.105	1.19	<0.000010	<0.00010	<0.00030	0.000122	<0.00050	<0.0010
Chedakuz Creek	CC-20	Surface	Primary	VA23C4458-003	10/11/2023	4.54	<0.000010	3.76	0.108	1.04	<0.000010	<0.00010	<0.00030	0.000119	<0.00050	<0.0010
Chedakuz Creek	CC-20	Surface	Primary	VA23C3871-003	10/4/2023	4.51	<0.000010	3.86	0.1	1.21	<0.000010	<0.00010	<0.00030	0.000114	<0.00050	<0.0010
Chedakuz Creek	CC-20	Surface	Duplicate	VA23C3871-004	10/4/2023	4.59	<0.000010	3.76	0.1	1.16	<0.000010	<0.00010	<0.00030	0.000119	<0.00050	<0.0010
Chedakuz Creek	CC-20	Surface	Primary	VA23C2546-003	9/20/2023	3.9	<0.000010	3.67	0.103	1.16	<0.000010	<0.00010	<0.00030	0.000119	<0.00050	<0.0010
Chedakuz Creek	CC-20	Surface	Primary	VA23B9868-005	8/23/2023	4.27	<0.000010	3.38	0.0996	1.14	<0.000010	<0.00010	<0.00030	0.0001	0.00053	<0.0010
Chedakuz Creek	CC-20	Surface	Primary	VA23B7734-007	7/31/2023	4.42	<0.000010	3.47	0.102	1.6	<0.000010	<0.00010	<0.00030	0.0001	0.00052	<0.0010
Chedakuz Creek	CC-20	Surface	Primary	VA23B4330-006	6/21/2023	4.44	<0.000010	3.28	0.0981	1.07	<0.000010	<0.00010	<0.00030	0.000111	0.00054	<0.0010
Chedakuz Creek	CC-20	Surface	Primary	VA23B2219-002	5/30/2023	5.08	<0.000010	2.93	0.0831	1.17	<0.000010	<0.00010	<0.00030	0.000093	<0.00050	<0.0010
Chedakuz Creek	CC-20	Surface	Duplicate	VA23B2219-003	5/30/2023	5.01	<0.000010	2.9	0.0811	1.02	<0.000010	<0.00010	<0.00030	0.000094	<0.00050	<0.0010
Chedakuz Creek	CC-20	Surface	Primary	VA23B1690-004	5/24/2023	4.7	<0.000010	2.94	0.0789	1.27	<0.000010	<0.00010	0.00033	0.000096	<0.00050	<0.0010
Chedakuz Creek	CC-20	Surface	Primary	VA23B1108-003	5/17/2023	4.45	<0.000010	2.56	0.074	0.91	<0.000010	<0.00010	0.00052	0.000113	<0.00050	<0.0010
Chedakuz Creek	CC-20	Surface	Primary	VA23B0508-004	5/11/2023	4.6	<0.000010	2.47	0.0664	1.07	<0.000010	<0.00010	<0.00120	0.000103	<0.00050	<0.0010
Chedakuz Creek	CC-20	Surface	Primary	VA23A9782-003	5/3/2023	5.43	<0.000010	2.37	0.0725	1.42	<0.000010	<0.00010	0.00155	0.000103	0.00072	<0.0010
Chedakuz Creek	CC-20	Surface	Primary	VA23A9076-002	4/25/2023	5.04	<0.000010	3.16	0.0936	1.32	<0.000010	<0.00010	0.00032	0.000138	<0.00050	<0.0010
Chedakuz Creek	CC-20	Surface	Primary	VA23A6844-002	3/27/2023	5.22	<0.000010	3.55	0.104	1.36	<0.000010	<0.00010	<0.00030	0.000143	<0.00050	<0.0010

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Dissolved Metals *(cont'd)*										
						Silicon (Si)-Dissolved	Silver (Ag)-Dissolved	Sodium (Na)-Dissolved	Strontium (Sr)-Dissolved	Sulfur (S)-Dissolved	Thallium (Tl)-Dissolved	Tin (Sn)-Dissolved	Titanium (Ti)-Dissolved	Uranium (U)-Dissolved	Vanadium (V)-Dissolved	Zinc (Zn)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Chedakuz Creek	CC-20	Surface	Primary	VA23A2861-002	2/6/2023	5.12	<0.000010	3.66	0.0984	1.36	<0.000010	<0.00010	<0.00030	0.000121	<0.00050	<0.0010
Chedakuz Creek	CC-20	Surface	Primary	VA23A1412-002	1/18/2023	5.38	<0.000010	3.63	0.102	1.54	<0.000010	<0.00010	<0.00030	0.000108	<0.00050	<0.0010
Chedakuz Creek	CC-30	Surface	Primary	VA23C6498-002	11/1/2023	5.46	<0.000010	4.53	0.11	0.99	<0.000010	<0.00010	<0.00030	0.00015	<0.00050	<0.0010
Chedakuz Creek	CC-30	Surface	Primary	VA23C0393-002	8/29/2023	4.22	<0.000010	4.26	0.108	1.36	<0.000010	<0.00010	<0.00030	0.000135	0.00054	<0.0010
Chedakuz Creek	CC-30	Surface	Duplicate	VA23C0393-003	8/29/2023	4.23	<0.000010	4.26	0.107	1.36	<0.000010	<0.00010	<0.00030	0.000135	0.00051	<0.0010
Chedakuz Creek	CC-30	Surface	Primary	VA23B0508-001	5/11/2023	4.62	<0.000010	2.42	0.0634	1.05	<0.000010	<0.00010	0.00055	0.000084	<0.00050	<0.0010
Chedakuz Creek	CC-30	Surface	Primary	VA23A3560-001	2/14/2023	5.57	<0.000010	3.93	0.105	1.34	<0.000010	0.0003	<0.00030	0.00018	<0.00050	<0.0010
Chedakuz Creek	CC-40	Surface	Primary	VA23C9626-001	12/6/2023	5.54	<0.000010	4.82	0.114	1.52	<0.000010	<0.00010	<0.00030	0.000221	<0.00050	<0.0010
Chedakuz Creek	CC-40	Surface	Primary	VA23C6498-001	11/1/2023	5.66	<0.000010	5.17	0.112	1.28	<0.000010	<0.00010	<0.00030	0.000202	<0.00050	<0.0010
Chedakuz Creek	CC-40	Surface	Primary	VA23C5771-001	10/24/2023	5.39	<0.000010	4.64	0.119	1.09	<0.000010	<0.00010	<0.00030	0.000194	<0.00050	<0.0010
Chedakuz Creek	CC-40	Surface	Duplicate	VA23C5771-002	10/24/2023	5.56	<0.000010	4.88	0.12	1.33	<0.000010	<0.00010	<0.00030	0.000191	<0.00050	<0.0010
Chedakuz Creek	CC-40	Surface	Primary	VA23C5184-001	10/20/2023	5.2	<0.000010	5.54	0.132	1.38	<0.000010	<0.00010	<0.00030	0.000218	<0.00050	<0.0010
Chedakuz Creek	CC-40	Surface	Primary	VA23C4458-001	10/11/2023	5.03	<0.000010	5.25	0.125	1.39	<0.000010	<0.00010	<0.00030	0.000217	<0.00050	<0.0010
Chedakuz Creek	CC-40	Surface	Primary	VA23C3871-001	10/4/2023	5.08	<0.000010	5.45	0.121	1.37	<0.000010	<0.00010	<0.00030	0.000207	<0.00050	<0.0010
Chedakuz Creek	CC-40	Surface	Primary	VA23C2546-005	9/20/2023	4.29	<0.000010	5.06	0.124	1.34	<0.000010	<0.00010	<0.00030	0.000223	<0.00050	<0.0010
Chedakuz Creek	CC-40	Surface	Primary	VA23C0393-001	8/29/2023	4.46	<0.000010	4.63	0.112	1.38	<0.000010	<0.00010	<0.00030	0.000162	0.00053	<0.0010
Chedakuz Creek	CC-40	Surface	Primary	VA23B7523-007	7/27/2023	4.75	<0.000010	4.06	0.107	1.95	<0.000010	<0.00010	<0.00030	0.000123	0.00054	<0.0010
Chedakuz Creek	CC-40	Surface	Primary	VA23B2847-001	6/6/2023	4.72	<0.000010	3.6	0.0957	0.96	<0.000010	<0.00010	<0.00030	0.000149	0.00057	<0.0010
Chedakuz Creek	CC-40	Surface	Primary	VA23B2219-001	5/30/2023	5.16	<0.000010	3.25	0.0835	1.06	<0.000010	<0.00010	0.00033	0.00012	0.00052	<0.0010
Chedakuz Creek	CC-40	Surface	Primary	VA23B1690-001	5/24/2023	4.99	<0.000010	3.07	0.0768	1.08	<0.000010	<0.00010	<0.00030	0.000102	<0.00050	<0.0010
Chedakuz Creek	CC-40	Surface	Primary	VA23B1108-001	5/17/2023	4.64	<0.000010	2.64	0.068	0.89	<0.000010	<0.00010	0.00045	0.000096	<0.00050	<0.0010
Chedakuz Creek	CC-40	Surface	Duplicate	VA23B1108-002	5/17/2023	4.61	<0.000010	2.6	0.0685	0.9	<0.000010	<0.00010	0.00039	0.000089	<0.00050	<0.0010
Chedakuz Creek	CC-40	Surface	Primary	VA23B0508-002	5/11/2023	4.56	<0.000010	2.41	0.061	0.99	<0.000010	<0.00010	0.00101	0.000078	<0.00050	<0.0010
Chedakuz Creek	CC-40	Surface	Primary	VA23A9782-001	5/3/2023	5.52	<0.000010	2.7	0.072	1.52	<0.000010	<0.00010	0.0017	0.000089	0.00067	<0.0010
Chedakuz Creek	CC-40	Surface	Primary	VA23A9207-001	4/26/2023	4.84	<0.000010	3.52	0.0924	1.42	<0.000010	<0.00010	0.00039	0.000166	<0.00050	<0.0010
Chedakuz Creek	CC-40	Surface	Primary	VA23A6844-001	3/27/2023	5.76	<0.000010	4.47	0.115	1.48	<0.000010	<0.00010	<0.00030	0.000228	<0.00050	<0.0010
Chedakuz Creek	CC-40	Surface	Primary	VA23A3035-001	2/7/2023	5.63	<0.000010	4.6	0.11	1.52	<0.000010	<0.00010	<0.00030	0.000203	<0.00050	<0.0010
Chedakuz Creek	CC-40	Surface	Primary	VA23A1412-001	1/18/2023	5.81	<0.000010	4.58	0.109	1.56	<0.000010	<0.00010	<0.00030	0.000194	<0.00050	<0.0010
Creek 705	705-05	Surface	Primary	VA23C9661-004	12/7/2023	3.32	<0.000010	2.1	0.0604	<0.50	<0.000010	<0.00010	0.00048	0.000135	<0.00050	<0.0010
Creek 705	705-05	Surface	Primary	VA23C7190-010	11/9/2023	3.44	<0.000010	1.91	0.0504	<0.50	<0.000010	<0.00010	0.00121	0.000125	<0.00050	<0.0010
Creek 705	705-05	Surface	Duplicate	VA23C7190-011	11/9/2023	3.48	<0.000010	1.92	0.0511	<0.50	<0.000010	<0.00010	0.00113	0.000123	<0.00050	<0.0010
Creek 705	705-05	Surface	Primary	VA23C4014-006	10/6/2023	3.1	<0.000010	2.1	0.0566	<0.50	<0.000010	<0.00010	0.00042	0.000091	<0.00050	<0.0010
Creek 705	705-05	Surface	Primary	VA23C1674-001	9/12/2023	3.32	<0.000010	2.1	0.0628	<0.50	<0.000010	<0.00010	0.00056	0.000111	<0.00050	<0.0010
Creek 705	705-05	Surface	Primary	VA23B8906-003	8/14/2023	3.66	<0.000010	1.85	0.0538	<0.50	<0.000010	<0.00010	0.00078	0.000162	<0.00050	<0.0010
Creek 705	705-05	Surface	Duplicate	VA23B8906-004	8/14/2023	3.61	<0.000010	1.85	0.0536	<0.50	<0.000010	<0.00010	0.00074	0.000164	<0.00050	<0.0010
Creek 705	705-05	Surface	Primary	VA23B7523-003	7/27/2023	3.87	<0.000010	1.74	0.0526	<0.50	<0.000010	<0.00010	0.00183	0.000226	<0.00050	<0.0010
Creek 705	705-05	Surface	Primary	VA23B3687-004	6/14/2023	3.53	<0.000010	1.79	0.0414	<0.50	<0.000010	<0.00010	0.00079	0.000193	<0.00050	<0.0010
Creek 705	705-05	Surface	Primary	VA23B0364-002	5/10/2023	3.66	<0.000010	1.14	0.0302	<0.50	<0.000010	<0.00010	0.00162	0.000246	<0.00050	<0.0010
Creek 705	705-05	Surface	Primary	VA23A8158-003	4/13/2023	4.52	<0.000010	2.46	0.0587	0.52	<0.000010	<0.00010	0.00223	0.000157	<0.00050	<0.0010
Creek 705	705-05	Surface	Primary	VA23A6844-006	3/28/2023	3.69	<0.000010	2.09	0.0485	<0.50	<0.000010	<0.00010	0.00056	0.000143	<0.00050	<0.0010
Creek 705	705-05	Surface	Primary	VA23A3268-004	2/9/2023	3.07	<0.000010	1.91	0.0455	<0.50	<0.000010	<0.00010	0.00043	0.000145	<0.00050	<0.0010
Creek 705	705-05	Surface	Primary	VA23A1264-002	1/17/2023	3.64	<0.000010	2.13	0.0479	<0.50	<0.000010	<0.00010	0.0007	0.000134	<0.00050	<0.0010
Creek 705	705-10	Surface	Primary	VA23C9661-005	12/7/2023	3.78	<0.000010	2.38	0.063	<0.50	<0.000010	<0.00010	0.00039	0.000116	<0.00050	<0.0010
Creek 705	705-10	Surface	Primary	VA23C6880-001	11/6/2023	3.96	<0.000010	2.2	0.0554	<0.50	<0.000010	<0.00010	0.00151	0.000114	<0.00050	<0.0010
Creek 705	705-10	Surface	Primary	VA23C6383-004	10/31/2023	4.08	<0.000010	2.5	0.0648	<0.50	<0.000010	<0.00010	<0.00030	0.000094	<0.00050	<0.0010
Creek 705	705-10	Surface	Duplicate	VA23C6383-006	10/31/2023	5.34	<0.000010	2.28	0.0532	0.83	<0.000010	<0.00010	<0.00030	0.00007	0.00054	<0.0010

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Dissolved Metals *(cont'd)*										
						Silicon (Si)-Dissolved	Silver (Ag)-Dissolved	Sodium (Na)-Dissolved	Strontium (Sr)-Dissolved	Sulfur (S)-Dissolved	Thallium (Tl)-Dissolved	Tin (Sn)-Dissolved	Titanium (Ti)-Dissolved	Uranium (U)-Dissolved	Vanadium (V)-Dissolved	Zinc (Zn)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Creek 705	705-10	Surface	Primary	VA23C5894-004	10/25/2023	4.06	<0.000010	2.51	0.066	<0.50	<0.000010	<0.00010	<0.00030	0.00009	<0.00050	<0.0010
Creek 705	705-10	Surface	Primary	VA23C4858-004	10/17/2023	3.58	<0.000010	2.44	0.0608	0.51	<0.000010	<0.00010	<0.00030	0.000093	<0.00050	<0.0010
Creek 705	705-10	Surface	Primary	VA23C4586-005	10/14/2023	3.46	<0.000010	2.4	0.0575	<0.50	<0.000010	<0.00010	<0.00030	0.000089	<0.00050	<0.0010
Creek 705	705-10	Surface	Primary	VA23C4014-007	10/6/2023	3.71	<0.000010	2.34	0.06	<0.50	<0.000010	<0.00010	<0.00030	0.000085	<0.00050	<0.0010
Creek 705	705-10	Surface	Primary	VA23C1674-002	9/12/2023	3.97	<0.000010	2.33	0.0592	0.55	<0.000010	<0.00010	<0.00030	0.000098	<0.00050	<0.0010
Creek 705	705-10	Surface	Primary	VA23B8906-002	8/14/2023	4.16	<0.000010	2.02	0.0548	<0.50	<0.000010	<0.00010	0.00063	0.000154	<0.00050	<0.0010
Creek 705	705-10	Surface	Primary	VA23B7523-002	7/27/2023	4.17	<0.000010	1.85	0.0511	<0.50	<0.000010	<0.00010	0.00142	0.000229	<0.00050	<0.0010
Creek 705	705-10	Surface	Primary	VA23B3687-005	6/14/2023	4.29	<0.000010	2	0.0521	<0.50	<0.000010	<0.00010	0.00045	0.000163	<0.00050	<0.0010
Creek 705	705-10	Surface	Primary	VA23B2224-004	5/31/2023	4.26	<0.000010	1.56	0.0412	<0.50	<0.000010	<0.00010	0.00097	0.000203	<0.00050	<0.0010
Creek 705	705-10	Surface	Primary	VA23B1379-005	5/22/2023	3.82	<0.000010	1.52	0.038	<0.50	<0.000010	<0.00010	0.00144	0.000259	<0.00050	<0.0010
Creek 705	705-10	Surface	Primary	VA23B0766-009	5/16/2023	3.7	<0.000010	1.31	0.0316	<0.50	<0.000010	<0.00010	0.00142	0.000252	<0.00050	<0.0010
Creek 705	705-10	Surface	Primary	VA23B0364-003	5/10/2023	4	<0.000010	1.2	0.0332	<0.50	<0.000010	<0.00010	0.00346	0.000261	<0.00050	<0.0010
Creek 705	705-10	Surface	Primary	VA23A9638-001	5/2/2023	4.12	<0.000010	1.38	0.0369	<0.50	<0.000010	<0.00010	0.00774	0.000187	0.00067	0.0022
Creek 705	705-10	Surface	Primary	VA23A8158-001	4/13/2023	4.27	<0.000010	2.35	0.0587	0.63	<0.000010	<0.00010	0.00249	0.000162	<0.00050	<0.0010
Creek 705	705-10	Surface	Duplicate	VA23A8158-002	4/13/2023	4.61	<0.000010	2.44	0.0576	0.56	<0.000010	<0.00010	0.00235	0.000158	<0.00050	<0.0010
Creek 705	705-10	Surface	Primary	VA23A6844-005	3/27/2023	4.32	<0.000010	2.4	0.0575	<0.50	<0.000010	<0.00010	0.00066	0.000125	<0.00050	<0.0010
Creek 705	705-10	Surface	Primary	VA23A3268-005	2/9/2023	3.91	<0.000010	2.25	0.0481	<0.50	<0.000010	<0.00010	0.00076	0.000124	<0.00050	<0.0010
Creek 705	705-10	Surface	Primary	VA23A1264-003	1/17/2023	4.63	<0.000010	2.38	0.0499	<0.50	<0.000010	<0.00010	0.00161	0.000145	<0.00050	<0.0010
Fawnie Creek	FC-01	Surface	Primary	VA23C9661-006	12/7/2023	5.39	<0.000010	2.45	0.0557	1.01	<0.000010	<0.00010	<0.00030	0.000068	<0.00050	<0.0010
Fawnie Creek	FC-01	Surface	Primary	VA23C6880-002	11/6/2023	5.16	<0.000010	2.21	0.0479	0.77	<0.000010	<0.00010	<0.00030	0.000049	<0.00050	<0.0010
Fawnie Creek	FC-01	Surface	Primary	VA23C6383-005	10/31/2023	4.06	<0.000010	2.46	0.0656	<0.50	<0.000010	<0.00010	<0.00030	0.000097	<0.00050	<0.0010
Fawnie Creek	FC-01	Surface	Primary	VA23C5894-005	10/25/2023	5.36	<0.000010	2.39	0.0552	0.79	<0.000010	<0.00010	<0.00030	0.000056	<0.00050	<0.0010
Fawnie Creek	FC-01	Surface	Primary	VA23C4858-005	10/17/2023	5.02	<0.000010	2.39	0.0502	0.77	<0.000010	<0.00010	<0.00030	0.000049	0.00054	<0.0010
Fawnie Creek	FC-01	Surface	Duplicate	VA23C4858-006	10/17/2023	5.17	<0.000010	2.4	0.0503	0.86	<0.000010	<0.00010	<0.00030	0.000048	0.00052	<0.0010
Fawnie Creek	FC-01	Surface	Primary	VA23C4586-006	10/14/2023	5.02	<0.000010	2.41	0.0507	0.8	<0.000010	<0.00010	<0.00030	0.000052	<0.00050	<0.0010
Fawnie Creek	FC-01	Surface	Primary	VA23C4014-008	10/6/2023	5.37	<0.000010	2.26	0.0512	0.68	<0.000010	<0.00010	<0.00030	0.000044	<0.00050	<0.0010
Fawnie Creek	FC-01	Surface	Primary	VA23C0875-004	9/4/2023	5.48	<0.000010	2.37	0.0511	0.64	<0.000010	<0.00010	<0.00030	0.000044	0.00056	<0.0010
Fawnie Creek	FC-01	Surface	Primary	VA23B8906-001	8/14/2023	5.34	<0.000010	1.9	0.0449	0.74	<0.000010	<0.00010	<0.00030	0.000036	0.00062	<0.0010
Fawnie Creek	FC-01	Surface	Primary	VA23B7523-001	7/27/2023	4.73	<0.000010	1.72	0.0415	<0.50	<0.000010	<0.00010	<0.00030	0.000037	0.0006	<0.0010
Fawnie Creek	FC-01	Surface	Primary	VA23B4330-001	6/21/2023	4.38	<0.000010	1.38	0.0324	<0.50	<0.000010	<0.00010	0.00033	0.000037	<0.00050	<0.0010
Fawnie Creek	FC-01	Surface	Primary	VA23B2224-003	5/31/2023	4.35	<0.000010	1.13	0.025	<0.50	<0.000010	<0.00010	<0.00030	0.000033	<0.00050	<0.0010
Fawnie Creek	FC-01	Surface	Primary	VA23B1379-006	5/22/2023	3.58	<0.000010	0.977	0.0228	<0.50	<0.000010	<0.00010	0.00037	0.000038	<0.00050	0.0014
Fawnie Creek	FC-01	Surface	Primary	VA23B0766-006	5/15/2023	2.95	<0.000010	0.793	0.0164	<0.50	<0.000010	<0.00010	0.00074	0.000032	<0.00050	0.0031
Fawnie Creek	FC-01	Surface	Primary	VA23B0364-004	5/10/2023	3.64	<0.000010	0.903	0.0219	<0.50	<0.000010	<0.00010	0.00103	0.000038	<0.00050	0.0019
Fawnie Creek	FC-01	Surface	Primary	VA23A9638-002	5/2/2023	4.93	<0.000010	1.92	0.0498	0.84	<0.000010	<0.00010	0.00178	0.000063	0.00063	<0.0010
Fawnie Creek	FC-01	Surface	Primary	VA23A8158-005	4/13/2023	5.44	<0.000010	2.98	0.0598	1.02	<0.000010	<0.00010	<0.00030	0.000123	0.0005	<0.0010
Fawnie Creek	FC-01	Surface	Primary	VA23A6844-004	3/27/2023	5.42	<0.000010	2.84	0.0628	0.88	<0.000010	<0.00010	<0.00030	0.000112	0.00052	<0.0010
Fawnie Creek	FC-01	Surface	Primary	VA23A3268-006	2/9/2023	5.25	<0.000010	2.73	0.0543	0.91	<0.000010	<0.00010	<0.00030	0.000096	<0.00050	<0.0010
Fawnie Creek	FC-01	Surface	Duplicate	VA23A3268-007	2/9/2023	5.3	<0.000010	2.58	0.0548	0.77	<0.000010	<0.00010	<0.00030	0.000093	<0.00050	<0.0010
Fawnie Creek	FC-01	Surface	Primary	VA23A1264-001	1/17/2023	5.35	<0.000010	2.71	0.0582	0.71	<0.000010	<0.00010	<0.00030	0.000092	<0.00050	<0.0010
Field Blank	-	-	-	VA23C9661-007	12/7/2023	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0010
Field Blank	-	-	-	VA23C6498-007	11/1/2023	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0010
Field Blank	-	-	-	VA23C5771-006	10/24/2023	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0010
Field Blank	-	-	-	VA23C5184-006	10/20/2023	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0010
Field Blank	-	-	-	VA23C4458-005	10/11/2023	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0010
Field Blank	-	-	-	VA23C3871-005	10/4/2023	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0010

Notes:

"-" indicates parameter was not analyzed.

"<" indicates value was below the detection limit.

Appendix A-3: Stream and Lake Water Quality Laboratory Results for CFMP Sites, 2023

Watershed or Lake	Site	Depth	QAQC	Laboratory ID	Date	Dissolved Metals *(cont'd)*										
						Silicon (Si)-Dissolved	Silver (Ag)-Dissolved	Sodium (Na)-Dissolved	Strontium (Sr)-Dissolved	Sulfur (S)-Dissolved	Thallium (Tl)-Dissolved	Tin (Sn)-Dissolved	Titanium (Ti)-Dissolved	Uranium (U)-Dissolved	Vanadium (V)-Dissolved	Zinc (Zn)-Dissolved
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Field Blank	-	-	-	VA23C1854-004	9/13/2023	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0010
Field Blank	-	-	-	VA23B8906-009	8/15/2023	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0010
Field Blank	-	-	-	VA23B7293-002	7/25/2023	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0010
Field Blank	-	-	-	VA23B4330-008	6/21/2023	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0010
Field Blank	-	-	-	VA23B2219-006	5/30/2023	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0010
Field Blank	-	-	-	VA23B1379-003	5/22/2023	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0010
Field Blank	-	-	-	VA23B1108-006	5/17/2023	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0010
Field Blank	-	-	-	VA23B0222-007	5/9/2023	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0010
Field Blank	-	-	-	VA23A9893-005	5/4/2023	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0010
Field Blank	-	-	-	VA23A7852-006	4/11/2023	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0010
Field Blank	-	-	-	VA23A6097-006	3/20/2023	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0010
Field Blank	-	-	-	VA23A3035-002	2/7/2023	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0010
Field Blank	-	-	-	VA23A1261-004	1/17/2023	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.000010	<0.00010	<0.00030	<0.000010	<0.00050	<0.0010
Travel Blank	-	-	-	VA23D0165-001	12/14/2023	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C7190-012	11/9/2023	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C5894-006	10/25/2023	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C5184-007	10/20/2023	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C5293-008	10/19/2023	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C4586-007	10/14/2023	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C4014-012	10/6/2023	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C2546-006	9/20/2023	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23C0762-005	8/31/2023	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23B7734-008	7/31/2023	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23B4330-009	6/21/2023	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23B2224-005	5/31/2023	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23B1690-012	5/24/2023	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23B1108-007	5/17/2023	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23A9893-006	5/4/2023	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23A9322-002	4/28/2023	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23A6844-009	3/28/2023	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23A4552-003	2/28/2023	-	-	-	-	-	-	-	-	-	-	-
Travel Blank	-	-	-	VA23A1890-005	1/25/2023	-	-	-	-	-	-	-	-	-	-	-

Notes:
"-" indicates parameter was not analyzed.
"<" indicates value was below the detection limit.

Appendix A.4 Fish Tissues Quality Results, 2023

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C2929**	Page	: 1 of 101
Client	: **Palmer Environmental Consulting Group Inc.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Accounts Payable	Account Manager	: Amber Springer
Address	: 470 Granville Street Suite 630 Vancouver BC Canada V6C 1V5	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: 604 629 9075	Telephone	: +1 604 253 4188
Project	: 2006506	Date Samples Received	: 26-Sep-2023 11:50
PO	: 15180	Date Analysis Commenced	: 08-Nov-2023
C-O-C number	: ----	Issue Date	: 24-Nov-2023 09:38
Sampler	: Marissa Heppner		
Site	: ----		
Quote number	: VA23-BWGL100-002		
No. of samples received	: 113		
No. of samples analysed	: 104		

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*
Arshdeep Kaur	Lab Assistant	Metals, Burnaby, British Columbia
Owen Cheng		Metals, Burnaby, British Columbia
Ragini Saini	Lab Assistant	Metals, Burnaby, British Columbia
Robin Weeks	Team Leader - Metals	Metals, Burnaby, British Columbia
Sam Silveira	Lab Assistant	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*
%	percent
mg/kg	milligrams per kilogram
mg/kg wwt	milligrams per kilogram wet weight

<: 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: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-9/DC-5_ef_20230822_RB_1	DC-9/DC-5_ef_20230822_RB_2	DC-9/DC-5_ef_20230822_RB_3	DC-9/DC-5_ef_20230822_RB_4	DC-9/DC-5_ef_20230822_RB_5
					Client sampling date / time	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C2929-001	VA23C2929-002	VA23C2929-003	VA23C2929-004	VA23C2929-005
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		71.6	74.8	----	72.7	----
Moisture	----	E144-H/VA	2.0	%		----	----	73.5	----	73.0
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		34.0	11.8	----	30.5	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	87.5	----	224
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		9.67	2.96	----	8.33	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	23.2	----	60.4
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	0.011	----	0.014
Antimony	7440-36-0	E440/VA	0.010	mg/kg		0.011	<0.010	----	<0.010	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	0.0029	----	0.0038
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		0.0031	<0.0020	----	<0.0020	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.248	0.238	----	0.211	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	0.299	----	0.327
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0704	0.0600	----	0.0576	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	0.0792	----	0.0882
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	2.34	----	4.57
Barium	7440-39-3	E440/VA	0.050	mg/kg		3.48	2.09	----	1.90	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	0.621	----	1.23
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		0.989	0.526	----	0.518	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	<0.010	----	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	0.0026
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	<0.010	----	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	<0.0020
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	<1.0	----	<1.0
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	<1.0	----	<1.0	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-9/DC-5_ef_20230822_RB_1	DC-9/DC-5_ef_20230822_RB_2	DC-9/DC-5_ef_20230822_RB_3	DC-9/DC-5_ef_20230822_RB_4	DC-9/DC-5_ef_20230822_RB_5
					Client sampling date / time	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C2929-001	VA23C2929-002	VA23C2929-003	VA23C2929-004	VA23C2929-005
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	<0.20	----	<0.20
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	<0.20	----	<0.20	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.115	0.0730	----	0.0643	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	0.110	----	0.088
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0328	0.0184	----	0.0176	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	0.0292	----	0.0236
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	17200	----	17700
Calcium	7440-70-2	E440/VA	20	mg/kg		21700	20200	----	18600	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	4570	----	4760
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		6170	5080	----	5060	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	0.115	----	0.183
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0917	0.0885	----	0.101	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	0.0304	----	0.0494
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0261	0.0223	----	0.0276	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.170	0.184	----	0.166	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	0.32	----	0.84
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.048	0.046	----	0.045	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	0.084	----	0.227
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	0.129	----	0.125
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.076	0.071	----	0.072	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	0.0342	----	0.0336
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0217	0.0179	----	0.0198	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		3.58	3.02	----	4.02	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	3.46	----	3.00
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		1.02	0.758	----	1.10	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	0.916	----	0.808
Iron	7439-89-6	E440/VA	3.0	mg/kg		84.8	55.9	----	83.5	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	149	----	383
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		24.1	14.1	----	22.8	----
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	39.4	----	103

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-9/DC-5_ef_20230822_RB_1	DC-9/DC-5_ef_20230822_RB_2	DC-9/DC-5_ef_20230822_RB_3	DC-9/DC-5_ef_20230822_RB_4	DC-9/DC-5_ef_20230822_RB_5
					Client sampling date / time	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C2929-001	VA23C2929-002	VA23C2929-003	VA23C2929-004	VA23C2929-005
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.136	0.178	----	0.073	----
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	0.185	----	0.207
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0388	0.0449	----	0.0200	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	0.049	----	0.056
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	<0.50	----	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	----	<0.50	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	<0.10	----	<0.10
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	----	<0.10	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	1140	----	1200
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1510	1290	----	1230	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	302	----	324
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		431	324	----	335	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	17.6	----	17.0
Manganese	7439-96-5	E440/VA	0.050	mg/kg		16.5	9.38	----	13.2	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	4.67	----	4.59
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		4.69	2.36	----	3.59	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	0.274	----	0.304
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.390	0.246	----	0.296	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	0.0726	----	0.0821
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.111	0.0620	----	0.0808	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.085	0.063	----	0.142	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	0.133	----	0.186
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0242	0.0158	----	0.0386	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	0.0352	----	0.0501
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	<0.20	----	0.40
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	----	<0.20	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	0.107
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	<0.040	----
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	18400	----	19500
Phosphorus	7723-14-0	E440/VA	10	mg/kg		21700	19700	----	18500	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: DC-9/DC-5_ef_20230822_RB_1	DC-9/DC-5_ef_20230822_RB_2	DC-9/DC-5_ef_20230822_RB_3	DC-9/DC-5_ef_20230822_RB_4	DC-9/DC-5_ef_20230822_RB_5
Client sampling date / time					23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00
					VA23C2929-001	VA23C2929-002	VA23C2929-003	VA23C2929-004	VA23C2929-005
					Result	Result	Result	Result	Result
Metals									
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt	----	----	4880	----	5240
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt	6170	4950	----	5060	----
Potassium	7440-09-7	E472/VA	20	mg/kg	----	----	12400	----	12400
Potassium	7440-09-7	E440/VA	20	mg/kg	11800	12200	----	12000	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt	----	----	3290	----	3350
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt	3360	3060	----	3270	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg	----	----	12.3	----	12.1
Rubidium	7440-17-7	E440/VA	0.050	mg/kg	11.4	10.4	----	14.2	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt	----	----	3.25	----	3.25
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt	3.24	2.62	----	3.88	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg	2.48	2.19	----	2.64	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg	----	----	3.29	----	2.18
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt	0.706	0.550	----	0.722	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt	----	----	0.873	----	0.587
Sodium	7440-23-5	E472/VA	20	mg/kg	----	----	3080	----	3230
Sodium	7440-23-5	E440/VA	20	mg/kg	3040	3130	----	3020	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt	----	----	816	----	870
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt	864	787	----	823	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg	29.6	27.6	----	22.4	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg	----	----	20.7	----	23.9
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt	8.41	6.94	----	6.10	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt	----	----	5.48	----	6.43
Tellurium	13494-80-9	E472/VA	0.020	mg/kg	----	----	<0.020	----	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg	<0.020	<0.020	----	<0.020	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt	----	----	<0.0040	----	<0.0040
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt	<0.0040	<0.0040	----	<0.0040	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg	----	----	0.0184	----	0.0190
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.0172	0.0144	----	0.0189	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt	----	----	0.00489	----	0.00513
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt	0.00489	0.00363	----	0.00515	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-9/DC-5_ef_20230822_RB_1	DC-9/DC-5_ef_20230822_RB_2	DC-9/DC-5_ef_20230822_RB_3	DC-9/DC-5_ef_20230822_RB_4	DC-9/DC-5_ef_20230822_RB_5
					Client sampling date / time	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C2929-001	VA23C2929-002	VA23C2929-003	VA23C2929-004	VA23C2929-005
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	0.47	----	0.62
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.41	1.02	----	0.45	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	0.125	----	0.168
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.118	0.258	----	0.122	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	0.0283	----	0.0960
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0244	0.0124	----	0.0286	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	0.00749	----	0.0259
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.00693	0.00313	----	0.00780	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	0.18	----	0.60
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		0.14	<0.10	----	0.10	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	0.047	----	0.161
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.039	<0.020	----	0.028	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		139	90.5	----	80.6	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	122	----	111
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		39.6	22.8	----	22.0	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	32.3	----	29.8
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	<0.20	----	0.25
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	----	<0.20	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	0.068
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	<0.040	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-9/DC-5_ef_20230822_RB_6	DC-9/DC-5_ef_20230822_RB_7	DC-9/DC-5_ef_20230822_RB_12	DC-5/DC-15_ef_20230824_RB_1	DC-5/DC-15_ef_20230824_RB_2
					Client sampling date / time	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C2929-006	VA23C2929-007	VA23C2929-008	VA23C2929-009	VA23C2929-010
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		----	----	69.5	78.4	73.9
Moisture	----	E144-H/VA	2.0	%		74.4	73.9	----	----	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		----	----	30.5	4.3	13.7
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		19.5	11.9	----	----	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		----	----	9.30	0.94	3.57
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		5.0	3.1	----	----	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		<0.010	<0.010	----	----	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		----	----	<0.010	<0.010	<0.010
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		0.0020	<0.0020	----	----	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		----	----	<0.0020	<0.0020	0.0021
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		----	----	0.142	0.172	0.168
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		0.158	0.416	----	----	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		----	----	0.0433	0.0372	0.0440
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		0.0405	0.108	----	----	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		2.54	1.59	----	----	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		----	----	2.11	1.67	1.86
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		0.651	0.415	----	----	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		----	----	0.643	0.360	0.485
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		<0.010	<0.010	----	----	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		----	----	<0.010	<0.010	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	----	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		----	----	<0.0020	<0.0020	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		<0.010	<0.010	----	----	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		----	----	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	----	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		----	----	<0.0020	<0.0020	<0.0020
Boron	7440-42-8	E472/VA	1.0	mg/kg		<1.0	<1.0	----	----	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		----	----	<1.0	<1.0	<1.0

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-9/DC-5_ef_20230822_RB_6	DC-9/DC-5_ef_20230822_RB_7	DC-9/DC-5_ef_20230822_RB_12	DC-5/DC-15_ef_20230824_RB_1	DC-5/DC-15_ef_20230824_RB_2
					Client sampling date / time	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C2929-006	VA23C2929-007	VA23C2929-008	VA23C2929-009	VA23C2929-010
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		<0.20	<0.20	----	----	----
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		----	----	<0.20	<0.20	<0.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		----	----	0.0538	0.109	0.0722
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		0.060	0.187	----	----	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		----	----	0.0164	0.0235	0.0188
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		0.0153	0.0489	----	----	----
Calcium	7440-70-2	E472/VA	20	mg/kg		31600	22400	----	----	----
Calcium	7440-70-2	E440/VA	20	mg/kg		----	----	14700	28800	24200
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		8110	5860	----	----	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		----	----	4480	6230	6320
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		0.202	0.0946	----	----	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		----	----	0.117	0.0881	0.134
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		0.0519	0.0247	----	----	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		----	----	0.0356	0.0190	0.0349
Chromium	7440-47-3	E440/VA	0.050	mg/kg		----	----	0.104	0.252	0.143
Chromium	7440-47-3	E472/VA	0.20	mg/kg		0.91	0.52	----	----	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		----	----	0.032	0.054	0.037
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		0.233	0.137	----	----	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		0.057	0.161	----	----	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		----	----	0.042	0.122	0.084
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		0.0146	0.0421	----	----	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		----	----	0.0129	0.0263	0.0221
Copper	7440-50-8	E440/VA	0.10	mg/kg		----	----	2.92	5.66	3.56
Copper	7440-50-8	E472/VA	0.20	mg/kg		2.53	4.55	----	----	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		----	----	0.890	1.22	0.930
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		0.649	1.19	----	----	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		----	----	67.6	63.5	55.3
Iron	7439-89-6	E472/VA	5.0	mg/kg		71.4	69.4	----	----	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		----	----	20.6	13.7	14.4

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-9/DC-5_ef_20230822_RB_6	DC-9/DC-5_ef_20230822_RB_7	DC-9/DC-5_ef_20230822_RB_12	DC-5/DC-15_ef_20230824_RB_1	DC-5/DC-15_ef_20230824_RB_2
					Client sampling date / time	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C2929-006	VA23C2929-007	VA23C2929-008	VA23C2929-009	VA23C2929-010
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		18.3	18.1	----	----	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		----	----	0.031	0.025	0.032
Lead	7439-92-1	E472/VA	0.050	mg/kg		0.453	0.086	----	----	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		----	----	0.0095	0.0055	0.0083
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		0.116	0.022	----	----	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		<0.50	<0.50	----	----	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		----	----	<0.50	<0.50	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		<0.10	<0.10	----	----	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		----	----	<0.10	<0.10	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		1440	1180	----	----	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		----	----	984	1480	1300
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		370	310	----	----	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		----	----	300	320	339
Manganese	7439-96-5	E472/VA	0.050	mg/kg		20.8	15.7	----	----	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		----	----	8.88	14.5	12.3
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		5.34	4.10	----	----	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		----	----	2.70	3.12	3.20
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		0.476	0.304	----	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		----	----	0.216	0.660	0.388
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		0.122	0.0795	----	----	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		----	----	0.0658	0.142	0.101
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		----	----	0.120	0.061	0.058
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		0.117	0.096	----	----	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		----	----	0.0365	0.0132	0.0153
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		0.0300	0.0252	----	----	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		<0.20	<0.20	----	----	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		----	----	<0.20	<0.20	<0.20
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		<0.040	0.052	----	----	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		----	----	<0.040	<0.040	<0.040

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-9/DC-5_ef_20230822_RB_6	DC-9/DC-5_ef_20230822_RB_7	DC-9/DC-5_ef_20230822_RB_12	DC-5/DC-15_ef_20230824_RB_1	DC-5/DC-15_ef_20230824_RB_2
					Client sampling date / time	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C2929-006	VA23C2929-007	VA23C2929-008	VA23C2929-009	VA23C2929-010
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		27600	18900	----	----	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		----	----	15000	28000	23100
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		7070	4940	----	----	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		----	----	4580	6060	6020
Potassium	7440-09-7	E472/VA	20	mg/kg		13400	10800	----	----	----
Potassium	7440-09-7	E440/VA	20	mg/kg		----	----	10100	15700	12400
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		3450	2820	----	----	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		----	----	3070	3400	3230
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		11.8	13.0	----	----	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		----	----	10.5	15.8	9.96
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		3.02	3.39	----	----	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		----	----	3.19	3.42	2.60
Selenium	7782-49-2	E440/VA	0.050	mg/kg		----	----	1.76	2.99	2.01
Selenium	7782-49-2	E472/VA	0.10	mg/kg		2.03	3.18	----	----	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		----	----	0.537	0.647	0.525
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		0.520	0.830	----	----	----
Sodium	7440-23-5	E472/VA	20	mg/kg		3570	2520	----	----	----
Sodium	7440-23-5	E440/VA	20	mg/kg		----	----	2580	4740	3320
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		914	659	----	----	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		----	----	787	1020	868
Strontium	7440-24-6	E440/VA	0.050	mg/kg		----	----	19.6	34.2	28.5
Strontium	7440-24-6	E472/VA	0.10	mg/kg		37.2	28.8	----	----	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		----	----	5.97	7.38	7.44
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		9.52	7.52	----	----	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		<0.020	<0.020	----	----	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		----	----	<0.020	<0.020	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	----	----	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		----	----	<0.0040	<0.0040	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		0.0180	0.0170	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-9/DC-5_ef_20230822_RB_6	DC-9/DC-5_ef_20230822_RB_7	DC-9/DC-5_ef_20230822_RB_12	DC-5/DC-15_ef_20230824_RB_1	DC-5/DC-15_ef_20230824_RB_2
					Client sampling date / time	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C2929-006	VA23C2929-007	VA23C2929-008	VA23C2929-009	VA23C2929-010
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		----	----	0.0118	0.0231	0.0174
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		0.00462	0.00444	----	----	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		----	----	0.00358	0.00499	0.00453
Tin	7440-31-5	E472/VA	0.10	mg/kg		0.30	0.75	----	----	----
Tin	7440-31-5	E440/VA	0.10	mg/kg		----	----	0.39	0.68	0.43
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		0.076	0.196	----	----	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		----	----	0.120	0.146	0.113
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		0.0210	0.0153	----	----	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		----	----	0.0204	0.0136	0.0119
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		0.00537	0.00400	----	----	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		----	----	0.00621	0.00295	0.00311
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		<0.10	0.11	----	----	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		----	----	<0.10	<0.10	0.11
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		0.024	0.030	----	----	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		----	----	0.028	<0.020	0.028
Zinc	7440-66-6	E440/VA	0.50	mg/kg		----	----	84.5	103	107
Zinc	7440-66-6	E472/VA	1.0	mg/kg		86.8	102	----	----	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		----	----	25.7	22.3	27.8
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		22.2	26.7	----	----	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		<0.20	<0.20	----	----	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		----	----	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	----	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		----	----	<0.040	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-5/DC-15_ef_20230824_RB_3	DC-5/DC-15_ef_20230824_RB_4	DC-5/DC-15_ef_20230824_RB_5	DC-5/DC-15_ef_20230824_RB_6	DC-5/DC-15_ef_20230824_RB_7
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C2929-011	VA23C2929-012	VA23C2929-013	VA23C2929-014	VA23C2929-015
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		74.9	72.0	74.4	71.5	74.3
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		56.9	23.7	18.9	9.1	36.1
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		14.3	6.65	4.84	2.58	9.28
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	0.011	<0.010	<0.010
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	0.0022	0.0028	<0.0020	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.291	0.245	0.238	0.242	0.173
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0731	0.0687	0.0610	0.0691	0.0445
Barium	7440-39-3	E440/VA	0.050	mg/kg		2.12	1.77	2.53	2.18	1.89
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		0.532	0.497	0.649	0.622	0.486
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	<1.0	<1.0	<1.0	<1.0
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.111	0.102	0.0871	0.119	0.0912
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0279	0.0286	0.0223	0.0341	0.0234
Calcium	7440-70-2	E440/VA	20	mg/kg		23200	23900	35400	28200	20500
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		5840	6700	9070	8040	5280
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0682	0.0521	0.192	0.661	0.0863
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0171	0.0146	0.0491	0.188	0.0222
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.157	0.149	0.182	0.090	0.219
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.039	0.042	0.047	0.026	0.056
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.137	0.116	0.061	0.121	0.075
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0344	0.0326	0.0156	0.0345	0.0194
Copper	7440-50-8	E440/VA	0.10	mg/kg		3.35	3.46	3.08	3.64	3.70
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.843	0.968	0.790	1.04	0.951
Iron	7439-89-6	E440/VA	3.0	mg/kg		115	77.6	77.6	53.7	77.6

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-5/DC-15_ef_20230824_RB_3	DC-5/DC-15_ef_20230824_RB_4	DC-5/DC-15_ef_20230824_RB_5	DC-5/DC-15_ef_20230824_RB_6	DC-5/DC-15_ef_20230824_RB_7
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C2929-011	VA23C2929-012	VA23C2929-013	VA23C2929-014	VA23C2929-015
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		29.0	21.8	19.9	15.3	20.0
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.055	0.051	0.038	0.047	0.035
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0138	0.0143	0.0097	0.0135	0.0089
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1310	1080	1660	1560	1260
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		329	304	424	445	325
Manganese	7439-96-5	E440/VA	0.050	mg/kg		19.4	17.1	17.8	16.0	15.0
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		4.87	4.80	4.57	4.56	3.86
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.376	0.407	0.344	0.424	0.378
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0945	0.114	0.0881	0.121	0.0972
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.082	0.067	0.078	0.042	0.074
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0207	0.0189	0.0199	0.0119	0.0190
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	<0.040	<0.040
Phosphorus	7723-14-0	E440/VA	10	mg/kg		22500	18600	32900	26400	20800
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		5650	5230	8430	7540	5340
Potassium	7440-09-7	E440/VA	20	mg/kg		12300	10300	14700	12400	12300
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3080	2880	3780	3550	3170
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		11.2	10.6	11.8	18.7	11.7
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		2.82	2.98	3.02	5.33	3.00
Selenium	7782-49-2	E440/VA	0.050	mg/kg		2.30	2.86	2.21	1.58	1.92
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.577	0.802	0.568	0.449	0.493
Sodium	7440-23-5	E440/VA	20	mg/kg		3490	2760	3750	2950	3130
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		876	774	962	842	804
Strontium	7440-24-6	E440/VA	0.050	mg/kg		26.6	27.4	41.8	33.5	22.5
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		6.67	7.68	10.7	9.56	5.80
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	<0.020
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	<0.0040	<0.0040

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: DC-5/DC-15_ef_20230824_RB_3	DC-5/DC-15_ef_20230824_RB_4	DC-5/DC-15_ef_20230824_RB_5	DC-5/DC-15_ef_20230824_RB_6	DC-5/DC-15_ef_20230824_RB_7
Client sampling date / time					24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
					VA23C2929-011	VA23C2929-012	VA23C2929-013	VA23C2929-014	VA23C2929-015
					Result	Result	Result	Result	Result
Metals									
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.0170	0.0242	0.0264	0.0434	0.0173
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt	0.00427	0.00677	0.00676	0.0124	0.00446
Tin	7440-31-5	E440/VA	0.10	mg/kg	0.84	0.88	0.68	0.31	0.43
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt	0.211	0.247	0.175	0.090	0.110
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	0.0183	0.0151	0.0212	0.0155	0.0166
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt	0.00459	0.00422	0.00545	0.00442	0.00428
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	0.23	0.10	<0.10	<0.10	0.13
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt	0.057	0.028	0.022	<0.020	0.034
Zinc	7440-66-6	E440/VA	0.50	mg/kg	111	92.6	157	114	90.7
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt	27.8	26.0	40.2	32.4	23.3
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-5/DC-15_ef_20230824_RB_8	TL-01_an_20230909_RB_1 liver *	TL-01_an_20230909_RB_1 muscle *	TL-01_an_20230909_RB_1 carcass *	TL-01_gn_20230909_RB_1 liver *
					Client sampling date / time	24-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-016	VA23C2929-017	VA23C2929-018	VA23C2929-019	VA23C2929-020
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		----	----	76.3	72.8	----
Moisture	----	E144-H/VA	2.0	%		72.2	73.9	----	----	75.7
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		----	----	<2.0	4.5	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		44.5	<5.0	----	----	<5.0
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		----	----	<0.40	1.23	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		12.3	<1.0	----	----	<1.0
Antimony	7440-36-0	E472/VA	0.010	mg/kg		<0.010	<0.010	----	----	<0.010
Antimony	7440-36-0	E440/VA	0.010	mg/kg		----	----	<0.010	<0.010	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	----	<0.0020
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		----	----	<0.0020	<0.0020	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		----	----	0.028	0.051	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		0.362	0.122	----	----	0.273
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		----	----	0.0066	0.0138	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		0.100	0.0318	----	----	0.0664
Barium	7440-39-3	E472/VA	0.050	mg/kg		2.36	1.80	----	----	0.582
Barium	7440-39-3	E440/VA	0.050	mg/kg		----	----	0.370	0.661	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		0.654	0.470	----	----	0.141
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		----	----	0.088	0.180	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		<0.010	<0.010	----	----	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		----	----	<0.010	<0.010	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	----	<0.0020
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		----	----	<0.0020	<0.0020	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		<0.010	<0.010	----	----	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		----	----	<0.010	<0.010	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	----	<0.0020
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		----	----	<0.0020	<0.0020	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		<1.0	1.7	----	----	<1.0
Boron	7440-42-8	E440/VA	1.0	mg/kg		----	----	<1.0	<1.0	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-5/DC-15_ef_20230824_RB_8	TL-01_an_20230909_RB_1 liver *	TL-01_an_20230909_RB_1 muscle *	TL-01_an_20230909_RB_1 carcass *	TL-01_gn_20230909_RB_1 liver *
					Client sampling date / time	24-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-016	VA23C2929-017	VA23C2929-018	VA23C2929-019	VA23C2929-020
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		<0.20	0.44	----	----	<0.20
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		----	----	<0.20	<0.20	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		----	----	<0.0050	0.0223	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		0.179	0.200	----	----	0.054
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		----	----	<0.0010	0.0060	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		0.0496	0.0521	----	----	0.0131
Calcium	7440-70-2	E472/VA	20	mg/kg		17300	770	----	----	507
Calcium	7440-70-2	E440/VA	20	mg/kg		----	----	820	14200	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		4800	201	----	----	123
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		----	----	194	3860	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		0.0615	0.0175	----	----	0.0070
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		----	----	0.0197	0.0162	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		0.0171	0.0046	----	----	0.0017
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		----	----	0.0047	0.0044	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		----	----	0.062	<0.050	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		0.22	0.31	----	----	<0.20
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		----	----	0.014	0.013	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		0.061	0.082	----	----	<0.040
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		0.170	0.038	----	----	0.066
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		----	----	<0.020	<0.020	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		0.0473	0.0098	----	----	0.0160
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		----	----	<0.0040	<0.0040	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		----	----	1.12	1.77	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		3.56	172	----	----	101
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		----	----	0.265	0.480	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		0.989	45.0	----	----	24.5
Iron	7439-89-6	E440/VA	3.0	mg/kg		----	----	11.9	47.7	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		112	780	----	----	1460
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		----	----	2.82	13.0	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-5/DC-15_ef_20230824_RB_8	TL-01_an_20230909_RB_1 liver *	TL-01_an_20230909_RB_1 muscle *	TL-01_an_20230909_RB_1 carcass *	TL-01_gn_20230909_RB_1 liver *
					Client sampling date / time	24-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-016	VA23C2929-017	VA23C2929-018	VA23C2929-019	VA23C2929-020
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		31.0	204	----	----	354
Lead	7439-92-1	E440/VA	0.020	mg/kg		----	----	<0.020	<0.020	----
Lead	7439-92-1	E472/VA	0.050	mg/kg		<0.050	<0.050	----	----	<0.050
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		----	----	<0.0040	<0.0040	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		0.013	<0.010	----	----	<0.010
Lithium	7439-93-2	E472/VA	0.50	mg/kg		<0.50	<0.50	----	----	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg		----	----	<0.50	<0.50	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		<0.10	<0.10	----	----	<0.10
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		----	----	<0.10	<0.10	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		1190	1310	----	----	944
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		----	----	1080	1090	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		329	342	----	----	229
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		----	----	256	297	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		23.0	8.28	----	----	5.25
Manganese	7439-96-5	E440/VA	0.050	mg/kg		----	----	0.435	8.95	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		6.40	2.16	----	----	1.27
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		----	----	0.103	2.43	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		0.445	0.246	----	----	0.933
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		----	----	0.213	0.156	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		0.124	0.0644	----	----	0.226
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		----	----	0.0504	0.0425	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		----	----	<0.020	0.035	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		0.100	0.823	----	----	0.882
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		----	----	<0.0040	0.0095	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		0.0277	0.215	----	----	0.214
Nickel	7440-02-0	E472/VA	0.20	mg/kg		<0.20	0.30	----	----	0.25
Nickel	7440-02-0	E440/VA	0.20	mg/kg		----	----	<0.20	<0.20	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		<0.040	0.078	----	----	0.061
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		----	----	<0.040	<0.040	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-5/DC-15_ef_20230824_RB_8	TL-01_an_20230909_RB_1 liver *	TL-01_an_20230909_RB_1 muscle *	TL-01_an_20230909_RB_1 carcass *	TL-01_gn_20230909_RB_1 liver *
					Client sampling date / time	24-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-016	VA23C2929-017	VA23C2929-018	VA23C2929-019	VA23C2929-020
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		19200	17200	----	----	17500
Phosphorus	7723-14-0	E440/VA	10	mg/kg		----	----	11300	16500	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		5340	4500	----	----	4260
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		----	----	2680	4490	----
Potassium	7440-09-7	E472/VA	20	mg/kg		11400	14600	----	----	14600
Potassium	7440-09-7	E440/VA	20	mg/kg		----	----	18800	13800	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		3170	3810	----	----	3550
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		----	----	4440	3760	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		12.9	7.69	----	----	8.00
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		----	----	8.83	6.91	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		3.58	2.01	----	----	1.94
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		----	----	2.09	1.88	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		----	----	0.712	0.696	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg		2.57	4.00	----	----	21.8
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		----	----	0.169	0.189	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		0.713	1.04	----	----	5.31
Sodium	7440-23-5	E472/VA	20	mg/kg		2940	4390	----	----	5830
Sodium	7440-23-5	E440/VA	20	mg/kg		----	----	1830	2720	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		816	1150	----	----	1420
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		----	----	433	738	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		----	----	0.599	13.0	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		19.4	1.27	----	----	1.22
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		----	----	0.142	3.53	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		5.38	0.331	----	----	0.297
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		<0.020	<0.020	----	----	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		----	----	<0.020	<0.020	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	----	----	<0.0040
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		----	----	<0.0040	<0.0040	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		0.0222	0.0206	----	----	0.0229

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-5/DC-15_ef_20230824_RB_8	TL-01_an_20230909_RB_1 liver *	TL-01_an_20230909_RB_1 muscle *	TL-01_an_20230909_RB_1 carcass *	TL-01_gn_20230909_RB_1 liver *
					Client sampling date / time	24-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-016	VA23C2929-017	VA23C2929-018	VA23C2929-019	VA23C2929-020
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		----	----	0.0023	0.0023	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		0.00615	0.00539	----	----	0.00557
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		----	----	0.00054	0.00063	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		0.27	0.14	----	----	<0.10
Tin	7440-31-5	E440/VA	0.10	mg/kg		----	----	<0.10	<0.10	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		0.076	0.035	----	----	<0.020
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		----	----	<0.020	<0.020	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		0.0249	<0.0020	----	----	<0.0020
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		----	----	<0.0020	<0.0020	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		0.00692	<0.00040	----	----	0.00040
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		----	----	<0.00040	<0.00040	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		0.18	<0.10	----	----	0.13
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		----	----	<0.10	<0.10	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		0.049	<0.020	----	----	0.032
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		----	----	<0.020	<0.020	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		----	----	26.6	132	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		109	284	----	----	220
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		----	----	6.30	35.9	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		30.3	74.0	----	----	53.6
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		<0.20	<0.20	----	----	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		----	----	<0.20	<0.20	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	----	<0.040
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		----	----	<0.040	<0.040	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230909_RB_1 muscle*	TL-01_gn_20230909_RB_1 carcass*	TL-01_gn_20230909_RB_2 liver *	TL-01_gn_20230909_RB_2 muscle*	TL-01_gn_20230909_RB_2 carcass*
					Client sampling date / time	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-021	VA23C2929-022	VA23C2929-023	VA23C2929-024	VA23C2929-025
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		75.1	73.2	----	75.6	67.1
Moisture	----	E144-H/VA	2.0	%		----	----	70.7	----	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		<2.0	<2.0	----	<2.0	<2.0
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	<5.0	----	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		<0.40	<0.40	----	<0.40	<0.40
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	<1.0	----	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	<0.010
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.112	0.180	----	0.120	0.166
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	0.304	----	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0278	0.0482	----	0.0293	0.0546
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	0.0890	----	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	0.580	----	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		<0.050	0.391	----	<0.050	0.516
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	0.170	----	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		<0.010	0.105	----	<0.010	0.170
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	<0.0020
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	<1.0	----	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	<1.0	----	<1.0	<1.0

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230909_RB_1 muscle*	TL-01_gn_20230909_RB_1 carcass*	TL-01_gn_20230909_RB_2 liver *	TL-01_gn_20230909_RB_2 muscle*	TL-01_gn_20230909_RB_2 carcass*
					Client sampling date / time	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-021	VA23C2929-022	VA23C2929-023	VA23C2929-024	VA23C2929-025
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	<0.20	----	----
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	<0.20	----	<0.20	<0.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		<0.0050	0.0111	----	<0.0050	0.0081
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	0.045	----	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		<0.0010	0.0030	----	<0.0010	0.0027
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	0.0132	----	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	789	----	----
Calcium	7440-70-2	E440/VA	20	mg/kg		588	12000	----	634	19300
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	231	----	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		146	3210	----	155	6360
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	0.0082	----	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0099	0.0068	----	0.0117	0.0068
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	0.0024	----	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0024	0.0018	----	0.0028	0.0022
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.053	<0.050	----	<0.050	<0.050
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.013	<0.010	----	0.011	<0.010
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	0.055	----	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		<0.020	0.061	----	<0.020	0.036
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	0.0161	----	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0164	----	<0.0040	0.0120
Copper	7440-50-8	E440/VA	0.10	mg/kg		1.10	3.37	----	1.29	2.15
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	255	----	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.274	0.905	----	0.315	0.709
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	74.5	----	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		15.3	70.6	----	20.4	57.7
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	716	----	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		3.81	18.9	----	4.98	19.0

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230909_RB_1 muscle*	TL-01_gn_20230909_RB_1 carcass*	TL-01_gn_20230909_RB_2 liver *	TL-01_gn_20230909_RB_2 muscle*	TL-01_gn_20230909_RB_2 carcass*
					Client sampling date / time	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-021	VA23C2929-022	VA23C2929-023	VA23C2929-024	VA23C2929-025
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	210	----	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	<0.020	----	<0.020	<0.020
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	<0.050	----	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	----	<0.0040	<0.0040
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	<0.010	----	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	<0.50	----	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	----	<0.50	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	<0.10	----	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	----	<0.10	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	702	----	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1150	1040	----	1280	1120
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	205	----	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		286	278	----	313	369
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	2.40	----	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		0.249	2.44	----	0.265	3.55
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	0.702	----	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		0.062	0.654	----	0.065	1.17
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	0.571	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.932	0.678	----	0.690	0.392
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	0.167	----	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.232	0.182	----	0.168	0.129
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		<0.020	0.035	----	<0.020	0.026
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	0.830	----	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0094	----	<0.0040	0.0084
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	0.243	----	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	----	<0.20	<0.20
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	<0.040	<0.040

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230909_RB_1 muscle*	TL-01_gn_20230909_RB_1 carcass*	TL-01_gn_20230909_RB_2 liver *	TL-01_gn_20230909_RB_2 muscle*	TL-01_gn_20230909_RB_2 carcass*
					Client sampling date / time	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-021	VA23C2929-022	VA23C2929-023	VA23C2929-024	VA23C2929-025
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	13200	----	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		10500	14900	----	11400	19300
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	3870	----	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		2620	3990	----	2770	6350
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	13200	----	----
Potassium	7440-09-7	E440/VA	20	mg/kg		16900	12200	----	17800	10900
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	3850	----	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		4210	3280	----	4340	3590
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	8.52	----	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		6.74	5.25	----	9.54	6.08
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	2.49	----	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		1.68	1.41	----	2.33	2.00
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.552	0.903	----	0.888	0.893
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	47.4	----	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.138	0.242	----	0.217	0.294
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	13.9	----	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	3720	----	----
Sodium	7440-23-5	E440/VA	20	mg/kg		1530	3440	----	1750	2640
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	1090	----	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		382	923	----	427	868
Strontium	7440-24-6	E440/VA	0.050	mg/kg		0.418	12.1	----	0.450	18.7
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	1.17	----	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		0.104	3.24	----	0.110	6.16
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	0.342	----	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	0.031	----	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	----	<0.020	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	0.0091	----	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	----	<0.0040	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	0.0344	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230909_RB_1 muscle*	TL-01_gn_20230909_RB_1 carcass*	TL-01_gn_20230909_RB_2 liver *	TL-01_gn_20230909_RB_2 muscle*	TL-01_gn_20230909_RB_2 carcass*
					Client sampling date / time	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-021	VA23C2929-022	VA23C2929-023	VA23C2929-024	VA23C2929-025
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0032	0.0030	----	0.0042	0.0040
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	----	0.0101	----	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00080	0.00081	----	0.00102	0.00132
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	<0.10	----	----
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.13	<0.10	----	0.20	<0.10
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	<0.020	----	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.032	<0.020	----	0.048	<0.020
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	<0.0020	----	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	----	<0.0020	<0.0020
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	<0.00040	----	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	<0.00040	----	<0.00040	0.00043
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	<0.10	----	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	<0.10	----	<0.10	<0.10
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	0.024	----	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	<0.020	----	<0.020	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg		19.5	184	----	20.4	174
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	270	----	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		4.87	49.4	----	4.98	57.2
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	79.1	----	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	----	<0.20	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230909_RB_3 liver *	TL-01_gn_20230909_RB_3 muscle*	TL-01_gn_20230909_RB_3 carcass*	TL-01_gn_20230909_RB_4 liver *	TL-01_gn_20230909_RB_4 muscle*
					Client sampling date / time	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-026	VA23C2929-027	VA23C2929-028	VA23C2929-029	VA23C2929-030
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		----	75.0	71.5	----	76.0
Moisture	----	E144-H/VA	2.0	%		73.4	----	----	73.7	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		----	2.3	6.0	----	2.8
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		<5.0	----	----	12.3	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		----	0.57	1.71	----	0.68
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		<1.0	----	----	3.2	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		<0.010	----	----	<0.010	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		----	<0.010	<0.010	----	<0.010
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	<0.0020	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	----	0.0023
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		----	0.116	0.246	----	0.132
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		0.342	----	----	0.362	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		----	0.0289	0.0702	----	0.0317
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		0.0911	----	----	0.0954	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		0.530	----	----	0.790	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		----	<0.050	0.808	----	<0.050
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		0.141	----	----	0.208	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		----	<0.010	0.230	----	<0.010
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		<0.010	----	----	<0.010	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		----	<0.010	<0.010	----	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	<0.0020	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	----	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		<0.010	----	----	<0.010	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		----	<0.010	<0.010	----	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	<0.0020	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	----	<0.0020
Boron	7440-42-8	E472/VA	1.0	mg/kg		<1.0	----	----	<1.0	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		----	<1.0	<1.0	----	<1.0

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230909_RB_3 liver *	TL-01_gn_20230909_RB_3 muscle*	TL-01_gn_20230909_RB_3 carcass*	TL-01_gn_20230909_RB_4 liver *	TL-01_gn_20230909_RB_4 muscle*
					Client sampling date / time	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-026	VA23C2929-027	VA23C2929-028	VA23C2929-029	VA23C2929-030
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		<0.20	----	----	<0.20	----
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		----	<0.20	<0.20	----	<0.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		----	<0.0050	0.0076	----	<0.0050
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		0.041	----	----	0.061	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		----	<0.0010	0.0022	----	<0.0010
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		0.0109	----	----	0.0160	----
Calcium	7440-70-2	E472/VA	20	mg/kg		668	----	----	637	----
Calcium	7440-70-2	E440/VA	20	mg/kg		----	608	39100	----	634
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		178	----	----	168	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		----	152	11100	----	152
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		0.0066	----	----	0.0075	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		----	0.0110	0.0071	----	0.0091
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		0.0017	----	----	0.0020	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		----	0.0027	0.0020	----	0.0022
Chromium	7440-47-3	E440/VA	0.050	mg/kg		----	0.082	<0.050	----	<0.050
Chromium	7440-47-3	E472/VA	0.20	mg/kg		<0.20	----	----	0.32	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		----	0.020	0.010	----	<0.010
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	0.084	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		0.056	----	----	0.093	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		----	<0.020	0.047	----	<0.020
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		0.0149	----	----	0.0245	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	0.0133	----	<0.0040
Copper	7440-50-8	E440/VA	0.10	mg/kg		----	0.86	2.51	----	0.78
Copper	7440-50-8	E472/VA	0.20	mg/kg		178	----	----	36.7	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		----	0.214	0.716	----	0.186
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		47.5	----	----	9.65	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		----	12.5	51.4	----	25.5
Iron	7439-89-6	E472/VA	5.0	mg/kg		593	----	----	1080	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		----	3.13	14.6	----	6.10

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230909_RB_3 liver *	TL-01_gn_20230909_RB_3 muscle*	TL-01_gn_20230909_RB_3 carcass*	TL-01_gn_20230909_RB_4 liver *	TL-01_gn_20230909_RB_4 muscle*
					Client sampling date / time	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-026	VA23C2929-027	VA23C2929-028	VA23C2929-029	VA23C2929-030
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		158	----	----	285	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		----	<0.020	<0.020	----	<0.020
Lead	7439-92-1	E472/VA	0.050	mg/kg		<0.050	----	----	<0.050	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	<0.0040	----	<0.0040
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		<0.010	----	----	<0.010	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		<0.50	----	----	<0.50	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		----	<0.50	<0.50	----	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		<0.10	----	----	<0.10	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		----	<0.10	<0.10	----	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		719	----	----	765	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		----	1220	1500	----	1280
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		191	----	----	201	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		----	304	428	----	306
Manganese	7439-96-5	E472/VA	0.050	mg/kg		5.12	----	----	4.05	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		----	0.312	5.58	----	0.405
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		1.36	----	----	1.06	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		----	0.078	1.59	----	0.097
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		0.414	----	----	0.435	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		----	0.544	0.367	----	0.609
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		0.110	----	----	0.114	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		----	0.136	0.104	----	0.146
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		----	<0.020	0.030	----	<0.020
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		0.750	----	----	0.787	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	0.0086	----	<0.0040
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		0.200	----	----	0.207	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		<0.20	----	----	0.34	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		----	<0.20	<0.20	----	<0.20
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	0.088	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		----	<0.040	<0.040	----	<0.040

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230909_RB_3 liver *	TL-01_gn_20230909_RB_3 muscle*	TL-01_gn_20230909_RB_3 carcass*	TL-01_gn_20230909_RB_4 liver *	TL-01_gn_20230909_RB_4 muscle*
					Client sampling date / time	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-026	VA23C2929-027	VA23C2929-028	VA23C2929-029	VA23C2929-030
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		14900	----	----	14800	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		----	10600	29800	----	11000
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		3950	----	----	3900	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		----	2650	8500	----	2630
Potassium	7440-09-7	E472/VA	20	mg/kg		12900	----	----	13400	----
Potassium	7440-09-7	E440/VA	20	mg/kg		----	17500	12200	----	17800
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		3440	----	----	3530	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		----	4370	3470	----	4280
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		8.88	----	----	7.49	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		----	9.17	6.48	----	8.40
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		2.36	----	----	1.97	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		----	2.29	1.84	----	2.01
Selenium	7782-49-2	E440/VA	0.050	mg/kg		----	0.589	0.822	----	0.624
Selenium	7782-49-2	E472/VA	0.10	mg/kg		21.3	----	----	12.5	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		----	0.147	0.234	----	0.149
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		5.67	----	----	3.29	----
Sodium	7440-23-5	E472/VA	20	mg/kg		4180	----	----	4710	----
Sodium	7440-23-5	E440/VA	20	mg/kg		----	1560	3020	----	1680
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		1110	----	----	1240	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		----	389	860	----	404
Strontium	7440-24-6	E440/VA	0.050	mg/kg		----	0.462	38.5	----	0.508
Strontium	7440-24-6	E472/VA	0.10	mg/kg		1.19	----	----	1.48	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		----	0.115	11.0	----	0.122
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		0.316	----	----	0.388	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		<0.020	----	----	<0.020	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		----	<0.020	<0.020	----	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		<0.0040	----	----	<0.0040	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	<0.0040	----	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		0.0243	----	----	0.0329	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230909_RB_3 liver *	TL-01_gn_20230909_RB_3 muscle*	TL-01_gn_20230909_RB_3 carcass*	TL-01_gn_20230909_RB_4 liver *	TL-01_gn_20230909_RB_4 muscle*
					Client sampling date / time	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-026	VA23C2929-027	VA23C2929-028	VA23C2929-029	VA23C2929-030
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		----	0.0050	0.0064	----	0.0039
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		0.00647	----	----	0.00866	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		----	0.00126	0.00183	----	0.00094
Tin	7440-31-5	E472/VA	0.10	mg/kg		<0.10	----	----	<0.10	----
Tin	7440-31-5	E440/VA	0.10	mg/kg		----	0.14	<0.10	----	0.13
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		<0.020	----	----	<0.020	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		----	0.036	<0.020	----	0.032
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		<0.0020	----	----	<0.0020	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		----	<0.0020	<0.0020	----	<0.0020
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		<0.00040	----	----	<0.00040	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		----	<0.00040	<0.00040	----	<0.00040
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		<0.10	----	----	0.11	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		----	<0.10	<0.10	----	<0.10
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		<0.020	----	----	0.029	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		----	<0.020	<0.020	----	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg		----	17.0	163	----	23.2
Zinc	7440-66-6	E472/VA	1.0	mg/kg		241	----	----	213	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		----	4.24	46.3	----	5.56
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		64.2	----	----	56.0	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		<0.20	----	----	<0.20	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		----	<0.20	<0.20	----	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	<0.040	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		----	<0.040	<0.040	----	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230909_RB_4 carcass*	TL-01_gn_20230909_RB_5 liver *	TL-01_gn_20230909_RB_5 muscle*	TL-01_gn_20230909_RB_5 carcass*	TL-01_gn_20230909_RB_6 liver *
					Client sampling date / time	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-031	VA23C2929-032	VA23C2929-033	VA23C2929-034	VA23C2929-035
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		72.1	----	73.5	70.1	----
Moisture	----	E144-H/VA	2.0	%		----	74.7	----	----	76.9
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		8.7	----	<2.0	<2.0	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	<5.0	----	----	<5.0
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		2.42	----	<0.40	<0.40	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	<1.0	----	----	<1.0
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	<0.010	----	----	<0.010
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	<0.0020
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.235	----	0.192	0.444	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	0.505	----	----	0.357
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0656	----	0.0508	0.133	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	0.128	----	----	0.0824
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	0.732	----	----	0.647
Barium	7440-39-3	E440/VA	0.050	mg/kg		0.570	----	<0.050	0.213	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	0.185	----	----	0.149
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		0.159	----	<0.010	0.064	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	<0.010	----	----	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	<0.0020
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	<0.010	----	----	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	<0.0020
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	<1.0	----	----	<1.0
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	----	<1.0	<1.0	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230909_RB_4 carcass*	TL-01_gn_20230909_RB_5 liver *	TL-01_gn_20230909_RB_5 muscle*	TL-01_gn_20230909_RB_5 carcass*	TL-01_gn_20230909_RB_6 liver *
					Client sampling date / time	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-031	VA23C2929-032	VA23C2929-033	VA23C2929-034	VA23C2929-035
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	<0.20	----	----	<0.20
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	----	<0.20	<0.20	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0102	----	<0.0050	0.0107	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	0.042	----	----	0.085
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0028	----	<0.0010	0.0032	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	0.0107	----	----	0.0196
Calcium	7440-70-2	E472/VA	20	mg/kg		----	625	----	----	565
Calcium	7440-70-2	E440/VA	20	mg/kg		21800	----	479	6070	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	158	----	----	130
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		6080	----	127	1820	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	0.0053	----	----	0.0062
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0066	----	0.0066	<0.0050	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	0.0013	----	----	0.0014
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0018	----	0.0017	0.0013	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.050	----	<0.050	<0.050	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	<0.20	----	----	<0.20
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.014	----	<0.010	<0.010	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	<0.040
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	0.048	----	----	0.074
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.057	----	<0.020	0.034	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	0.0121	----	----	0.0170
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0160	----	<0.0040	0.0101	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		1.43	----	0.70	1.42	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	86.2	----	----	87.2
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.400	----	0.185	0.425	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	21.8	----	----	20.1
Iron	7439-89-6	E440/VA	3.0	mg/kg		67.3	----	8.0	37.0	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	475	----	----	958
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		18.8	----	2.13	11.1	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230909_RB_4 carcass*	TL-01_gn_20230909_RB_5 liver *	TL-01_gn_20230909_RB_5 muscle*	TL-01_gn_20230909_RB_5 carcass*	TL-01_gn_20230909_RB_6 liver *
					Client sampling date / time	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-031	VA23C2929-032	VA23C2929-033	VA23C2929-034	VA23C2929-035
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	120	----	----	221
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.048	----	<0.020	<0.020	----
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	<0.050	----	----	<0.050
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0133	----	<0.0040	<0.0040	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	<0.010	----	----	<0.010
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	<0.50	----	----	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	----	<0.50	<0.50	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	<0.10	----	----	<0.10
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	----	<0.10	<0.10	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	711	----	----	690
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1290	----	1190	899	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	180	----	----	159
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		358	----	316	269	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	3.98	----	----	3.96
Manganese	7439-96-5	E440/VA	0.050	mg/kg		5.86	----	0.340	3.26	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	1.00	----	----	0.913
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		1.63	----	0.090	0.974	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	0.158	----	----	0.457
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.442	----	0.225	0.178	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	0.0399	----	----	0.106
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.123	----	0.0598	0.0532	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.033	----	<0.020	0.031	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	0.627	----	----	0.766
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0091	----	<0.0040	0.0093	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	0.158	----	----	0.177
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	<0.20	----	----	<0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	----	<0.20	<0.20	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	<0.040
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	<0.040	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230909_RB_4 carcass*	TL-01_gn_20230909_RB_5 liver *	TL-01_gn_20230909_RB_5 muscle*	TL-01_gn_20230909_RB_5 carcass*	TL-01_gn_20230909_RB_6 liver *
					Client sampling date / time	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-031	VA23C2929-032	VA23C2929-033	VA23C2929-034	VA23C2929-035
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	13000	----	----	14000
Phosphorus	7723-14-0	E440/VA	10	mg/kg		20400	----	10700	10400	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	3290	----	----	3230
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		5700	----	2830	3100	----
Potassium	7440-09-7	E472/VA	20	mg/kg		----	12600	----	----	14300
Potassium	7440-09-7	E440/VA	20	mg/kg		12500	----	16400	11000	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	3180	----	----	3300
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3480	----	4350	3290	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	7.59	----	----	7.83
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		6.11	----	8.05	5.56	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	1.92	----	----	1.80
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		1.70	----	2.13	1.66	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.797	----	0.493	0.757	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	18.6	----	----	19.5
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.222	----	0.131	0.226	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	4.69	----	----	4.50
Sodium	7440-23-5	E472/VA	20	mg/kg		----	3820	----	----	4230
Sodium	7440-23-5	E440/VA	20	mg/kg		3070	----	1370	2240	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	965	----	----	976
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		857	----	363	671	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		21.0	----	0.352	7.13	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	1.14	----	----	1.07
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		5.86	----	0.093	2.13	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	0.287	----	----	0.247
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	<0.020	----	----	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	----	<0.020	<0.020	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	<0.0040	----	----	<0.0040
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	----	<0.0040	<0.0040	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	0.0279	----	----	0.0283

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230909_RB_4 carcass*	TL-01_gn_20230909_RB_5 liver *	TL-01_gn_20230909_RB_5 muscle*	TL-01_gn_20230909_RB_5 carcass*	TL-01_gn_20230909_RB_6 liver *
					Client sampling date / time	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-031	VA23C2929-032	VA23C2929-033	VA23C2929-034	VA23C2929-035
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0040	----	0.0035	0.0032	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	0.00704	----	----	0.00654
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00111	----	0.00092	0.00096	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	<0.10	----	----	<0.10
Tin	7440-31-5	E440/VA	0.10	mg/kg		<0.10	----	0.19	<0.10	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	<0.020	----	----	<0.020
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		<0.020	----	0.051	<0.020	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	<0.0020	----	----	<0.0020
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	----	<0.0020	<0.0020	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	<0.00040	----	----	<0.00040
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.00049	----	<0.00040	<0.00040	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	<0.10	----	----	0.14
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	----	<0.10	<0.10	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	<0.020	----	----	0.031
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	----	<0.020	<0.020	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		143	----	16.7	101	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	145	----	----	176
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		40.0	----	4.43	30.3	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	36.7	----	----	40.5
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	<0.20	----	----	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	----	<0.20	<0.20	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	<0.040
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	<0.040	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230909_RB_6 muscle *	TL-01_gn_20230909_RB_6 carcass*	TL-01_gn_20230909_RB_7 liver *	TL-01_gn_20230909_RB_7 muscle *	TL-01_gn_20230909_RB_7 carcass*
					Client sampling date / time	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-036	VA23C2929-037	VA23C2929-038	VA23C2929-039	VA23C2929-040
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		75.5	70.6	----	74.9	74.0
Moisture	----	E144-H/VA	2.0	%		----	----	73.1	----	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		<2.0	<2.0	----	<2.0	2.3
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	<5.0	----	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		<0.40	<0.40	----	<0.40	0.60
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	<1.0	----	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	<0.010
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.095	0.242	----	0.159	0.464
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	0.501	----	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0232	0.0713	----	0.0398	0.121
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	0.135	----	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	0.820	----	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		<0.050	0.172	----	<0.050	0.437
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	0.220	----	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		<0.010	0.051	----	<0.010	0.114
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	<0.0020
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	<1.0	----	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	<1.0	----	<1.0	<1.0

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230909_RB_6 muscle *	TL-01_gn_20230909_RB_6 carcass*	TL-01_gn_20230909_RB_7 liver *	TL-01_gn_20230909_RB_7 muscle *	TL-01_gn_20230909_RB_7 carcass*
					Client sampling date / time	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-036	VA23C2929-037	VA23C2929-038	VA23C2929-039	VA23C2929-040
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	<0.20	----	----
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	<0.20	----	<0.20	<0.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		<0.0050	0.0159	----	<0.0050	0.0080
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	0.059	----	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		<0.0010	0.0047	----	<0.0010	0.0021
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	0.0159	----	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	994	----	----
Calcium	7440-70-2	E440/VA	20	mg/kg		603	4000	----	665	9480
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	267	----	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		148	1180	----	167	2470
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	0.0076	----	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0070	<0.0050	----	0.0087	0.0073
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	0.0020	----	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0017	0.0013	----	0.0022	0.0019
Chromium	7440-47-3	E440/VA	0.050	mg/kg		<0.050	<0.050	----	0.052	<0.050
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		<0.010	<0.010	----	0.013	<0.010
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	0.074	----	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		<0.020	0.056	----	<0.020	0.055
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	0.0198	----	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0166	----	<0.0040	0.0144
Copper	7440-50-8	E440/VA	0.10	mg/kg		0.91	1.46	----	1.07	2.64
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	276	----	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.223	0.428	----	0.268	0.687
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	74.2	----	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		12.5	55.3	----	11.1	61.3
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	1090	----	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		3.07	16.3	----	2.78	15.9

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230909_RB_6 muscle *	TL-01_gn_20230909_RB_6 carcass*	TL-01_gn_20230909_RB_7 liver *	TL-01_gn_20230909_RB_7 muscle *	TL-01_gn_20230909_RB_7 carcass*
					Client sampling date / time	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-036	VA23C2929-037	VA23C2929-038	VA23C2929-039	VA23C2929-040
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	294	----	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	<0.020	----	<0.020	<0.020
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	<0.050	----	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	----	<0.0040	<0.0040
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	<0.010	----	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	<0.50	----	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	----	<0.50	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	<0.10	----	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	----	<0.10	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	799	----	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1210	767	----	1080	1190
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	215	----	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		296	226	----	271	310
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	5.00	----	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		0.278	1.89	----	0.236	3.35
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	1.34	----	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		0.068	0.556	----	0.059	0.870
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	0.246	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.473	0.424	----	0.351	0.270
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	0.0662	----	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.116	0.125	----	0.0880	0.0703
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		<0.020	0.028	----	<0.020	0.030
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	0.703	----	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0082	----	<0.0040	0.0078
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	0.189	----	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	----	<0.20	<0.20
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	<0.040	<0.040

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230909_RB_6 muscle *	TL-01_gn_20230909_RB_6 carcass*	TL-01_gn_20230909_RB_7 liver *	TL-01_gn_20230909_RB_7 muscle *	TL-01_gn_20230909_RB_7 carcass*
					Client sampling date / time	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-036	VA23C2929-037	VA23C2929-038	VA23C2929-039	VA23C2929-040
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	15000	----	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		10900	9140	----	10100	14200
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	4020	----	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		2670	2690	----	2530	3710
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	13800	----	----
Potassium	7440-09-7	E440/VA	20	mg/kg		17200	10600	----	16300	13800
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	3730	----	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		4200	3120	----	4100	3580
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	10.3	----	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		7.32	4.97	----	9.75	8.71
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	2.77	----	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		1.79	1.46	----	2.44	2.26
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.599	0.813	----	0.652	0.960
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	30.1	----	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.146	0.239	----	0.163	0.250
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	8.09	----	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	3980	----	----
Sodium	7440-23-5	E440/VA	20	mg/kg		1540	2710	----	1510	2840
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	1070	----	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		376	798	----	379	740
Strontium	7440-24-6	E440/VA	0.050	mg/kg		0.405	4.54	----	0.533	12.5
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	1.88	----	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		0.099	1.34	----	0.134	3.25
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	0.506	----	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	<0.020	----	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	----	<0.020	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	<0.0040	----	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	----	<0.0040	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	0.0334	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230909_RB_6 muscle *	TL-01_gn_20230909_RB_6 carcass*	TL-01_gn_20230909_RB_7 liver *	TL-01_gn_20230909_RB_7 muscle *	TL-01_gn_20230909_RB_7 carcass*
					Client sampling date / time	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2929-036	VA23C2929-037	VA23C2929-038	VA23C2929-039	VA23C2929-040
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0036	0.0030	----	0.0038	0.0043
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	----	0.00899	----	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00089	0.00088	----	0.00094	0.00111
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	<0.10	----	----
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.25	<0.10	----	0.14	<0.10
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	<0.020	----	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.062	<0.020	----	0.036	<0.020
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	<0.0020	----	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	----	<0.0020	<0.0020
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	<0.00040	----	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	<0.00040	----	<0.00040	<0.00040
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	<0.10	----	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	<0.10	----	<0.10	<0.10
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	0.022	----	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	<0.020	----	<0.020	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg		18.2	101	----	18.2	147
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	156	----	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		4.46	29.6	----	4.55	38.2
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	41.8	----	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	----	<0.20	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_1 liver *	TL-01_gn_20230907_MW_1 muscle *	TL-01_gn_20230907_MW_1 carcass*	TL-01_gn_20230907_MW_2 liver *	TL-01_gn_20230907_MW_2 muscle *
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00
						VA23C2929-041	VA23C2929-042	VA23C2929-043	VA23C2929-044	VA23C2929-045
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		----	79.0	74.5	----	78.4
Moisture	----	E144-H/VA	2.0	%		75.6	----	----	76.5	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		----	2.8	42.0	----	2.1
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		<5.0	----	----	<5.0	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		----	0.59	10.7	----	0.45
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		<1.0	----	----	<1.0	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		<0.010	----	----	<0.010	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		----	<0.010	<0.010	----	<0.010
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	<0.0020	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	----	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		----	0.200	0.216	----	0.109
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		0.239	----	----	0.271	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		----	0.0420	0.0551	----	0.0236
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		0.0583	----	----	0.0637	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		1.04	----	----	0.788	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		----	0.069	1.10	----	0.090
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		0.253	----	----	0.185	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		----	0.014	0.280	----	0.020
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		<0.010	----	----	<0.010	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		----	<0.010	<0.010	----	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	<0.0020	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	----	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		<0.010	----	----	<0.010	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		----	<0.010	<0.010	----	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	<0.0020	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	----	<0.0020
Boron	7440-42-8	E472/VA	1.0	mg/kg		<1.0	----	----	<1.0	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		----	<1.0	<1.0	----	<1.0

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_1 liver *	TL-01_gn_20230907_MW_1 muscle *	TL-01_gn_20230907_MW_1 carcass*	TL-01_gn_20230907_MW_2 liver *	TL-01_gn_20230907_MW_2 muscle *
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00
						VA23C2929-041	VA23C2929-042	VA23C2929-043	VA23C2929-044	VA23C2929-045
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		0.24	----	----	<0.20	----
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		----	<0.20	<0.20	----	<0.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		----	<0.0050	0.0187	----	<0.0050
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		0.105	----	----	0.046	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		----	<0.0010	0.0048	----	<0.0010
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		0.0256	----	----	0.0108	----
Calcium	7440-70-2	E472/VA	20	mg/kg		266	----	----	702	----
Calcium	7440-70-2	E440/VA	20	mg/kg		----	1160	24100	----	1070
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		64.9	----	----	165	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		----	244	6160	----	232
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		0.0152	----	----	0.0124	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		----	0.0231	0.0173	----	0.0144
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		0.0037	----	----	0.0029	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		----	0.0048	0.0044	----	0.0031
Chromium	7440-47-3	E440/VA	0.050	mg/kg		----	0.071	0.100	----	0.059
Chromium	7440-47-3	E472/VA	0.20	mg/kg		<0.20	----	----	<0.20	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		----	0.015	0.025	----	0.013
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	0.046	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		0.142	----	----	0.127	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		----	0.021	0.078	----	<0.020
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		0.0345	----	----	0.0299	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		----	0.0044	0.0199	----	0.0042
Copper	7440-50-8	E440/VA	0.10	mg/kg		----	1.02	1.90	----	0.90
Copper	7440-50-8	E472/VA	0.20	mg/kg		7.16	----	----	7.92	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		----	0.214	0.485	----	0.194
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		1.75	----	----	1.86	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		----	19.0	136	----	14.3
Iron	7439-89-6	E472/VA	5.0	mg/kg		259	----	----	359	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		----	3.99	34.7	----	3.10

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_1 liver *	TL-01_gn_20230907_MW_1 muscle *	TL-01_gn_20230907_MW_1 carcass*	TL-01_gn_20230907_MW_2 liver *	TL-01_gn_20230907_MW_2 muscle *
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00
						VA23C2929-041	VA23C2929-042	VA23C2929-043	VA23C2929-044	VA23C2929-045
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		63.2	----	----	84.4	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		----	<0.020	0.024	----	<0.020
Lead	7439-92-1	E472/VA	0.050	mg/kg		<0.050	----	----	<0.050	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	0.0062	----	<0.0040
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		<0.010	----	----	<0.010	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		<0.50	----	----	<0.50	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		----	<0.50	<0.50	----	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		<0.10	----	----	<0.10	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		----	<0.10	<0.10	----	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		1140	----	----	877	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		----	1370	1380	----	1270
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		278	----	----	206	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		----	287	353	----	276
Manganese	7439-96-5	E472/VA	0.050	mg/kg		7.17	----	----	6.55	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		----	0.859	14.4	----	0.953
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		1.75	----	----	1.54	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		----	0.180	3.69	----	0.206
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		0.784	----	----	0.398	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		----	0.568	0.427	----	0.267
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		0.191	----	----	0.0935	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		----	0.119	0.109	----	0.0577
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		----	<0.020	0.029	----	<0.020
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		0.930	----	----	0.796	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	0.0074	----	<0.0040
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		0.227	----	----	0.187	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		<0.20	----	----	<0.20	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		----	<0.20	<0.20	----	<0.20
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	<0.040	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		----	<0.040	<0.040	----	<0.040

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_1 liver *	TL-01_gn_20230907_MW_1 muscle *	TL-01_gn_20230907_MW_1 carcass*	TL-01_gn_20230907_MW_2 liver *	TL-01_gn_20230907_MW_2 muscle *
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00
						VA23C2929-041	VA23C2929-042	VA23C2929-043	VA23C2929-044	VA23C2929-045
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		15900	----	----	17200	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		----	11600	22400	----	11200
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		3890	----	----	4040	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		----	2440	5730	----	2430
Potassium	7440-09-7	E472/VA	20	mg/kg		15200	----	----	16900	----
Potassium	7440-09-7	E440/VA	20	mg/kg		----	19900	13800	----	19800
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		3720	----	----	3970	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		----	4170	3530	----	4270
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		8.62	----	----	7.48	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		----	9.58	7.04	----	7.14
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		2.10	----	----	1.76	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		----	2.01	1.80	----	1.54
Selenium	7782-49-2	E440/VA	0.050	mg/kg		----	1.62	2.32	----	0.791
Selenium	7782-49-2	E472/VA	0.10	mg/kg		7.58	----	----	3.94	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		----	0.340	0.592	----	0.171
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		1.85	----	----	0.926	----
Sodium	7440-23-5	E472/VA	20	mg/kg		4130	----	----	4230	----
Sodium	7440-23-5	E440/VA	20	mg/kg		----	1940	3380	----	1860
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		1010	----	----	994	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		----	406	862	----	403
Strontium	7440-24-6	E440/VA	0.050	mg/kg		----	0.890	23.0	----	0.708
Strontium	7440-24-6	E472/VA	0.10	mg/kg		0.30	----	----	0.58	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		----	0.187	5.88	----	0.153
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		0.074	----	----	0.135	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		<0.020	----	----	<0.020	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		----	<0.020	<0.020	----	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		<0.0040	----	----	<0.0040	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	<0.0040	----	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		0.0207	----	----	0.0178	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_1 liver *	TL-01_gn_20230907_MW_1 muscle *	TL-01_gn_20230907_MW_1 carcass*	TL-01_gn_20230907_MW_2 liver *	TL-01_gn_20230907_MW_2 muscle *
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00
						VA23C2929-041	VA23C2929-042	VA23C2929-043	VA23C2929-044	VA23C2929-045
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		----	0.0072	0.0076	----	0.0043
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		0.00505	----	----	0.00417	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		----	0.00152	0.00193	----	0.00094
Tin	7440-31-5	E472/VA	0.10	mg/kg		<0.10	----	----	<0.10	----
Tin	7440-31-5	E440/VA	0.10	mg/kg		----	0.37	<0.10	----	0.12
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		<0.020	----	----	<0.020	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		----	0.078	<0.020	----	0.027
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		0.0058	----	----	0.0081	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		----	<0.0020	0.0113	----	<0.0020
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		0.00141	----	----	0.00190	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		----	<0.00040	0.00288	----	<0.00040
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		0.12	----	----	<0.10	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		----	<0.10	0.25	----	<0.10
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		0.029	----	----	0.023	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		----	<0.020	0.064	----	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg		----	19.7	64.6	----	19.0
Zinc	7440-66-6	E472/VA	1.0	mg/kg		122	----	----	149	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		----	4.14	16.5	----	4.11
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		29.7	----	----	34.9	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		<0.20	----	----	<0.20	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		----	<0.20	<0.20	----	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	<0.040	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		----	<0.040	<0.040	----	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_2 carcass *	TL-01_gn_20230907_MW_3 liver *	TL-01_gn_20230907_MW_3 muscle *	TL-01_gn_20230907_MW_3 carcass *	TL-01_gn_20230907_MW_4 liver*
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00
						VA23C2929-046	VA23C2929-047	VA23C2929-048	VA23C2929-049	VA23C2929-050
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		74.7	----	78.4	71.6	----
Moisture	----	E144-H/VA	2.0	%		----	79.0	----	----	75.7
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		38.5	----	<2.0	9.6	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	<5.0	----	----	<5.0
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		9.75	----	<0.40	2.72	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	<1.0	----	----	<1.0
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	<0.010	----	----	<0.010
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	<0.0020
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.154	----	0.297	0.277	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	0.248	----	----	0.071
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0390	----	0.0642	0.0786	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	0.0521	----	----	0.0171
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	1.35	----	----	0.444
Barium	7440-39-3	E440/VA	0.050	mg/kg		1.04	----	0.085	0.776	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	0.283	----	----	0.108
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		0.264	----	0.018	0.220	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	<0.010	----	----	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	<0.0020
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	<0.010	----	----	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	<0.0020
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	<1.0	----	----	<1.0
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	----	<1.0	<1.0	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_2 carcass *	TL-01_gn_20230907_MW_3 liver *	TL-01_gn_20230907_MW_3 muscle *	TL-01_gn_20230907_MW_3 carcass *	TL-01_gn_20230907_MW_4 liver*
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00
						VA23C2929-046	VA23C2929-047	VA23C2929-048	VA23C2929-049	VA23C2929-050
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	0.20	----	----	<0.20
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	----	<0.20	<0.20	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0086	----	<0.0050	0.0107	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	0.041	----	----	0.042
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0022	----	<0.0010	0.0030	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	0.0085	----	----	0.0103
Calcium	7440-70-2	E472/VA	20	mg/kg		----	815	----	----	225
Calcium	7440-70-2	E440/VA	20	mg/kg		15400	----	1330	25900	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	171	----	----	54.7
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		3900	----	286	7340	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	0.0098	----	----	0.0081
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0121	----	0.0109	0.0072	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	0.0021	----	----	0.0020
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0030	----	0.0024	0.0020	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.082	----	0.062	<0.050	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	0.23	----	----	<0.20
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.021	----	0.013	0.012	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	0.048	----	----	<0.040
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	0.111	----	----	0.068
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.075	----	<0.020	0.039	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	0.0232	----	----	0.0164
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0189	----	<0.0040	0.0111	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		1.62	----	0.89	1.42	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	7.86	----	----	4.30
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.410	----	0.192	0.402	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	1.65	----	----	1.04
Iron	7439-89-6	E440/VA	3.0	mg/kg		99.2	----	11.8	58.6	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	227	----	----	155
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		25.1	----	2.55	16.6	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_2 carcass *	TL-01_gn_20230907_MW_3 liver *	TL-01_gn_20230907_MW_3 muscle *	TL-01_gn_20230907_MW_3 carcass *	TL-01_gn_20230907_MW_4 liver*
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00
						VA23C2929-046	VA23C2929-047	VA23C2929-048	VA23C2929-049	VA23C2929-050
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	47.7	----	----	37.7
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.038	----	0.024	0.020	----
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	<0.050	----	----	<0.050
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0097	----	0.0051	0.0057	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	<0.010	----	----	<0.010
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	<0.50	----	----	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	----	<0.50	<0.50	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	<0.10	----	----	<0.10
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	----	<0.10	<0.10	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	1170	----	----	840
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1200	----	1460	1300	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	245	----	----	204
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		304	----	315	370	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	4.41	----	----	5.92
Manganese	7439-96-5	E440/VA	0.050	mg/kg		13.0	----	0.917	9.23	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	0.926	----	----	1.44
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		3.30	----	0.198	2.62	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	0.376	----	----	0.781
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.214	----	0.289	0.202	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	0.0790	----	----	0.190
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0541	----	0.0624	0.0572	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.021	----	<0.020	0.020	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	0.867	----	----	0.655
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0054	----	<0.0040	0.0057	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	0.182	----	----	0.159
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	<0.20	----	----	<0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	----	<0.20	<0.20	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	<0.040
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	<0.040	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_2 carcass *	TL-01_gn_20230907_MW_3 liver *	TL-01_gn_20230907_MW_3 muscle *	TL-01_gn_20230907_MW_3 carcass *	TL-01_gn_20230907_MW_4 liver*
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00
						VA23C2929-046	VA23C2929-047	VA23C2929-048	VA23C2929-049	VA23C2929-050
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	17400	----	----	16700
Phosphorus	7723-14-0	E440/VA	10	mg/kg		17400	----	12300	23000	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	3660	----	----	4060
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		4400	----	2660	6510	----
Potassium	7440-09-7	E472/VA	20	mg/kg		----	17800	----	----	14100
Potassium	7440-09-7	E440/VA	20	mg/kg		14200	----	20300	13200	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	3750	----	----	3430
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3590	----	4380	3730	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	12.0	----	----	6.36
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		5.42	----	11.0	7.36	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	2.52	----	----	1.54
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		1.37	----	2.38	2.08	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		1.01	----	0.634	0.771	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	3.67	----	----	2.41
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.255	----	0.137	0.218	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	0.770	----	----	0.586
Sodium	7440-23-5	E472/VA	20	mg/kg		----	3860	----	----	3360
Sodium	7440-23-5	E440/VA	20	mg/kg		2890	----	2020	2830	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	811	----	----	817
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		731	----	437	802	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		14.2	----	0.881	22.5	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	0.64	----	----	0.22
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		3.59	----	0.190	6.39	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	0.134	----	----	0.053
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	<0.020	----	----	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	----	<0.020	<0.020	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	<0.0040	----	----	<0.0040
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	----	<0.0040	<0.0040	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	0.0221	----	----	0.0126

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_2 carcass *	TL-01_gn_20230907_MW_3 liver *	TL-01_gn_20230907_MW_3 muscle *	TL-01_gn_20230907_MW_3 carcass *	TL-01_gn_20230907_MW_4 liver*
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00
						VA23C2929-046	VA23C2929-047	VA23C2929-048	VA23C2929-049	VA23C2929-050
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0044	----	0.0037	0.0044	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	0.00463	----	----	0.00306
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00113	----	0.00081	0.00124	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	<0.10	----	----	<0.10
Tin	7440-31-5	E440/VA	0.10	mg/kg		<0.10	----	0.15	<0.10	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	<0.020	----	----	<0.020
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		<0.020	----	0.033	<0.020	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	<0.0020	----	----	0.0065
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0149	----	<0.0020	0.0055	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	0.00040	----	----	0.00159
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.00377	----	<0.00040	0.00156	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	<0.10	----	----	0.25
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		0.22	----	<0.10	0.14	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	<0.020	----	----	0.060
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.055	----	<0.020	0.039	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		63.1	----	19.6	65.2	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	94.2	----	----	106
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		16.0	----	4.24	18.5	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	19.8	----	----	25.8
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	<0.20	----	----	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	----	<0.20	<0.20	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	<0.040
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	<0.040	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_4 muscle*	TL-01_gn_20230907_MW_4 carcass*	TL-01_gn_20230907_MW_5 liver*	TL-01_gn_20230907_MW_5 muscle*	TL-01_gn_20230907_MW_5 carcass*
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00
						VA23C2929-051	VA23C2929-052	VA23C2929-053	VA23C2929-054	VA23C2929-055
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		79.6	78.6	----	78.0	72.5
Moisture	----	E144-H/VA	2.0	%		----	----	76.4	----	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		3.0	38.1	----	<2.0	4.2
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	<5.0	----	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		0.61	8.14	----	<0.40	1.16
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	<1.0	----	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	<0.010
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.074	0.168	----	0.286	0.274
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	0.216	----	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0151	0.0360	----	0.0628	0.0752
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	0.0509	----	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	0.482	----	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		0.113	1.67	----	<0.050	1.20
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	0.114	----	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		0.023	0.357	----	<0.010	0.330
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	<0.0020
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	<1.0	----	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	<1.0	----	<1.0	<1.0

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_4 muscle*	TL-01_gn_20230907_MW_4 carcass*	TL-01_gn_20230907_MW_5 liver*	TL-01_gn_20230907_MW_5 muscle*	TL-01_gn_20230907_MW_5 carcass*
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00
						VA23C2929-051	VA23C2929-052	VA23C2929-053	VA23C2929-054	VA23C2929-055
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	<0.20	----	----
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	<0.20	----	<0.20	<0.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		<0.0050	0.0103	----	<0.0050	0.0088
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	0.045	----	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		<0.0010	0.0022	----	<0.0010	0.0024
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	0.0107	----	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	328	----	----
Calcium	7440-70-2	E440/VA	20	mg/kg		2640	43100	----	1050	24700
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	77.3	----	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		539	9210	----	231	6800
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	0.0144	----	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0145	0.0123	----	0.0223	0.0120
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	0.0034	----	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0030	0.0026	----	0.0049	0.0033
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.078	0.091	----	<0.050	<0.050
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.016	0.019	----	<0.010	<0.010
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	0.093	----	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		<0.020	0.071	----	<0.020	0.064
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	0.0219	----	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0152	----	<0.0040	0.0178
Copper	7440-50-8	E440/VA	0.10	mg/kg		0.91	1.88	----	0.79	1.33
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	5.42	----	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.186	0.402	----	0.173	0.367
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	1.28	----	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		27.9	237	----	12.1	61.4
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	350	----	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		5.69	50.6	----	2.65	16.9

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_4 muscle*	TL-01_gn_20230907_MW_4 carcass*	TL-01_gn_20230907_MW_5 liver*	TL-01_gn_20230907_MW_5 muscle*	TL-01_gn_20230907_MW_5 carcass*
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00
						VA23C2929-051	VA23C2929-052	VA23C2929-053	VA23C2929-054	VA23C2929-055
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	82.4	----	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	0.029	----	<0.020	<0.020
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	<0.050	----	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0062	----	<0.0040	<0.0040
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	<0.010	----	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	<0.50	----	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	----	<0.50	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	<0.10	----	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	----	<0.10	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	902	----	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1390	1750	----	1320	1270
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	212	----	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		284	374	----	290	350
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	5.42	----	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		1.54	20.6	----	0.575	9.72
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	1.28	----	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		0.314	4.41	----	0.126	2.67
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	0.445	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.726	0.542	----	0.416	0.268
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	0.105	----	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.148	0.116	----	0.0914	0.0737
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		<0.020	0.036	----	<0.020	0.021
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	0.653	----	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0078	----	<0.0040	0.0058
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	0.154	----	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	----	<0.20	<0.20
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	<0.040	<0.040

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_4 muscle*	TL-01_gn_20230907_MW_4 carcass*	TL-01_gn_20230907_MW_5 liver*	TL-01_gn_20230907_MW_5 muscle*	TL-01_gn_20230907_MW_5 carcass*
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00
						VA23C2929-051	VA23C2929-052	VA23C2929-053	VA23C2929-054	VA23C2929-055
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	17900	----	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		12500	33400	----	11600	21300
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	4220	----	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		2540	7150	----	2550	5870
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	15600	----	----
Potassium	7440-09-7	E440/VA	20	mg/kg		19900	16000	----	19700	11600
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	3670	----	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		4060	3410	----	4320	3180
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	17.8	----	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		4.60	3.84	----	12.0	7.63
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	4.19	----	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		0.939	0.820	----	2.62	2.10
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.596	1.12	----	0.530	0.885
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	2.56	----	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.121	0.239	----	0.116	0.243
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	0.603	----	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	3760	----	----
Sodium	7440-23-5	E440/VA	20	mg/kg		2000	4320	----	1860	3070
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	885	----	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		408	924	----	408	845
Strontium	7440-24-6	E440/VA	0.050	mg/kg		2.12	35.3	----	0.702	22.6
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	0.23	----	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		0.432	7.54	----	0.154	6.20
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	0.054	----	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	<0.020	----	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	----	<0.020	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	<0.0040	----	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	----	<0.0040	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	0.0162	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_4 muscle*	TL-01_gn_20230907_MW_4 carcass*	TL-01_gn_20230907_MW_5 liver*	TL-01_gn_20230907_MW_5 muscle*	TL-01_gn_20230907_MW_5 carcass*
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00
						VA23C2929-051	VA23C2929-052	VA23C2929-053	VA23C2929-054	VA23C2929-055
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0045	0.0062	----	0.0059	0.0057
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	----	0.00382	----	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00093	0.00133	----	0.00131	0.00157
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	<0.10	----	----
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.12	<0.10	----	0.14	<0.10
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	<0.020	----	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.025	<0.020	----	0.031	<0.020
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	0.0110	----	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	0.0231	----	<0.0020	0.0159
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	0.00258	----	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	0.00493	----	<0.00040	0.00436
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	0.22	----	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	0.69	----	<0.10	0.28
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	0.052	----	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	0.147	----	<0.020	0.078
Zinc	7440-66-6	E440/VA	0.50	mg/kg		15.6	89.8	----	13.6	80.4
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	86.1	----	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		3.18	19.2	----	2.99	22.1
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	20.3	----	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	----	<0.20	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_6 liver*	TL-01_gn_20230907_MW_6 muscle*	TL-01_gn_20230907_MW_6 carcass*	TL-01_gn_20230907_MW_7 liver*	TL-01_gn_20230907_MW_7 muscle*
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00
						VA23C2929-056	VA23C2929-057	VA23C2929-058	VA23C2929-059	VA23C2929-060
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		----	78.3	72.2	----	79.0
Moisture	----	E144-H/VA	2.0	%		79.2	----	----	77.4	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		----	<2.0	2.1	----	<2.0
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		<5.0	----	----	<5.0	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		----	<0.40	0.58	----	<0.40
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		<1.0	----	----	<1.0	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		<0.010	----	----	<0.010	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		----	<0.010	<0.010	----	<0.010
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	<0.0020	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	----	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		----	0.116	0.176	----	0.182
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		0.312	----	----	0.264	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		----	0.0251	0.0488	----	0.0382
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		0.0647	----	----	0.0598	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		0.976	----	----	0.993	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		----	0.063	0.934	----	0.061
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		0.202	----	----	0.225	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		----	0.014	0.259	----	0.013
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		<0.010	----	----	<0.010	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		----	<0.010	<0.010	----	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	<0.0020	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	----	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		<0.010	----	----	<0.010	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		----	<0.010	<0.010	----	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	<0.0020	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	----	<0.0020
Boron	7440-42-8	E472/VA	1.0	mg/kg		<1.0	----	----	<1.0	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		----	<1.0	<1.0	----	<1.0

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_6 liver*	TL-01_gn_20230907_MW_6 muscle*	TL-01_gn_20230907_MW_6 carcass*	TL-01_gn_20230907_MW_7 liver*	TL-01_gn_20230907_MW_7 muscle*
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00
						VA23C2929-056	VA23C2929-057	VA23C2929-058	VA23C2929-059	VA23C2929-060
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		<0.20	----	----	<0.20	----
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		----	<0.20	<0.20	----	<0.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		----	<0.0050	<0.0050	----	<0.0050
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		0.026	----	----	0.041	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		----	<0.0010	0.0013	----	<0.0010
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		0.0054	----	----	0.0094	----
Calcium	7440-70-2	E472/VA	20	mg/kg		434	----	----	319	----
Calcium	7440-70-2	E440/VA	20	mg/kg		----	1100	21400	----	1120
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		90.0	----	----	72.3	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		----	239	5950	----	235
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		0.0123	----	----	0.0113	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		----	0.0138	0.0084	----	0.0186
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		0.0025	----	----	0.0026	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		----	0.0030	0.0023	----	0.0039
Chromium	7440-47-3	E440/VA	0.050	mg/kg		----	0.121	<0.050	----	<0.050
Chromium	7440-47-3	E472/VA	0.20	mg/kg		0.50	----	----	0.21	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		----	0.026	<0.010	----	<0.010
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		0.103	----	----	0.047	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		0.143	----	----	0.091	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		----	<0.020	0.048	----	<0.020
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		0.0297	----	----	0.0206	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	0.0134	----	<0.0040
Copper	7440-50-8	E440/VA	0.10	mg/kg		----	0.97	1.64	----	0.92
Copper	7440-50-8	E472/VA	0.20	mg/kg		7.11	----	----	6.18	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		----	0.210	0.454	----	0.192
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		1.48	----	----	1.40	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		----	11.6	41.8	----	12.5
Iron	7439-89-6	E472/VA	5.0	mg/kg		252	----	----	319	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		----	2.52	11.6	----	2.63

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_6 liver*	TL-01_gn_20230907_MW_6 muscle*	TL-01_gn_20230907_MW_6 carcass*	TL-01_gn_20230907_MW_7 liver*	TL-01_gn_20230907_MW_7 muscle*
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00
						VA23C2929-056	VA23C2929-057	VA23C2929-058	VA23C2929-059	VA23C2929-060
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		52.3	----	----	72.3	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		----	<0.020	<0.020	----	<0.020
Lead	7439-92-1	E472/VA	0.050	mg/kg		<0.050	----	----	<0.050	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	<0.0040	----	<0.0040
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		<0.010	----	----	<0.010	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		<0.50	----	----	<0.50	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		----	<0.50	<0.50	----	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		<0.10	----	----	<0.10	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		----	<0.10	<0.10	----	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		1180	----	----	702	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		----	1290	1260	----	1500
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		245	----	----	159	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		----	280	350	----	316
Manganese	7439-96-5	E472/VA	0.050	mg/kg		5.88	----	----	3.98	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		----	0.633	11.0	----	0.813
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		1.22	----	----	0.901	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		----	0.137	3.06	----	0.171
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		0.301	----	----	0.484	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		----	0.193	0.135	----	0.404
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		0.0624	----	----	0.110	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		----	0.0417	0.0374	----	0.0850
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		----	0.022	<0.020	----	<0.020
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		0.703	----	----	0.705	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		----	0.0048	0.0055	----	<0.0040
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		0.146	----	----	0.160	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		0.24	----	----	<0.20	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		----	<0.20	<0.20	----	<0.20
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		0.051	----	----	<0.040	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		----	<0.040	<0.040	----	<0.040

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_6 liver*	TL-01_gn_20230907_MW_6 muscle*	TL-01_gn_20230907_MW_6 carcass*	TL-01_gn_20230907_MW_7 liver*	TL-01_gn_20230907_MW_7 muscle*
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00
						VA23C2929-056	VA23C2929-057	VA23C2929-058	VA23C2929-059	VA23C2929-060
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		16300	----	----	14900	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		----	11500	20200	----	12200
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		3380	----	----	3380	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		----	2480	5600	----	2570
Potassium	7440-09-7	E472/VA	20	mg/kg		16700	----	----	15700	----
Potassium	7440-09-7	E440/VA	20	mg/kg		----	20200	12800	----	21300
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		3470	----	----	3550	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		----	4380	3560	----	4480
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		7.71	----	----	8.20	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		----	7.20	4.83	----	9.17
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		1.60	----	----	1.86	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		----	1.56	1.34	----	1.93
Selenium	7782-49-2	E440/VA	0.050	mg/kg		----	0.666	0.721	----	0.612
Selenium	7782-49-2	E472/VA	0.10	mg/kg		2.70	----	----	3.46	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		----	0.144	0.200	----	0.128
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		0.559	----	----	0.783	----
Sodium	7440-23-5	E472/VA	20	mg/kg		3820	----	----	3880	----
Sodium	7440-23-5	E440/VA	20	mg/kg		----	2070	2650	----	1940
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		793	----	----	879	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		----	448	734	----	408
Strontium	7440-24-6	E440/VA	0.050	mg/kg		----	0.741	19.6	----	0.789
Strontium	7440-24-6	E472/VA	0.10	mg/kg		0.32	----	----	0.35	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		----	0.160	5.44	----	0.166
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		0.066	----	----	0.079	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		<0.020	----	----	<0.020	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		----	<0.020	<0.020	----	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		<0.0040	----	----	<0.0040	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	<0.0040	----	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		0.0154	----	----	0.0176	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_6 liver*	TL-01_gn_20230907_MW_6 muscle*	TL-01_gn_20230907_MW_6 carcass*	TL-01_gn_20230907_MW_7 liver*	TL-01_gn_20230907_MW_7 muscle*
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00
						VA23C2929-056	VA23C2929-057	VA23C2929-058	VA23C2929-059	VA23C2929-060
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		----	0.0028	0.0030	----	0.0045
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		0.00319	----	----	0.00399	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		----	0.00060	0.00082	----	0.00095
Tin	7440-31-5	E472/VA	0.10	mg/kg		<0.10	----	----	<0.10	----
Tin	7440-31-5	E440/VA	0.10	mg/kg		----	0.12	<0.10	----	0.17
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		<0.020	----	----	<0.020	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		----	0.025	<0.020	----	0.037
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		0.0034	----	----	0.0060	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		----	<0.0020	0.0068	----	<0.0020
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		0.00070	----	----	0.00136	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		----	<0.00040	0.00190	----	<0.00040
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		<0.10	----	----	0.20	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		----	<0.10	<0.10	----	<0.10
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		<0.020	----	----	0.045	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		----	<0.020	0.024	----	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg		----	20.5	62.1	----	17.0
Zinc	7440-66-6	E472/VA	1.0	mg/kg		98.2	----	----	138	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		----	4.44	17.2	----	3.56
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		20.4	----	----	31.4	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		<0.20	----	----	<0.20	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		----	<0.20	<0.20	----	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	<0.040	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		----	<0.040	<0.040	----	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_7 carcass*	TL-01_gn_20230907_MW_8 liver*	TL-01_gn_20230907_MW_8 muscle*	TL-01_gn_20230907_MW_8 carcass*	TL-01_ht_20230825_KO_1_1 liver *
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	25-Aug-2023 00:00
						VA23C2929-061	VA23C2929-062	VA23C2929-063	VA23C2929-064	VA23C2929-068
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		69.1	----	78.2	73.4	----
Moisture	----	E144-H/VA	2.0	%		----	73.2	----	----	77.0
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		27.0	----	<2.0	27.0	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	<5.0	----	----	<5.0
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		8.34	----	<0.40	7.17	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	<1.0	----	----	<1.0
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	<0.010	----	----	<0.010
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	<0.0020
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.193	----	0.129	0.388	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	0.212	----	----	0.276
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0596	----	0.0282	0.103	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	0.0567	----	----	0.0636
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	0.685	----	----	0.644
Barium	7440-39-3	E440/VA	0.050	mg/kg		0.879	----	0.088	4.76	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	0.184	----	----	0.148
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		0.271	----	0.019	1.27	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	<0.010	----	----	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	<0.0020
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	<0.010	----	----	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	<0.0020
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	<1.0	----	----	<1.0
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	----	<1.0	<1.0	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_7 carcass*	TL-01_gn_20230907_MW_8 liver*	TL-01_gn_20230907_MW_8 muscle*	TL-01_gn_20230907_MW_8 carcass*	TL-01_ht_20230825_KO_1_1 liver *
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	25-Aug-2023 00:00
						VA23C2929-061	VA23C2929-062	VA23C2929-063	VA23C2929-064	VA23C2929-068
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	<0.20	----	----	<0.20
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	----	<0.20	<0.20	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0072	----	<0.0050	0.0148	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	0.060	----	----	0.063
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0022	----	<0.0010	0.0039	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	0.0161	----	----	0.0145
Calcium	7440-70-2	E472/VA	20	mg/kg		----	721	----	----	318
Calcium	7440-70-2	E440/VA	20	mg/kg		19400	----	1420	69600	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	193	----	----	73.3
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		6000	----	310	18500	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	0.0111	----	----	<0.0050
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0105	----	0.0171	0.0119	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	0.0030	----	----	0.0011
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0032	----	0.0037	0.0032	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.067	----	<0.050	0.082	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	<0.20	----	----	<0.20
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.021	----	<0.010	0.022	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	<0.040
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	0.122	----	----	0.066
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.040	----	0.028	0.093	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	0.0326	----	----	0.0152
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0124	----	0.0061	0.0246	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		1.50	----	0.86	3.51	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	8.67	----	----	218
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.462	----	0.187	0.933	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	2.32	----	----	50.2
Iron	7439-89-6	E440/VA	3.0	mg/kg		138	----	16.0	443	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	255	----	----	1580
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		42.6	----	3.49	118	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_7 carcass*	TL-01_gn_20230907_MW_8 liver*	TL-01_gn_20230907_MW_8 muscle*	TL-01_gn_20230907_MW_8 carcass*	TL-01_ht_20230825_KO_1_1 liver *
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	25-Aug-2023 00:00
						VA23C2929-061	VA23C2929-062	VA23C2929-063	VA23C2929-064	VA23C2929-068
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	68.5	----	----	363
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	----	<0.020	0.043	----
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	<0.050	----	----	<0.050
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0059	----	<0.0040	0.0115	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	<0.010	----	----	<0.010
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	<0.50	----	----	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	----	<0.50	<0.50	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	<0.10	----	----	<0.10
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	----	<0.10	<0.10	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	1200	----	----	791
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1050	----	1350	1700	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	322	----	----	182
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		325	----	294	451	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	6.01	----	----	3.32
Manganese	7439-96-5	E440/VA	0.050	mg/kg		7.33	----	0.807	28.9	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	1.61	----	----	0.764
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		2.26	----	0.176	7.68	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	0.724	----	----	0.418
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.225	----	0.814	0.562	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	0.194	----	----	0.0963
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0694	----	0.178	0.149	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.022	----	<0.020	0.052	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	0.648	----	----	0.751
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0067	----	<0.0040	0.0139	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	0.174	----	----	0.173
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	<0.20	----	----	<0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	----	<0.20	<0.20	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	<0.040
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	<0.040	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_7 carcass*	TL-01_gn_20230907_MW_8 liver*	TL-01_gn_20230907_MW_8 muscle*	TL-01_gn_20230907_MW_8 carcass*	TL-01_ht_20230825_KO_1_1 liver *
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	25-Aug-2023 00:00
						VA23C2929-061	VA23C2929-062	VA23C2929-063	VA23C2929-064	VA23C2929-068
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	16700	----	----	14600
Phosphorus	7723-14-0	E440/VA	10	mg/kg		17900	----	11700	34700	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	4470	----	----	3350
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		5530	----	2550	9220	----
Potassium	7440-09-7	E472/VA	20	mg/kg		----	12400	----	----	15000
Potassium	7440-09-7	E440/VA	20	mg/kg		11100	----	19300	11800	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	3340	----	----	3460
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3430	----	4210	3130	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	6.07	----	----	8.74
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		5.07	----	6.88	4.47	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	1.63	----	----	2.01
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		1.56	----	1.50	1.19	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.777	----	0.948	1.28	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	3.23	----	----	4.71
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.240	----	0.207	0.340	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	0.866	----	----	1.08
Sodium	7440-23-5	E472/VA	20	mg/kg		----	3330	----	----	5320
Sodium	7440-23-5	E440/VA	20	mg/kg		2440	----	2020	3250	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	893	----	----	1220
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		754	----	441	865	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		17.6	----	1.13	78.4	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	0.97	----	----	0.40
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		5.44	----	0.247	20.8	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	0.260	----	----	0.092
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	<0.020	----	----	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	----	<0.020	<0.020	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	<0.0040	----	----	<0.0040
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	----	<0.0040	<0.0040	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	0.0099	----	----	0.0259

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_gn_20230907_MW_7 carcass*	TL-01_gn_20230907_MW_8 liver*	TL-01_gn_20230907_MW_8 muscle*	TL-01_gn_20230907_MW_8 carcass*	TL-01_ht_20230825_KO_1_1 liver *
					Client sampling date / time	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	07-Sep-2023 00:00	25-Aug-2023 00:00
						VA23C2929-061	VA23C2929-062	VA23C2929-063	VA23C2929-064	VA23C2929-068
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0045	----	0.0045	0.0061	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	0.00265	----	----	0.00596
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00138	----	0.00098	0.00161	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	<0.10	----	----	<0.10
Tin	7440-31-5	E440/VA	0.10	mg/kg		<0.10	----	0.14	<0.10	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	<0.020	----	----	<0.020
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		<0.020	----	0.031	<0.020	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	0.0312	----	----	<0.0020
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0092	----	<0.0020	0.117	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	0.00837	----	----	<0.00040
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.00285	----	<0.00040	0.0311	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	0.14	----	----	0.12
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		0.27	----	<0.10	0.65	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	0.038	----	----	0.029
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.083	----	<0.020	0.174	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		59.1	----	19.3	71.0	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	100	----	----	438
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		18.2	----	4.21	18.8	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	26.9	----	----	101
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	<0.20	----	----	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	----	<0.20	<0.20	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	<0.040
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	<0.040	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_1 muscle*	TL-01_ht_20230825_KO_1_1 carcass*	TL-01_ht_20230825_KO_1_2 liver*	TL-01_ht_20230825_KO_1_2 muscle*	TL-01_ht_20230825_KO_1_2 carcass*
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00
						VA23C2929-069	VA23C2929-070	VA23C2929-071	VA23C2929-072	VA23C2929-073
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		78.5	75.7	----	78.8	75.7
Moisture	----	E144-H/VA	2.0	%		----	----	76.5	----	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		11.8	70.4	----	<2.0	8.9
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	<5.0	----	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		2.54	17.1	----	<0.40	2.16
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	<1.0	----	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	<0.010
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.199	0.283	----	0.132	0.212
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	0.233	----	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0428	0.0688	----	0.0279	0.0516
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	0.0548	----	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	0.621	----	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		0.098	0.901	----	<0.050	0.236
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	0.146	----	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		0.021	0.219	----	<0.010	0.057
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	<0.0020
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	<1.0	----	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	<1.0	----	<1.0	<1.0

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_1 muscle*	TL-01_ht_20230825_KO_1_1 carcass*	TL-01_ht_20230825_KO_1_2 liver*	TL-01_ht_20230825_KO_1_2 muscle*	TL-01_ht_20230825_KO_1_2 carcass*
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00
						VA23C2929-069	VA23C2929-070	VA23C2929-071	VA23C2929-072	VA23C2929-073
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	<0.20	----	----
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	<0.20	----	<0.20	<0.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		<0.0050	<0.0050	----	<0.0050	0.0102
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	0.066	----	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		<0.0010	0.0012	----	<0.0010	0.0025
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	0.0156	----	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	395	----	----
Calcium	7440-70-2	E440/VA	20	mg/kg		574	4290	----	538	3260
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	93.0	----	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		123	1040	----	114	793
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	0.0060	----	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0112	0.0094	----	0.0094	0.0063
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	0.0014	----	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0024	0.0023	----	0.0020	0.0015
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.233	0.302	----	0.070	0.064
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.050	0.073	----	0.015	0.015
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	0.104	----	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.030	0.086	----	0.021	0.053
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	0.0246	----	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0063	0.0210	----	0.0044	0.0130
Copper	7440-50-8	E440/VA	0.10	mg/kg		3.19	3.44	----	2.50	6.17
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	22.7	----	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.685	0.835	----	0.530	1.50
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	5.34	----	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		50.3	177	----	23.4	74.3
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	2360	----	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		10.8	43.1	----	4.96	18.0

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_1 muscle*	TL-01_ht_20230825_KO_1_1 carcass*	TL-01_ht_20230825_KO_1_2 liver*	TL-01_ht_20230825_KO_1_2 muscle*	TL-01_ht_20230825_KO_1_2 carcass*
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00
						VA23C2929-069	VA23C2929-070	VA23C2929-071	VA23C2929-072	VA23C2929-073
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	556	----	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	0.033	----	<0.020	0.090
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	<0.050	----	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0081	----	<0.0040	0.0220
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	<0.010	----	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	<0.50	----	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	----	<0.50	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	<0.10	----	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	----	<0.10	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	817	----	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1020	770	----	1250	901
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	192	----	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		219	187	----	265	219
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	4.94	----	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		0.657	4.24	----	0.460	2.12
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	1.16	----	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		0.141	1.03	----	0.097	0.515
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	0.462	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.399	0.312	----	0.425	0.286
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	0.109	----	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0857	0.0758	----	0.0900	0.0695
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.023	0.034	----	0.022	0.038
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	0.778	----	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0050	0.0083	----	0.0046	0.0092
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	0.183	----	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	0.21	----	<0.20	<0.20
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	0.050	----	<0.040	<0.040

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_1 muscle*	TL-01_ht_20230825_KO_1_1 carcass*	TL-01_ht_20230825_KO_1_2 liver*	TL-01_ht_20230825_KO_1_2 muscle*	TL-01_ht_20230825_KO_1_2 carcass*
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00
						VA23C2929-069	VA23C2929-070	VA23C2929-071	VA23C2929-072	VA23C2929-073
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	15400	----	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		10300	11200	----	12000	10200
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	3630	----	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		2220	2730	----	2550	2470
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	14000	----	----
Potassium	7440-09-7	E440/VA	20	mg/kg		16900	11600	----	20000	12600
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	3290	----	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3630	2820	----	4240	3050
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	9.96	----	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		8.62	6.31	----	11.9	7.96
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	2.34	----	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		1.85	1.53	----	2.52	1.93
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.646	0.705	----	0.839	1.37
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	4.29	----	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.139	0.171	----	0.178	0.332
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	1.01	----	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	5640	----	----
Sodium	7440-23-5	E440/VA	20	mg/kg		3240	4410	----	2600	3850
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	1330	----	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		694	1070	----	550	934
Strontium	7440-24-6	E440/VA	0.050	mg/kg		0.525	5.60	----	0.432	3.86
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	0.49	----	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		0.113	1.36	----	0.091	0.937
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	0.115	----	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	<0.020	----	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	----	<0.020	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	<0.0040	----	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	----	<0.0040	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	0.0214	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_1 muscle*	TL-01_ht_20230825_KO_1_1 carcass*	TL-01_ht_20230825_KO_1_2 liver*	TL-01_ht_20230825_KO_1_2 muscle*	TL-01_ht_20230825_KO_1_2 carcass*
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00
						VA23C2929-069	VA23C2929-070	VA23C2929-071	VA23C2929-072	VA23C2929-073
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0058	0.0042	----	0.0071	0.0042
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	----	0.00504	----	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00125	0.00102	----	0.00151	0.00103
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	0.50	----	----
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.24	<0.10	----	0.30	<0.10
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	0.119	----	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.050	<0.020	----	0.064	<0.020
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	<0.0020	----	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	0.0042	----	<0.0020	<0.0020
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	<0.00040	----	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	0.00102	----	<0.00040	<0.00040
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	0.14	----	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	0.29	----	<0.10	<0.10
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	0.033	----	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	0.070	----	<0.020	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg		31.4	196	----	28.1	210
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	354	----	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		6.74	47.5	----	5.94	51.1
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	83.4	----	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	----	<0.20	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_3 liver*	TL-01_ht_20230825_KO_1_3 muscle*	TL-01_ht_20230825_KO_1_3 carcass*	TL-01_ht_20230825_KO_1_4 liver*	TL-01_ht_20230825_KO_1_4 muscle*
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00
						VA23C2929-074	VA23C2929-075	VA23C2929-076	VA23C2929-077	VA23C2929-078
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		----	78.7	77.2	----	79.6
Moisture	----	E144-H/VA	2.0	%		80.3	----	----	78.7	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		----	4.4	19.9	----	2.1
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		<5.0	----	----	<5.0	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		----	0.95	4.53	----	0.44
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		<1.0	----	----	<1.0	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		<0.010	----	----	<0.010	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		----	<0.010	<0.010	----	<0.010
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	<0.0020	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	----	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		----	0.244	0.296	----	0.183
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		0.304	----	----	0.295	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		----	0.0518	0.0673	----	0.0372
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		0.0600	----	----	0.0629	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		0.592	----	----	0.575	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		----	0.117	0.582	----	<0.050
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		0.116	----	----	0.122	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		----	0.025	0.132	----	<0.010
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		<0.010	----	----	<0.010	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		----	<0.010	<0.010	----	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	<0.0020	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	----	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		<0.010	----	----	<0.010	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		----	<0.010	<0.010	----	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	<0.0020	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	----	<0.0020
Boron	7440-42-8	E472/VA	1.0	mg/kg		<1.0	----	----	<1.0	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		----	<1.0	<1.0	----	<1.0

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_3 liver*	TL-01_ht_20230825_KO_1_3 muscle*	TL-01_ht_20230825_KO_1_3 carcass*	TL-01_ht_20230825_KO_1_4 liver*	TL-01_ht_20230825_KO_1_4 muscle*
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00
						VA23C2929-074	VA23C2929-075	VA23C2929-076	VA23C2929-077	VA23C2929-078
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		<0.20	----	----	<0.20	----
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		----	<0.20	<0.20	----	<0.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		----	<0.0050	<0.0050	----	<0.0050
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		0.057	----	----	0.046	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		----	<0.0010	<0.0010	----	<0.0010
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		0.0112	----	----	0.0099	----
Calcium	7440-70-2	E472/VA	20	mg/kg		366	----	----	361	----
Calcium	7440-70-2	E440/VA	20	mg/kg		----	487	15200	----	700
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		72.0	----	----	76.9	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		----	104	3460	----	142
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		0.0063	----	----	0.0062	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		----	0.0098	0.0084	----	0.0105
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		0.0012	----	----	0.0013	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		----	0.0021	0.0019	----	0.0021
Chromium	7440-47-3	E440/VA	0.050	mg/kg		----	0.067	0.118	----	0.110
Chromium	7440-47-3	E472/VA	0.20	mg/kg		<0.20	----	----	<0.20	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		----	0.014	0.027	----	0.022
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	<0.040	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		0.061	----	----	0.068	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		----	0.025	0.043	----	<0.020
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		0.0121	----	----	0.0146	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		----	0.0052	0.0098	----	<0.0040
Copper	7440-50-8	E440/VA	0.10	mg/kg		----	3.94	3.03	----	3.22
Copper	7440-50-8	E472/VA	0.20	mg/kg		116	----	----	136	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		----	0.839	0.690	----	0.656
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		22.8	----	----	28.9	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		----	34.8	92.1	----	25.4
Iron	7439-89-6	E472/VA	5.0	mg/kg		1390	----	----	865	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		----	7.39	20.9	----	5.17

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_3 liver*	TL-01_ht_20230825_KO_1_3 muscle*	TL-01_ht_20230825_KO_1_3 carcass*	TL-01_ht_20230825_KO_1_4 liver*	TL-01_ht_20230825_KO_1_4 muscle*
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00
						VA23C2929-074	VA23C2929-075	VA23C2929-076	VA23C2929-077	VA23C2929-078
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		274	----	----	184	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		----	<0.020	<0.020	----	<0.020
Lead	7439-92-1	E472/VA	0.050	mg/kg		<0.050	----	----	<0.050	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	<0.0040	----	<0.0040
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		<0.010	----	----	<0.010	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		<0.50	----	----	<0.50	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		----	<0.50	<0.50	----	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		<0.10	----	----	<0.10	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		----	<0.10	<0.10	----	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		734	----	----	731	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		----	1130	1060	----	1230
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		144	----	----	156	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		----	241	241	----	250
Manganese	7439-96-5	E472/VA	0.050	mg/kg		3.89	----	----	3.59	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		----	1.01	4.40	----	0.431
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		0.767	----	----	0.766	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		----	0.215	1.00	----	0.088
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		0.352	----	----	0.331	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		----	0.277	0.207	----	0.263
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		0.0693	----	----	0.0706	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		----	0.0589	0.0471	----	0.0536
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		----	0.027	0.036	----	0.030
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		0.588	----	----	0.655	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		----	0.0057	0.0081	----	0.0062
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		0.116	----	----	0.140	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		<0.20	----	----	<0.20	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		----	<0.20	<0.20	----	<0.20
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	<0.040	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		----	<0.040	<0.040	----	<0.040

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_3 liver*	TL-01_ht_20230825_KO_1_3 muscle*	TL-01_ht_20230825_KO_1_3 carcass*	TL-01_ht_20230825_KO_1_4 liver*	TL-01_ht_20230825_KO_1_4 muscle*
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00
						VA23C2929-074	VA23C2929-075	VA23C2929-076	VA23C2929-077	VA23C2929-078
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		14300	----	----	14000	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		----	11700	19800	----	12200
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		2820	----	----	2990	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		----	2480	4500	----	2480
Potassium	7440-09-7	E472/VA	20	mg/kg		15800	----	----	14300	----
Potassium	7440-09-7	E440/VA	20	mg/kg		----	19300	14000	----	20800
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		3120	----	----	3060	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		----	4110	3180	----	4230
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		11.9	----	----	10.8	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		----	11.7	9.19	----	12.8
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		2.34	----	----	2.30	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		----	2.48	2.09	----	2.60
Selenium	7782-49-2	E440/VA	0.050	mg/kg		----	0.672	0.774	----	0.668
Selenium	7782-49-2	E472/VA	0.10	mg/kg		5.34	----	----	5.43	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		----	0.143	0.176	----	0.136
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		1.05	----	----	1.16	----
Sodium	7440-23-5	E472/VA	20	mg/kg		6200	----	----	6020	----
Sodium	7440-23-5	E440/VA	20	mg/kg		----	2480	4320	----	3470
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		1220	----	----	1280	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		----	526	983	----	707
Strontium	7440-24-6	E440/VA	0.050	mg/kg		----	0.437	16.9	----	0.592
Strontium	7440-24-6	E472/VA	0.10	mg/kg		0.42	----	----	0.44	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		----	0.093	3.85	----	0.120
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		0.082	----	----	0.094	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		<0.020	----	----	<0.020	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		----	<0.020	<0.020	----	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		<0.0040	----	----	<0.0040	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	<0.0040	----	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		0.0208	----	----	0.0265	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_3 liver*	TL-01_ht_20230825_KO_1_3 muscle*	TL-01_ht_20230825_KO_1_3 carcass*	TL-01_ht_20230825_KO_1_4 liver*	TL-01_ht_20230825_KO_1_4 muscle*
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00
						VA23C2929-074	VA23C2929-075	VA23C2929-076	VA23C2929-077	VA23C2929-078
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		----	0.0072	0.0060	----	0.0066
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		0.00410	----	----	0.00566	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		----	0.00154	0.00137	----	0.00134
Tin	7440-31-5	E472/VA	0.10	mg/kg		0.85	----	----	0.77	----
Tin	7440-31-5	E440/VA	0.10	mg/kg		----	0.35	<0.10	----	0.32
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		0.167	----	----	0.164	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		----	0.074	<0.020	----	0.066
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		<0.0020	----	----	<0.0020	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		----	<0.0020	<0.0020	----	<0.0020
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		<0.00040	----	----	<0.00040	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		----	<0.00040	<0.00040	----	<0.00040
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		<0.10	----	----	<0.10	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		----	<0.10	0.11	----	<0.10
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		<0.020	----	----	<0.020	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		----	<0.020	0.025	----	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg		----	22.7	129	----	28.2
Zinc	7440-66-6	E472/VA	1.0	mg/kg		363	----	----	341	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		----	4.83	29.2	----	5.74
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		71.6	----	----	72.7	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		<0.20	----	----	<0.20	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		----	<0.20	<0.20	----	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	<0.040	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		----	<0.040	<0.040	----	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_4 carcass*	TL-01_ht_20230825_KO_1_5 liver *	TL-01_ht_20230825_KO_1_5 muscle*	TL-01_ht_20230825_KO_1_5 carcass*	TL-01_ht_20230825_KO_1_6 liver*
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00
						VA23C2929-079	VA23C2929-080	VA23C2929-081	VA23C2929-082	VA23C2929-083
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		74.8	----	78.1	76.8	----
Moisture	----	E144-H/VA	2.0	%		----	80.0	----	----	76.4
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		8.7	----	3.1	38.2	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	<5.0	----	----	<5.0
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		2.19	----	0.68	8.84	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	<1.0	----	----	<1.0
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	<0.010	----	----	<0.010
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	----	0.012	<0.010	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	<0.0020
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		0.0025	----	0.0026	<0.0020	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.309	----	0.130	0.197	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	0.228	----	----	0.152
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0780	----	0.0285	0.0457	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	0.0458	----	----	0.0359
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	0.634	----	----	0.860
Barium	7440-39-3	E440/VA	0.050	mg/kg		0.337	----	0.116	0.639	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	0.127	----	----	0.202
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		0.085	----	0.025	0.148	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	<0.010	----	----	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	<0.0020
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	<0.010	----	----	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	<0.0020
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	<1.0	----	----	<1.0
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	----	<1.0	<1.0	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_4 carcass*	TL-01_ht_20230825_KO_1_5 liver *	TL-01_ht_20230825_KO_1_5 muscle*	TL-01_ht_20230825_KO_1_5 carcass*	TL-01_ht_20230825_KO_1_6 liver*
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00
						VA23C2929-079	VA23C2929-080	VA23C2929-081	VA23C2929-082	VA23C2929-083
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	<0.20	----	----	<0.20
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	----	<0.20	<0.20	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		<0.0050	----	<0.0050	0.0072	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	0.081	----	----	0.054
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0012	----	<0.0010	0.0017	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	0.0163	----	----	0.0128
Calcium	7440-70-2	E472/VA	20	mg/kg		----	512	----	----	367
Calcium	7440-70-2	E440/VA	20	mg/kg		6900	----	1150	12300	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	103	----	----	86.4
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		1740	----	251	2860	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	0.0059	----	----	0.0052
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0065	----	0.0097	0.0074	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	0.0012	----	----	0.0012
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0016	----	0.0021	0.0017	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.056	----	0.116	0.107	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	<0.20	----	----	<0.20
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.014	----	0.025	0.025	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	<0.040
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	0.070	----	----	0.068
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.025	----	<0.020	0.054	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	0.0140	----	----	0.0161
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0063	----	<0.0040	0.0125	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		2.99	----	2.69	5.44	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	29.1	----	----	29.7
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.755	----	0.589	1.26	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	5.83	----	----	7.00
Iron	7439-89-6	E440/VA	3.0	mg/kg		60.4	----	22.9	113	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	2200	----	----	1250
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		15.2	----	5.01	26.3	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_4 carcass*	TL-01_ht_20230825_KO_1_5 liver *	TL-01_ht_20230825_KO_1_5 muscle*	TL-01_ht_20230825_KO_1_5 carcass*	TL-01_ht_20230825_KO_1_6 liver*
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00
						VA23C2929-079	VA23C2929-080	VA23C2929-081	VA23C2929-082	VA23C2929-083
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	442	----	----	294
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	----	<0.020	<0.020	----
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	<0.050	----	----	<0.050
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		<0.0040	----	<0.0040	<0.0040	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	<0.010	----	----	<0.010
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	<0.50	----	----	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	----	<0.50	<0.50	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	<0.10	----	----	<0.10
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	----	<0.10	<0.10	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	804	----	----	842
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		875	----	1150	1060	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	161	----	----	198
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		221	----	252	247	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	4.80	----	----	4.28
Manganese	7439-96-5	E440/VA	0.050	mg/kg		2.15	----	0.553	4.85	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	0.963	----	----	1.01
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		0.543	----	0.121	1.12	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	0.474	----	----	0.337
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.183	----	0.377	0.308	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	0.0950	----	----	0.0795
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0462	----	0.0825	0.0713	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.031	----	0.028	0.038	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	0.616	----	----	0.435
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0078	----	0.0062	0.0089	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	0.124	----	----	0.102
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	<0.20	----	----	<0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	----	<0.20	<0.20	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	<0.040
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	<0.040	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_4 carcass*	TL-01_ht_20230825_KO_1_5 liver *	TL-01_ht_20230825_KO_1_5 muscle*	TL-01_ht_20230825_KO_1_5 carcass*	TL-01_ht_20230825_KO_1_6 liver*
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00
						VA23C2929-079	VA23C2929-080	VA23C2929-081	VA23C2929-082	VA23C2929-083
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	14400	----	----	15300
Phosphorus	7723-14-0	E440/VA	10	mg/kg		13200	----	12200	15400	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	2880	----	----	3600
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		3340	----	2660	3560	----
Potassium	7440-09-7	E472/VA	20	mg/kg		----	14200	----	----	14300
Potassium	7440-09-7	E440/VA	20	mg/kg		12400	----	19800	13100	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	2850	----	----	3360
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3140	----	4340	3040	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	8.76	----	----	9.37
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		8.04	----	10.9	7.41	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	1.76	----	----	2.21
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		2.03	----	2.38	1.72	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.701	----	0.733	1.03	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	3.58	----	----	3.45
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.177	----	0.160	0.240	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	0.717	----	----	0.812
Sodium	7440-23-5	E472/VA	20	mg/kg		----	6360	----	----	4580
Sodium	7440-23-5	E440/VA	20	mg/kg		4100	----	2580	4150	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	1270	----	----	1080
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		1030	----	564	963	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		8.59	----	1.11	13.8	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	0.69	----	----	0.38
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		2.17	----	0.244	3.19	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	0.139	----	----	0.090
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	<0.020	----	----	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	----	<0.020	<0.020	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	<0.0040	----	----	<0.0040
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	----	<0.0040	<0.0040	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	0.0333	----	----	0.0228

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_4 carcass*	TL-01_ht_20230825_KO_1_5 liver *	TL-01_ht_20230825_KO_1_5 muscle*	TL-01_ht_20230825_KO_1_5 carcass*	TL-01_ht_20230825_KO_1_6 liver*
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00
						VA23C2929-079	VA23C2929-080	VA23C2929-081	VA23C2929-082	VA23C2929-083
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0045	----	0.0067	0.0049	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	0.00668	----	----	0.00537
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00113	----	0.00147	0.00114	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	0.76	----	----	0.55
Tin	7440-31-5	E440/VA	0.10	mg/kg		<0.10	----	0.46	<0.10	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	0.153	----	----	0.129
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		<0.020	----	0.100	<0.020	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	<0.0020	----	----	<0.0020
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	----	<0.0020	<0.0020	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	<0.00040	----	----	<0.00040
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	----	<0.00040	<0.00040	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	0.12	----	----	0.12
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	----	<0.10	0.15	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	0.024	----	----	0.029
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	----	<0.020	0.035	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		124	----	36.1	178	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	350	----	----	255
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		31.3	----	7.90	41.2	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	70.2	----	----	60.1
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	<0.20	----	----	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	----	<0.20	<0.20	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	<0.040
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	<0.040	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_6 muscle*	TL-01_ht_20230825_KO_1_6 carcass*	TL-01_ht_20230825_KO_1_7 liver*	TL-01_ht_20230825_KO_1_7 muscle*	TL-01_ht_20230825_KO_1_7 carcass*
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00
						VA23C2929-084	VA23C2929-085	VA23C2929-086	VA23C2929-087	VA23C2929-088
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		79.0	74.3	----	80.2	80.1
Moisture	----	E144-H/VA	2.0	%		----	----	78.6	----	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		<2.0	4.6	----	<2.0	74.8
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	<5.0	----	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		<0.40	1.18	----	<0.40	14.9
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	<1.0	----	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	<0.010
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.112	0.289	----	0.118	0.251
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	0.309	----	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0235	0.0742	----	0.0232	0.0499
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	0.0659	----	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	0.663	----	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		0.063	0.640	----	0.130	3.28
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	0.142	----	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		0.013	0.164	----	0.026	0.652
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	<0.0020
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	<1.0	----	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	<1.0	----	<1.0	<1.0

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_6 muscle*	TL-01_ht_20230825_KO_1_6 carcass*	TL-01_ht_20230825_KO_1_7 liver*	TL-01_ht_20230825_KO_1_7 muscle*	TL-01_ht_20230825_KO_1_7 carcass*
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00
						VA23C2929-084	VA23C2929-085	VA23C2929-086	VA23C2929-087	VA23C2929-088
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	<0.20	----	----
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	<0.20	----	<0.20	<0.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		<0.0050	0.0073	----	<0.0050	0.0227
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	0.342	----	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		<0.0010	0.0019	----	<0.0010	0.0045
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	0.0731	----	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	628	----	----
Calcium	7440-70-2	E440/VA	20	mg/kg		674	10700	----	714	19600
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	134	----	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		142	2740	----	141	3910
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	0.0254	----	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0110	0.0059	----	0.0411	0.0317
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	0.0054	----	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0023	0.0015	----	0.0081	0.0063
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.077	0.065	----	<0.050	0.160
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.016	0.017	----	<0.010	0.032
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	0.060	----	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		<0.020	0.046	----	0.022	0.089
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	0.0129	----	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0117	----	0.0043	0.0178
Copper	7440-50-8	E440/VA	0.10	mg/kg		1.79	9.57	----	2.53	3.52
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	160	----	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.376	2.46	----	0.501	0.700
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	34.2	----	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		17.3	69.9	----	19.8	160
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	1730	----	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		3.64	17.9	----	3.92	31.8

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_6 muscle*	TL-01_ht_20230825_KO_1_6 carcass*	TL-01_ht_20230825_KO_1_7 liver*	TL-01_ht_20230825_KO_1_7 muscle*	TL-01_ht_20230825_KO_1_7 carcass*
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00
						VA23C2929-084	VA23C2929-085	VA23C2929-086	VA23C2929-087	VA23C2929-088
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	369	----	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	<0.020	----	<0.020	<0.020
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	<0.050	----	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	----	<0.0040	<0.0040
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	<0.010	----	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	<0.50	----	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	----	<0.50	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	<0.10	----	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	----	<0.10	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	771	----	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1160	1100	----	1190	1410
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	165	----	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		244	283	----	235	281
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	3.86	----	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		0.477	5.08	----	0.391	11.6
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	0.824	----	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		0.100	1.30	----	0.077	2.32
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	0.386	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.402	0.216	----	0.419	0.333
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	0.0823	----	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0844	0.0555	----	0.0828	0.0662
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		<0.020	0.038	----	0.035	0.047
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	0.621	----	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0041	0.0097	----	0.0069	0.0094
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	0.133	----	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	----	<0.20	<0.20
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	<0.040	<0.040

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_6 muscle*	TL-01_ht_20230825_KO_1_6 carcass*	TL-01_ht_20230825_KO_1_7 liver*	TL-01_ht_20230825_KO_1_7 muscle*	TL-01_ht_20230825_KO_1_7 carcass*
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00
						VA23C2929-084	VA23C2929-085	VA23C2929-086	VA23C2929-087	VA23C2929-088
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	13700	----	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		12200	15800	----	12800	23300
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	2920	----	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		2570	4050	----	2520	4640
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	15100	----	----
Potassium	7440-09-7	E440/VA	20	mg/kg		20200	11900	----	21100	15900
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	3220	----	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		4250	3050	----	4160	3160
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	13.5	----	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		11.0	6.76	----	16.8	13.1
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	2.88	----	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		2.31	1.74	----	3.31	2.60
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.649	1.22	----	0.700	0.998
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	10.3	----	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.136	0.314	----	0.138	0.199
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	2.20	----	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	5760	----	----
Sodium	7440-23-5	E440/VA	20	mg/kg		2280	3200	----	3550	4990
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	1230	----	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		478	821	----	702	994
Strontium	7440-24-6	E440/VA	0.050	mg/kg		0.546	12.6	----	0.613	22.3
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	1.06	----	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		0.115	3.23	----	0.121	4.45
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	0.226	----	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	<0.020	----	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	----	<0.020	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	<0.0040	----	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	----	<0.0040	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	0.0492	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_6 muscle*	TL-01_ht_20230825_KO_1_6 carcass*	TL-01_ht_20230825_KO_1_7 liver*	TL-01_ht_20230825_KO_1_7 muscle*	TL-01_ht_20230825_KO_1_7 carcass*
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00
						VA23C2929-084	VA23C2929-085	VA23C2929-086	VA23C2929-087	VA23C2929-088
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0061	0.0044	----	0.0141	0.0164
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	----	0.0105	----	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00128	0.00112	----	0.00279	0.00327
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	0.99	----	----
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.45	<0.10	----	0.38	<0.10
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	0.210	----	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.095	<0.020	----	0.075	<0.020
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	<0.0020	----	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	----	<0.0020	0.0029
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	<0.00040	----	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	<0.00040	----	<0.00040	0.00058
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	0.12	----	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	<0.10	----	<0.10	0.22
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	0.026	----	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	<0.020	----	<0.020	0.044
Zinc	7440-66-6	E440/VA	0.50	mg/kg		27.6	204	----	42.6	240
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	452	----	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		5.80	52.2	----	8.42	47.7
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	96.4	----	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	----	<0.20	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_8 liver*	TL-01_ht_20230825_KO_1_8 muscle*	TL-01_ht_20230825_KO_1_8 carcass*	661-01_ef_20230831_RB_1	661-01_ef_20230831_RB_2
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00
						VA23C2929-089	VA23C2929-090	VA23C2929-091	VA23C2929-098	VA23C2929-099
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		----	79.5	75.6	74.7	75.8
Moisture	----	E144-H/VA	2.0	%		78.4	----	----	----	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		----	2.5	6.5	64.3	9.1
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		<5.0	----	----	----	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		----	0.50	1.58	16.3	2.21
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		<1.0	----	----	----	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		<0.010	----	----	----	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		----	<0.010	<0.010	<0.010	<0.010
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	----	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		----	0.136	0.340	0.385	0.192
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		0.362	----	----	----	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		----	0.0280	0.0832	0.0973	0.0464
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		0.0785	----	----	----	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		0.794	----	----	----	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		----	0.098	0.582	1.64	1.82
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		0.172	----	----	----	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		----	0.020	0.142	0.415	0.441
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		<0.010	----	----	----	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		----	<0.010	<0.010	<0.010	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	----	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		<0.010	----	----	----	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		----	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	----	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	<0.0020	<0.0020
Boron	7440-42-8	E472/VA	1.0	mg/kg		1.7	----	----	----	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		----	<1.0	<1.0	<1.0	<1.0

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_8 liver*	TL-01_ht_20230825_KO_1_8 muscle*	TL-01_ht_20230825_KO_1_8 carcass*	661-01_ef_20230831_RB_1	661-01_ef_20230831_RB_2
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00
						VA23C2929-089	VA23C2929-090	VA23C2929-091	VA23C2929-098	VA23C2929-099
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		0.37	----	----	----	----
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		----	<0.20	<0.20	<0.20	<0.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		----	<0.0050	0.0080	0.100	0.0677
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		0.052	----	----	----	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		----	<0.0010	0.0019	0.0253	0.0164
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		0.0112	----	----	----	----
Calcium	7440-70-2	E472/VA	20	mg/kg		559	----	----	----	----
Calcium	7440-70-2	E440/VA	20	mg/kg		----	505	14200	22500	30300
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		121	----	----	----	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		----	104	3490	5690	7330
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		0.0052	----	----	----	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		----	0.0084	0.0057	0.323	0.183
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		0.0011	----	----	----	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		----	0.0017	0.0014	0.0816	0.0443
Chromium	7440-47-3	E440/VA	0.050	mg/kg		----	0.064	0.061	0.116	0.163
Chromium	7440-47-3	E472/VA	0.20	mg/kg		<0.20	----	----	----	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		----	0.013	0.015	0.029	0.039
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	----	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		0.056	----	----	----	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		----	0.021	0.027	0.151	0.102
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		0.0122	----	----	----	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		----	0.0043	0.0066	0.0381	0.0246
Copper	7440-50-8	E440/VA	0.10	mg/kg		----	2.98	4.31	2.73	2.76
Copper	7440-50-8	E472/VA	0.20	mg/kg		136	----	----	----	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		----	0.612	1.05	0.691	0.669
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		29.5	----	----	----	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		----	25.0	73.3	188	68.7
Iron	7439-89-6	E472/VA	5.0	mg/kg		1270	----	----	----	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		----	5.12	17.9	47.5	16.6

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_8 liver*	TL-01_ht_20230825_KO_1_8 muscle*	TL-01_ht_20230825_KO_1_8 carcass*	661-01_ef_20230831_RB_1	661-01_ef_20230831_RB_2
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00
						VA23C2929-089	VA23C2929-090	VA23C2929-091	VA23C2929-098	VA23C2929-099
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		274	----	----	----	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		----	<0.020	<0.020	0.022	<0.020
Lead	7439-92-1	E472/VA	0.050	mg/kg		<0.050	----	----	----	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	<0.0040	0.0055	<0.0040
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		<0.010	----	----	----	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		<0.50	----	----	----	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		----	<0.50	<0.50	<0.50	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		<0.10	----	----	----	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		----	<0.10	<0.10	<0.10	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		778	----	----	----	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		----	1060	990	1330	1480
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		168	----	----	----	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		----	218	242	335	359
Manganese	7439-96-5	E472/VA	0.050	mg/kg		4.29	----	----	----	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		----	0.490	4.09	40.8	34.1
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		0.928	----	----	----	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		----	0.100	1.00	10.3	8.26
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		0.282	----	----	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		----	0.265	0.177	0.167	0.185
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		0.0611	----	----	----	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		----	0.0543	0.0433	0.0423	0.0449
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		----	0.032	0.045	0.111	0.064
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		0.581	----	----	----	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		----	0.0066	0.0110	0.0280	0.0154
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		0.126	----	----	----	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		<0.20	----	----	----	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		----	<0.20	<0.20	<0.20	<0.20
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	----	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		----	<0.040	<0.040	<0.040	<0.040

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_8 liver*	TL-01_ht_20230825_KO_1_8 muscle*	TL-01_ht_20230825_KO_1_8 carcass*	661-01_ef_20230831_RB_1	661-01_ef_20230831_RB_2
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00
						VA23C2929-089	VA23C2929-090	VA23C2929-091	VA23C2929-098	VA23C2929-099
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		13800	----	----	----	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		----	10800	16900	22200	26200
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		3000	----	----	----	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		----	2220	4130	5600	6350
Potassium	7440-09-7	E472/VA	20	mg/kg		12800	----	----	----	----
Potassium	7440-09-7	E440/VA	20	mg/kg		----	18100	12300	13200	13000
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		2780	----	----	----	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		----	3710	3010	3340	3140
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		8.01	----	----	----	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		----	9.42	6.73	31.0	28.4
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		1.73	----	----	----	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		----	1.93	1.65	7.85	6.89
Selenium	7782-49-2	E440/VA	0.050	mg/kg		----	0.613	0.754	0.629	0.678
Selenium	7782-49-2	E472/VA	0.10	mg/kg		5.54	----	----	----	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		----	0.126	0.184	0.159	0.164
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		1.20	----	----	----	----
Sodium	7440-23-5	E472/VA	20	mg/kg		4890	----	----	----	----
Sodium	7440-23-5	E440/VA	20	mg/kg		----	2330	3550	3390	3380
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		1060	----	----	----	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		----	477	867	857	817
Strontium	7440-24-6	E440/VA	0.050	mg/kg		----	0.434	14.7	33.6	43.2
Strontium	7440-24-6	E472/VA	0.10	mg/kg		0.66	----	----	----	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		----	0.089	3.60	8.49	10.4
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		0.143	----	----	----	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		<0.020	----	----	----	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		----	<0.020	<0.020	<0.020	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		<0.0040	----	----	----	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	<0.0040	<0.0040	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		0.0234	----	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TL-01_ht_20230825_KO_1_8 liver*	TL-01_ht_20230825_KO_1_8 muscle*	TL-01_ht_20230825_KO_1_8 carcass*	661-01_ef_20230831_RB_1	661-01_ef_20230831_RB_2
					Client sampling date / time	25-Aug-2023 00:00	25-Aug-2023 00:00	25-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00
						VA23C2929-089	VA23C2929-090	VA23C2929-091	VA23C2929-098	VA23C2929-099
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		----	0.0060	0.0049	0.0255	0.0307
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		0.00506	----	----	----	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		----	0.00122	0.00120	0.00644	0.00743
Tin	7440-31-5	E472/VA	0.10	mg/kg		<0.10	----	----	----	----
Tin	7440-31-5	E440/VA	0.10	mg/kg		----	0.32	<0.10	0.38	0.28
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		<0.020	----	----	----	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		----	0.067	<0.020	0.097	0.068
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		<0.0020	----	----	----	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		----	<0.0020	<0.0020	0.0144	0.0071
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		<0.00040	----	----	----	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		----	<0.00040	<0.00040	0.00363	0.00172
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		0.11	----	----	----	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		----	<0.10	<0.10	0.14	<0.10
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		0.024	----	----	----	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		----	<0.020	<0.020	0.035	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg		----	21.7	125	97.3	114
Zinc	7440-66-6	E472/VA	1.0	mg/kg		405	----	----	----	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		----	4.44	30.6	24.6	27.5
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		87.7	----	----	----	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		<0.20	----	----	----	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		----	<0.20	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	----	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		----	<0.040	<0.040	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-01_ef_202 30831_RB_3	661-01_ef_202 30831_RB_4	661-01_ef_202 30831_RB_5	661-01_ef_202 30831_RB_6	661-01_ef_202 30831_RB_7
					Client sampling date / time	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00
						VA23C2929-100	VA23C2929-101	VA23C2929-102	VA23C2929-103	VA23C2929-104
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		74.2	75.6	75.3	76.7	75.7
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		12.8	4.9	4.5	15.0	17.4
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		3.29	1.19	1.11	3.48	4.21
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.252	0.182	0.200	0.210	0.205
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0650	0.0445	0.0493	0.0489	0.0497
Barium	7440-39-3	E440/VA	0.050	mg/kg		0.996	1.45	1.25	2.50	1.09
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		0.256	0.355	0.307	0.581	0.264
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	<1.0	<1.0	<1.0	<1.0
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0492	0.0354	0.0431	0.0863	0.0697
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0127	0.0086	0.0106	0.0201	0.0169
Calcium	7440-70-2	E440/VA	20	mg/kg		12800	26300	14800	37200	18900
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		3300	6420	3660	8650	4600
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.252	0.149	0.188	0.171	0.192
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0649	0.0364	0.0464	0.0399	0.0467
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.066	0.094	0.153	0.158	0.131
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.017	0.023	0.038	0.037	0.032
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.089	0.052	0.081	0.108	0.170
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0229	0.0127	0.0200	0.0253	0.0414
Copper	7440-50-8	E440/VA	0.10	mg/kg		2.43	2.18	2.51	3.44	3.44
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.626	0.532	0.620	0.801	0.834
Iron	7439-89-6	E440/VA	3.0	mg/kg		80.4	57.5	44.0	96.7	79.2
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		20.7	14.0	10.8	22.5	19.2

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-01_ef_20230831_RB_3	661-01_ef_20230831_RB_4	661-01_ef_20230831_RB_5	661-01_ef_20230831_RB_6	661-01_ef_20230831_RB_7
					Client sampling date / time	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00
						VA23C2929-100	VA23C2929-101	VA23C2929-102	VA23C2929-103	VA23C2929-104
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	<0.020
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1000	1390	1140	1580	1220
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		259	340	280	368	296
Manganese	7439-96-5	E440/VA	0.050	mg/kg		20.3	20.8	24.6	35.1	23.5
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		5.22	5.09	6.06	8.17	5.70
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.170	0.215	0.164	0.215	0.169
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0438	0.0524	0.0406	0.0502	0.0411
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.053	0.052	0.051	0.096	0.057
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0136	0.0128	0.0125	0.0224	0.0140
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	<0.040	<0.040
Phosphorus	7723-14-0	E440/VA	10	mg/kg		16900	24900	18000	31300	21800
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		4350	6080	4450	7290	5300
Potassium	7440-09-7	E440/VA	20	mg/kg		13200	13600	12800	13900	14400
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3410	3340	3160	3230	3490
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		30.4	25.9	24.1	28.9	35.2
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		7.85	6.33	5.95	6.72	8.54
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.592	0.691	0.545	0.644	0.620
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.153	0.169	0.134	0.150	0.151
Sodium	7440-23-5	E440/VA	20	mg/kg		3250	3120	2920	4050	3380
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		838	762	719	942	820
Strontium	7440-24-6	E440/VA	0.050	mg/kg		18.4	37.6	24.8	60.3	27.6
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		4.75	9.18	6.12	14.0	6.69
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	<0.020
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0241	0.0282	0.0214	0.0337	0.0313
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00622	0.00688	0.00529	0.00784	0.00759

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-01_ef_20230831_RB_3	661-01_ef_20230831_RB_4	661-01_ef_20230831_RB_5	661-01_ef_20230831_RB_6	661-01_ef_20230831_RB_7
					Client sampling date / time	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00
						VA23C2929-100	VA23C2929-101	VA23C2929-102	VA23C2929-103	VA23C2929-104
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.19	0.21	0.41	0.29	0.27
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.050	0.050	0.100	0.067	0.065
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0048	0.0058	0.0048	0.0102	0.0063
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.00124	0.00141	0.00118	0.00238	0.00153
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	<0.10	<0.10	<0.10	<0.10
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	<0.020	<0.020	<0.020	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg		69.8	95.3	75.5	122	81.2
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		18.0	23.3	18.6	28.4	19.7
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-01_ef_20230831_RB_8	FC-01_ef_20230831_RB_1	FC-01_ef_20230831_RB_2	FC-01_ef_20230831_RB_3	FC-01_ef_20230831_RB_4
					Client sampling date / time	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00
						VA23C2929-105	VA23C2929-106	VA23C2929-107	VA23C2929-108	VA23C2929-109
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		73.9	71.3	72.7	74.7	74.8
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		4.4	24.8	163	47.9	10.3
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		1.16	7.14	44.4	12.1	2.59
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	0.010	<0.010	<0.010
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	0.0020	0.0028	0.0023	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.221	0.196	0.370	0.854	0.203
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0578	0.0565	0.101	0.216	0.0510
Barium	7440-39-3	E440/VA	0.050	mg/kg		1.16	0.820	1.55	1.97	1.04
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		0.303	0.236	0.422	0.500	0.261
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	<1.0	<1.0	<1.0	<1.0
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0667	0.187	0.260	0.202	0.139
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0174	0.0536	0.0710	0.0512	0.0349
Calcium	7440-70-2	E440/VA	20	mg/kg		16900	11100	12200	6840	19700
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		4420	3180	3330	1730	4950
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.193	0.126	0.194	0.162	0.149
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0504	0.0363	0.0528	0.0409	0.0376
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.087	0.148	0.143	0.177	0.150
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.023	0.042	0.039	0.045	0.038
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.107	0.087	0.235	0.137	0.083
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0280	0.0250	0.0641	0.0347	0.0209
Copper	7440-50-8	E440/VA	0.10	mg/kg		3.21	2.98	5.30	3.66	4.48
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.839	0.857	1.44	0.926	1.13
Iron	7439-89-6	E440/VA	3.0	mg/kg		56.1	88.6	311	82.6	49.0
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		14.7	25.5	84.7	20.9	12.3

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-01_ef_20230831_RB_8	FC-01_ef_20230831_RB_1	FC-01_ef_20230831_RB_2	FC-01_ef_20230831_RB_3	FC-01_ef_20230831_RB_4
					Client sampling date / time	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00
						VA23C2929-105	VA23C2929-106	VA23C2929-107	VA23C2929-108	VA23C2929-109
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	<0.020	0.188	0.030	<0.020
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0043	0.0514	0.0077	<0.0040
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1160	917	1010	911	1110
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		302	263	276	231	280
Manganese	7439-96-5	E440/VA	0.050	mg/kg		19.3	4.11	7.60	3.18	4.77
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		5.05	1.18	2.07	0.806	1.20
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.179	0.0644	0.0634	0.0825	0.0787
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0468	0.0185	0.0173	0.0209	0.0198
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.055	0.050	0.050	0.071	0.046
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0143	0.0144	0.0136	0.0181	0.0116
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	<0.040	<0.040
Phosphorus	7723-14-0	E440/VA	10	mg/kg		19700	13800	14100	13000	19400
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		5140	3960	3860	3290	4890
Potassium	7440-09-7	E440/VA	20	mg/kg		13200	11500	11500	13200	12700
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3460	3310	3150	3360	3210
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		31.9	16.2	19.2	21.9	19.1
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		8.34	4.64	5.23	5.55	4.82
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.636	1.71	2.08	1.91	1.95
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.166	0.493	0.567	0.484	0.491
Sodium	7440-23-5	E440/VA	20	mg/kg		3110	2650	2840	2810	2850
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		812	763	774	712	717
Strontium	7440-24-6	E440/VA	0.050	mg/kg		24.4	9.25	11.2	5.25	15.9
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		6.38	2.66	3.06	1.33	4.01
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	<0.020
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0300	0.0218	0.0371	0.0280	0.0283
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00783	0.00626	0.0101	0.00710	0.00712

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: 661-01_ef_20230831_RB_8	FC-01_ef_20230831_RB_1	FC-01_ef_20230831_RB_2	FC-01_ef_20230831_RB_3	FC-01_ef_20230831_RB_4
					Client sampling date / time: 31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00
					VA23C2929-105	VA23C2929-106	VA23C2929-107	VA23C2929-108	VA23C2929-109
					Result	Result	Result	Result	Result
Metals									
Tin	7440-31-5	E440/VA	0.10	mg/kg	0.32	<0.10	<0.10	0.12	<0.10
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt	0.082	<0.020	0.026	0.030	<0.020
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	0.0048	0.0040	0.0061	0.0104	0.0034
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt	0.00125	0.00115	0.00167	0.00264	0.00085
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	0.15	0.44	0.15	<0.10
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt	<0.020	0.042	0.119	0.038	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg	76.4	57.4	70.3	59.4	70.4
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt	20.0	16.5	19.2	15.0	17.7
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt	<0.040	<0.040	<0.040	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	FC-01_ef_2023 0831_RB_5	FC-01_ef_2023 0831_RB_6	FC-01_ef_2023 0831_RB_7	FC-01_ef_2023 0831_RB_8	----
					Client sampling date / time	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00	----
						VA23C2929-110	VA23C2929-111	VA23C2929-112	VA23C2929-113	--------
						Result	Result	Result	Result	----
Physical Tests										
Moisture	----	E144/VA	0.50	%		73.6	77.8	----	----	----
Moisture	----	E144-H/VA	2.0	%		----	----	73.5	75.8	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		35.0	24.6	----	----	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	85.2	16.7	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		9.24	5.46	----	----	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	22.6	4.0	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	<0.010	0.017	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	----	----	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	0.0026	0.0041	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	----	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.309	0.352	----	----	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	0.656	0.327	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0816	0.0781	----	----	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	0.174	0.0791	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	1.76	1.69	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		1.78	1.09	----	----	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	0.468	0.408	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		0.470	0.242	----	----	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	<0.010	<0.010	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	----	----	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	<0.0020	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	----	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	<0.010	<0.010	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	----	----	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	<0.0020	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	----	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	<1.0	<1.0	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	<1.0	----	----	----
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	0.24	<0.20	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	FC-01_ef_20230831_RB_5	FC-01_ef_20230831_RB_6	FC-01_ef_20230831_RB_7	FC-01_ef_20230831_RB_8	----
					Client sampling date / time	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00	----
						VA23C2929-110	VA23C2929-111	VA23C2929-112	VA23C2929-113	--------
						Result	Result	Result	Result	----
Metals										
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	<0.20	----	----	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.256	0.345	----	----	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	0.728	0.280	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0676	0.0767	----	----	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	0.193	0.0678	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	18200	15100	----
Calcium	7440-70-2	E440/VA	20	mg/kg		12400	11300	----	----	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	4830	3650	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		3280	2510	----	----	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	0.109	0.0754	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.142	0.162	----	----	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	0.0289	0.0182	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0375	0.0360	----	----	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.154	0.165	----	----	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	0.59	0.23	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.040	0.037	----	----	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	0.156	0.057	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	0.239	0.117	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.154	0.236	----	----	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	0.0635	0.0284	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0405	0.0524	----	----	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		4.12	5.37	----	----	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	5.00	3.00	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		1.08	1.19	----	----	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	1.33	0.724	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		89.1	97.7	----	----	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	192	76.8	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		23.5	21.7	----	----	----
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	51.0	18.6	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	<0.020	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	FC-01_ef_20230831_RB_5	FC-01_ef_20230831_RB_6	FC-01_ef_20230831_RB_7	FC-01_ef_20230831_RB_8	----
					Client sampling date / time	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00	----
						VA23C2929-110	VA23C2929-111	VA23C2929-112	VA23C2929-113	--------
						Result	Result	Result	Result	----
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	<0.050	<0.050	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0043	<0.0040	----	----	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	<0.010	<0.010	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	<0.50	<0.50	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	----	----	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	<0.10	<0.10	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	----	----	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	1370	1340	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		910	1070	----	----	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	363	323	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		240	238	----	----	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	12.9	8.60	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		4.87	4.70	----	----	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	3.42	2.08	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		1.28	1.04	----	----	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	0.0286	0.0299	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0918	0.0646	----	----	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	0.0076	0.0072	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0242	0.0144	----	----	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.066	0.059	----	----	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	0.133	0.081	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0173	0.0132	----	----	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	0.0353	0.0196	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	0.27	<0.20	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	----	----	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	0.072	<0.040	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	----	----
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	20300	18000	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		15500	16800	----	----	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	5380	4350	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	FC-01_ef_20230831_RB_5	FC-01_ef_20230831_RB_6	FC-01_ef_20230831_RB_7	FC-01_ef_20230831_RB_8	----
					Client sampling date / time	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00	----
						VA23C2929-110	VA23C2929-111	VA23C2929-112	VA23C2929-113	--------
						Result	Result	Result	Result	----
Metals										
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		4090	3740	----	----	----
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	10900	11900	----
Potassium	7440-09-7	E440/VA	20	mg/kg		11100	14700	----	----	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	2880	2880	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		2920	3270	----	----	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	15.8	13.4	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		17.5	23.8	----	----	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	4.19	3.23	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		4.62	5.30	----	----	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		2.24	2.06	----	----	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	1.89	1.51	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.591	0.457	----	----	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	0.502	0.366	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	2690	2970	----
Sodium	7440-23-5	E440/VA	20	mg/kg		2740	3090	----	----	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	713	719	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		723	687	----	----	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		11.1	9.56	----	----	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	15.0	14.5	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		2.92	2.12	----	----	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	3.99	3.50	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	<0.020	<0.020	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	----	----	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	<0.0040	<0.0040	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	----	----	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	0.0401	0.0304	----
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0293	0.0362	----	----	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	----	0.0106	0.00734	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00773	0.00805	----	----	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	0.80	<0.10	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	FC-01_ef_20230831_RB_5	FC-01_ef_20230831_RB_6	FC-01_ef_20230831_RB_7	FC-01_ef_20230831_RB_8	----
					Client sampling date / time	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00	31-Aug-2023 00:00	----
						VA23C2929-110	VA23C2929-111	VA23C2929-112	VA23C2929-113	--------
						Result	Result	Result	Result	----
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		<0.10	<0.10	----	----	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	0.212	<0.020	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		<0.020	<0.020	----	----	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	0.0096	0.0049	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0060	0.0061	----	----	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	0.00255	0.00120	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.00157	0.00136	----	----	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	0.44	0.10	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		0.15	0.17	----	----	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	0.116	0.024	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.040	0.037	----	----	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		60.9	80.7	----	----	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	108	99.8	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		16.0	17.9	----	----	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	28.7	24.1	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	<0.20	<0.20	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	----	----	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	<0.040	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	----	----

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

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

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **VA23C2929**	Page	: 1 of 68
Client	: Palmer Environmental Consulting Group Inc.	Laboratory	: ALS Environmental - Vancouver
Contact	: Accounts Payable	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: 2006506	Date Samples Received	: 26-Sep-2023 11:50
PO	: 15180	Date Analysis Commenced	: 08-Nov-2023
C-O-C number	: ----	Issue Date	: 24-Nov-2023 09:41
Sampler	: Marissa Heppner 647 795 8153		
Site	: ----		
Quote number	: VA23-BWGL100-002		
No. of samples received	: 113		
No. of samples analysed	: 104		

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*
Arshdeep Kaur	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Owen Cheng		Vancouver Metals, Burnaby, British Columbia
Ragini Saini	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Robin Weeks	Team Leader - Metals	Vancouver Metals, Burnaby, British Columbia
Sam Silveira	Lab Assistant	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: **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: 1229592)											
VA23C2929-019	TL-01_an_20230909_RB_1 carcass *	Moisture	----	E144	0.50	%	72.8	71.2	2.36%	20%	----
Physical Tests (QC Lot: 1229593)											
VA23C2929-034	TL-01_gn_20230909_RB_5 carcass*	Moisture	----	E144	0.50	%	70.1	69.8	0.445%	20%	----
Physical Tests (QC Lot: 1229594)											
VA23C2929-064	TL-01_gn_20230907_MW_ 8 carcass*	Moisture	----	E144	0.50	%	73.4	72.7	0.962%	20%	----
Physical Tests (QC Lot: 1229595)											
VA23C2929-098	661-01_ef_20230831_RB_ 1	Moisture	----	E144	0.50	%	74.7	74.7	0.00212%	20%	----
Physical Tests (QC Lot: 1235630)											
VA23C2929-080	TL-01_ht_20230825_KO_1 _5 liver *	Moisture	----	E144-H	2.0	%	80.0	80.3	0.479%	20%	----
Physical Tests (QC Lot: 1239277)											
VA23C2951-056	Anonymous	Moisture	----	E144	0.50	%	78.5	78.6	0.133%	20%	----
Physical Tests (QC Lot: 1239895)											
VA23C2929-016	DC-5/DC-15_ef_20230824 _RB_8	Moisture	----	E144-H	2.0	%	72.2	72.4	0.238%	20%	----
Metals (QC Lot: 1232983)											
VA23C2929-019	TL-01_an_20230909_RB_1 carcass *	Mercury	7439-97-6	E510A	0.0019	mg/kg wwt	0.0425	0.0451	5.96%	40%	----
Metals (QC Lot: 1232984)											
VA23C2929-019	TL-01_an_20230909_RB_1 carcass *	Aluminum	7429-90-5	E440A	0.40	mg/kg wwt	1.23	1.30	0.07	Diff <2x LOR	----
		Antimony	7440-36-0	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440A	0.0040	mg/kg wwt	0.0138	0.0137	0.00009	Diff <2x LOR	----
		Barium	7440-39-3	E440A	0.010	mg/kg wwt	0.180	0.108	49.4%	40%	DUP-H
		Beryllium	7440-41-7	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Boron	7440-42-8	E440A	0.20	mg/kg wwt	<0.20	<0.20	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440A	0.0010	mg/kg wwt	0.0060	0.0060	0.577%	40%	----
		Calcium	7440-70-2	E440A	4.0	mg/kg wwt	3860	1660	79.7%	60%	DUP-H
		Cesium	7440-46-2	E440A	0.0010	mg/kg wwt	0.0044	0.0047	0.0002	Diff <2x LOR	----
		Chromium	7440-47-3	E440A	0.010	mg/kg wwt	0.013	0.012	0.0009	Diff <2x LOR	----

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: 1232984) - continued											
VA23C2929-019	TL-01_an_20230909_RB_1 carcass *	Cobalt	7440-48-4	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Copper	7440-50-8	E440A	0.020	mg/kg wwt	0.480	0.507	5.50%	40%	----
		Iron	7439-89-6	E440A	0.60	mg/kg wwt	13.0	12.3	5.15%	40%	----
		Lead	7439-92-1	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Lithium	7439-93-2	E440A	0.10	mg/kg wwt	<0.10	<0.10	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440A	0.40	mg/kg wwt	297	282	5.06%	40%	----
		Manganese	7439-96-5	E440A	0.010	mg/kg wwt	2.43	1.35	57.2%	40%	DUP-H
		Molybdenum	7439-98-7	E440A	0.0040	mg/kg wwt	0.0095	0.0094	0.00001	Diff <2x LOR	----
		Nickel	7440-02-0	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440A	2.0	mg/kg wwt	4490	3390	27.7%	40%	----
		Potassium	7440-09-7	E440A	4.0	mg/kg wwt	3760	4040	7.17%	40%	----
		Rubidium	7440-17-7	E440A	0.010	mg/kg wwt	1.88	2.02	7.18%	40%	----
		Selenium	7782-49-2	E440A	0.010	mg/kg wwt	0.189	0.194	2.70%	40%	----
		Sodium	7440-23-5	E440A	4.0	mg/kg wwt	738	790	6.81%	40%	----
		Strontium	7440-24-6	E440A	0.010	mg/kg wwt	3.53	1.67	71.2%	60%	DUP-H
		Tellurium	13494-80-9	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440A	0.00040	mg/kg wwt	0.00063	0.00056	0.00007	Diff <2x LOR	----
		Tin	7440-31-5	E440A	0.020	mg/kg wwt	<0.020	<0.020	0	Diff <2x LOR	----
		Uranium	7440-61-1	E440A	0.00040	mg/kg wwt	<0.00040	<0.00040	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E440A	0.020	mg/kg wwt	<0.020	<0.020	0	Diff <2x LOR	----
		Zinc	7440-66-6	E440A	0.10	mg/kg wwt	35.9	31.7	12.4%	40%	----
		Zirconium	7440-67-7	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
Metals (QC Lot: 1232985)											
VA23C2929-019	TL-01_an_20230909_RB_1 carcass *	Aluminum	7429-90-5	E440	2.0	mg/kg	4.5	4.8	0.3	Diff <2x LOR	----
		Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.051	0.050	0.0003	Diff <2x LOR	----
		Barium	7440-39-3	E440	0.050	mg/kg	0.661	0.399	49.4%	40%	DUP-H
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E440	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.0050	mg/kg	0.0223	0.0222	0.0001	Diff <2x LOR	----
		Calcium	7440-70-2	E440	20	mg/kg	14200	6110	79.7%	60%	DUP-H
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.0162	0.0172	0.0009	Diff <2x LOR	----

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: 1232985) - continued											
VA23C2929-019	TL-01_an_20230909_RB_1 carcass *	Chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Copper	7440-50-8	E440	0.10	mg/kg	1.77	1.87	5.50%	40%	----
		Iron	7439-89-6	E440	3.0	mg/kg	47.7	45.3	5.15%	40%	----
		Lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	2.0	mg/kg	1090	1040	5.06%	40%	----
		Manganese	7439-96-5	E440	0.050	mg/kg	8.95	4.97	57.2%	40%	DUP-H
		Molybdenum	7439-98-7	E440	0.020	mg/kg	0.035	0.035	0.00005	Diff <2x LOR	----
		Nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440	10	mg/kg	16500	12500	27.7%	40%	----
		Potassium	7440-09-7	E440	20	mg/kg	13800	14900	7.17%	40%	----
		Rubidium	7440-17-7	E440	0.050	mg/kg	6.91	7.43	7.18%	40%	----
		Selenium	7782-49-2	E440	0.050	mg/kg	0.696	0.715	2.70%	40%	----
		Sodium	7440-23-5	E440	20	mg/kg	2720	2910	6.81%	40%	----
		Strontium	7440-24-6	E440	0.050	mg/kg	13.0	6.17	71.2%	60%	DUP-H
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.0020	mg/kg	0.0023	0.0021	0.0003	Diff <2x LOR	----
		Tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Zinc	7440-66-6	E440	0.50	mg/kg	132	117	12.4%	40%	----
		Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 1232986)											
VA23C2929-019	TL-01_an_20230909_RB_1 carcass *	Mercury	7439-97-6	E510	0.0070	mg/kg	0.156	0.166	5.96%	40%	----
Metals (QC Lot: 1232991)											
VA23C2929-034	TL-01_gn_20230909_RB_5 carcass*	Mercury	7439-97-6	E510A	0.0017	mg/kg wwt	0.0532	0.0443	18.3%	40%	----
Metals (QC Lot: 1232992)											
VA23C2929-034	TL-01_gn_20230909_RB_5 carcass*	Aluminum	7429-90-5	E440A	0.40	mg/kg wwt	<0.40	<0.40	0	Diff <2x LOR	----
		Antimony	7440-36-0	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440A	0.0040	mg/kg wwt	0.133	0.143	7.22%	40%	----
		Barium	7440-39-3	E440A	0.010	mg/kg wwt	0.064	0.061	4.36%	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: 1232992) - continued											
VA23C2929-034	TL-01_gn_20230909_RB_5 carcass*	Beryllium	7440-41-7	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Boron	7440-42-8	E440A	0.20	mg/kg wwt	<0.20	<0.20	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440A	0.0010	mg/kg wwt	0.0032	0.0032	0.00006	Diff <2x LOR	----
		Calcium	7440-70-2	E440A	4.0	mg/kg wwt	1820	1810	0.193%	60%	----
		Cesium	7440-46-2	E440A	0.0010	mg/kg wwt	0.0013	0.0014	0.00004	Diff <2x LOR	----
		Chromium	7440-47-3	E440A	0.010	mg/kg wwt	<0.010	<0.010	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E440A	0.0040	mg/kg wwt	0.0101	0.0111	0.0010	Diff <2x LOR	----
		Copper	7440-50-8	E440A	0.020	mg/kg wwt	0.425	0.448	5.23%	40%	----
		Iron	7439-89-6	E440A	0.60	mg/kg wwt	11.1	12.1	8.79%	40%	----
		Lead	7439-92-1	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Lithium	7439-93-2	E440A	0.10	mg/kg wwt	<0.10	<0.10	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440A	0.40	mg/kg wwt	269	287	6.63%	40%	----
		Manganese	7439-96-5	E440A	0.010	mg/kg wwt	0.974	0.982	0.891%	40%	----
		Molybdenum	7439-98-7	E440A	0.0040	mg/kg wwt	0.0093	0.0093	0.00003	Diff <2x LOR	----
		Nickel	7440-02-0	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440A	2.0	mg/kg wwt	3100	3380	8.77%	40%	----
		Potassium	7440-09-7	E440A	4.0	mg/kg wwt	3290	3610	9.16%	40%	----
		Rubidium	7440-17-7	E440A	0.010	mg/kg wwt	1.66	1.81	8.33%	40%	----
		Selenium	7782-49-2	E440A	0.010	mg/kg wwt	0.226	0.241	6.30%	40%	----
		Sodium	7440-23-5	E440A	4.0	mg/kg wwt	671	742	10.0%	40%	----
		Strontium	7440-24-6	E440A	0.010	mg/kg wwt	2.13	2.11	1.14%	60%	----
		Tellurium	13494-80-9	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440A	0.00040	mg/kg wwt	0.00096	0.00095	0.00001	Diff <2x LOR	----
		Tin	7440-31-5	E440A	0.020	mg/kg wwt	<0.020	<0.020	0	Diff <2x LOR	----
		Uranium	7440-61-1	E440A	0.00040	mg/kg wwt	<0.00040	<0.00040	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E440A	0.020	mg/kg wwt	<0.020	<0.020	0	Diff <2x LOR	----
		Zinc	7440-66-6	E440A	0.10	mg/kg wwt	30.3	32.0	5.46%	40%	----
		Zirconium	7440-67-7	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
Metals (QC Lot: 1232993)											
VA23C2929-034	TL-01_gn_20230909_RB_5 carcass*	Aluminum	7429-90-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----
		Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.444	0.477	7.22%	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: 1232993) - continued											
VA23C2929-034	TL-01_gn_20230909_RB_5 carcass*	Barium	7440-39-3	E440	0.050	mg/kg	0.213	0.204	0.009	Diff <2x LOR	----
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E440	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.0050	mg/kg	0.0107	0.0109	0.0002	Diff <2x LOR	----
		Calcium	7440-70-2	E440	20	mg/kg	6070	6060	0.193%	60%	----
		Cesium	7440-46-2	E440	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		Chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E440	0.020	mg/kg	0.034	0.037	0.003	Diff <2x LOR	----
		Copper	7440-50-8	E440	0.10	mg/kg	1.42	1.50	5.23%	40%	----
		Iron	7439-89-6	E440	3.0	mg/kg	37.0	40.4	8.79%	40%	----
		Lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	2.0	mg/kg	899	961	6.63%	40%	----
		Manganese	7439-96-5	E440	0.050	mg/kg	3.26	3.28	0.891%	40%	----
		Molybdenum	7439-98-7	E440	0.020	mg/kg	0.031	0.031	0.00009	Diff <2x LOR	----
		Nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440	10	mg/kg	10400	11300	8.77%	40%	----
		Potassium	7440-09-7	E440	20	mg/kg	11000	12100	9.16%	40%	----
		Rubidium	7440-17-7	E440	0.050	mg/kg	5.56	6.05	8.33%	40%	----
		Selenium	7782-49-2	E440	0.050	mg/kg	0.757	0.806	6.30%	40%	----
		Sodium	7440-23-5	E440	20	mg/kg	2240	2480	10.0%	40%	----
		Strontium	7440-24-6	E440	0.050	mg/kg	7.13	7.05	1.14%	60%	----
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.0020	mg/kg	0.0032	0.0032	0.00004	Diff <2x LOR	----
		Tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Zinc	7440-66-6	E440	0.50	mg/kg	101	107	5.46%	40%	----
		Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 1232994)											
VA23C2929-034	TL-01_gn_20230909_RB_5 carcass*	Mercury	7439-97-6	E510	0.0057	mg/kg	0.178	0.148	18.3%	40%	----
Metals (QC Lot: 1233006)											

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: 1233006) - continued											
VA23C2929-098	661-01_ef_20230831_RB_1	Mercury	7439-97-6	E510A	0.0020	mg/kg wwt	0.0423	0.0413	2.26%	40%	----
Metals (QC Lot: 1233007)											
VA23C2929-098	661-01_ef_20230831_RB_1	Aluminum	7429-90-5	E440A	0.40	mg/kg wwt	16.3	8.62	61.4%	40%	DUP-H
		Antimony	7440-36-0	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440A	0.0040	mg/kg wwt	0.0973	0.0743	26.8%	40%	----
		Barium	7440-39-3	E440A	0.010	mg/kg wwt	0.415	0.398	4.30%	40%	----
		Beryllium	7440-41-7	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Boron	7440-42-8	E440A	0.20	mg/kg wwt	<0.20	<0.20	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440A	0.0010	mg/kg wwt	0.0253	0.0232	8.52%	40%	----
		Calcium	7440-70-2	E440A	4.0	mg/kg wwt	5690	5860	2.89%	60%	----
		Cesium	7440-46-2	E440A	0.0010	mg/kg wwt	0.0816	0.0807	1.06%	40%	----
		Chromium	7440-47-3	E440A	0.010	mg/kg wwt	0.029	0.024	0.006	Diff <2x LOR	----
		Cobalt	7440-48-4	E440A	0.0040	mg/kg wwt	0.0381	0.0352	8.00%	40%	----
		Copper	7440-50-8	E440A	0.020	mg/kg wwt	0.691	0.731	5.61%	40%	----
		Iron	7439-89-6	E440A	0.60	mg/kg wwt	47.5	31.0	41.9%	40%	DUP-H
		Lead	7439-92-1	E440A	0.0040	mg/kg wwt	0.0055	0.0040	0.0015	Diff <2x LOR	----
		Lithium	7439-93-2	E440A	0.10	mg/kg wwt	<0.10	<0.10	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440A	0.40	mg/kg wwt	335	321	4.51%	40%	----
		Manganese	7439-96-5	E440A	0.010	mg/kg wwt	10.3	10.2	1.54%	40%	----
		Molybdenum	7439-98-7	E440A	0.0040	mg/kg wwt	0.0280	0.0188	39.4%	40%	----
		Nickel	7440-02-0	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440A	2.0	mg/kg wwt	5600	5530	1.35%	40%	----
		Potassium	7440-09-7	E440A	4.0	mg/kg wwt	3340	3260	2.42%	40%	----
		Rubidium	7440-17-7	E440A	0.010	mg/kg wwt	7.85	7.58	3.50%	40%	----
		Selenium	7782-49-2	E440A	0.010	mg/kg wwt	0.159	0.153	3.90%	40%	----
		Sodium	7440-23-5	E440A	4.0	mg/kg wwt	857	819	4.46%	40%	----
		Strontium	7440-24-6	E440A	0.010	mg/kg wwt	8.49	8.50	0.195%	60%	----
		Tellurium	13494-80-9	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440A	0.00040	mg/kg wwt	0.00644	0.00588	9.03%	40%	----
		Tin	7440-31-5	E440A	0.020	mg/kg wwt	0.097	0.092	0.004	Diff <2x LOR	----
		Uranium	7440-61-1	E440A	0.00040	mg/kg wwt	0.00363	0.00276	27.3%	40%	----
		Vanadium	7440-62-2	E440A	0.020	mg/kg wwt	0.035	0.023	0.012	Diff <2x LOR	----

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: 1233007) - continued											
VA23C2929-098	661-01_ef_20230831_RB_1	Zinc	7440-66-6	E440A	0.10	mg/kg wwt	24.6	20.2	19.4%	40%	----
		Zirconium	7440-67-7	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
Metals (QC Lot: 1233008)											
VA23C2929-098	661-01_ef_20230831_RB_1	Aluminum	7429-90-5	E440	2.0	mg/kg	64.3	34.1	61.4%	40%	DUP-H
		Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.385	0.294	26.8%	40%	----
		Barium	7440-39-3	E440	0.050	mg/kg	1.64	1.57	4.30%	40%	----
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E440	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.0050	mg/kg	0.100	0.0920	8.52%	40%	----
		Calcium	7440-70-2	E440	20	mg/kg	22500	23200	2.89%	60%	----
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.323	0.319	1.06%	40%	----
		Chromium	7440-47-3	E440	0.050	mg/kg	0.116	0.093	0.023	Diff <2x LOR	----
		Cobalt	7440-48-4	E440	0.020	mg/kg	0.151	0.139	8.00%	40%	----
		Copper	7440-50-8	E440	0.10	mg/kg	2.73	2.89	5.61%	40%	----
		Iron	7439-89-6	E440	3.0	mg/kg	188	123	41.9%	40%	DUP-H
		Lead	7439-92-1	E440	0.020	mg/kg	0.022	<0.020	0.002	Diff <2x LOR	----
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	2.0	mg/kg	1330	1270	4.51%	40%	----
		Manganese	7439-96-5	E440	0.050	mg/kg	40.8	40.2	1.54%	40%	----
		Molybdenum	7439-98-7	E440	0.020	mg/kg	0.111	0.074	0.036	Diff <2x LOR	----
		Nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440	10	mg/kg	22200	21900	1.35%	40%	----
		Potassium	7440-09-7	E440	20	mg/kg	13200	12900	2.42%	40%	----
		Rubidium	7440-17-7	E440	0.050	mg/kg	31.0	30.0	3.50%	40%	----
		Selenium	7782-49-2	E440	0.050	mg/kg	0.629	0.605	3.90%	40%	----
		Sodium	7440-23-5	E440	20	mg/kg	3390	3240	4.46%	40%	----
		Strontium	7440-24-6	E440	0.050	mg/kg	33.6	33.6	0.195%	60%	----
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.0020	mg/kg	0.0255	0.0233	9.03%	40%	----
		Tin	7440-31-5	E440	0.10	mg/kg	0.38	0.36	0.02	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.0020	mg/kg	0.0144	0.0109	27.3%	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: 1233008) - continued											
VA23C2929-098	661-01_ef_20230831_RB_1	Vanadium	7440-62-2	E440	0.10	mg/kg	0.14	<0.10	0.04	Diff <2x LOR	----
		Zinc	7440-66-6	E440	0.50	mg/kg	97.3	80.1	19.4%	40%	----
		Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 1233009)											
VA23C2929-098	661-01_ef_20230831_RB_1	Mercury	7439-97-6	E510	0.0079	mg/kg	0.167	0.163	2.26%	40%	----
Metals (QC Lot: 1233011)											
VA23C2929-064	TL-01_gn_20230907_MW_8 carcass*	Mercury	7439-97-6	E510A	0.0019	mg/kg wwt	0.149	0.161	7.53%	40%	----
Metals (QC Lot: 1233012)											
VA23C2929-064	TL-01_gn_20230907_MW_8 carcass*	Aluminum	7429-90-5	E440A	0.40	mg/kg wwt	7.17	7.02	2.12%	40%	----
		Antimony	7440-36-0	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440A	0.0040	mg/kg wwt	0.103	0.103	0.558%	40%	----
		Barium	7440-39-3	E440A	0.010	mg/kg wwt	1.27	0.811	43.8%	40%	DUP-H
		Beryllium	7440-41-7	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Boron	7440-42-8	E440A	0.20	mg/kg wwt	<0.20	<0.20	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440A	0.0010	mg/kg wwt	0.0039	0.0045	0.0006	Diff <2x LOR	----
		Calcium	7440-70-2	E440A	4.0	mg/kg wwt	18500	11000	50.6%	60%	----
		Cesium	7440-46-2	E440A	0.0010	mg/kg wwt	0.0032	0.0032	0.00005	Diff <2x LOR	----
		Chromium	7440-47-3	E440A	0.010	mg/kg wwt	0.022	0.022	0.00007	Diff <2x LOR	----
		Cobalt	7440-48-4	E440A	0.0040	mg/kg wwt	0.0246	0.0262	6.02%	40%	----
		Copper	7440-50-8	E440A	0.020	mg/kg wwt	0.933	0.938	0.593%	40%	----
		Iron	7439-89-6	E440A	0.60	mg/kg wwt	118	119	1.35%	40%	----
		Lead	7439-92-1	E440A	0.0040	mg/kg wwt	0.0115	0.0079	0.0036	Diff <2x LOR	----
		Lithium	7439-93-2	E440A	0.10	mg/kg wwt	<0.10	<0.10	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440A	0.40	mg/kg wwt	451	339	28.4%	40%	----
		Manganese	7439-96-5	E440A	0.010	mg/kg wwt	7.68	4.46	53.0%	40%	DUP-H
		Molybdenum	7439-98-7	E440A	0.0040	mg/kg wwt	0.0139	0.0119	0.0020	Diff <2x LOR	----
		Nickel	7440-02-0	E440A	0.040	mg/kg wwt	<0.040	0.043	0.003	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440A	2.0	mg/kg wwt	9220	5780	45.8%	40%	DUP-H
		Potassium	7440-09-7	E440A	4.0	mg/kg wwt	3130	3270	4.39%	40%	----
		Rubidium	7440-17-7	E440A	0.010	mg/kg wwt	1.19	1.25	5.30%	40%	----
		Selenium	7782-49-2	E440A	0.010	mg/kg wwt	0.340	0.368	7.76%	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: 1233012) - continued											
VA23C2929-064	TL-01_gn_20230907_MW_8 carcass*	Sodium	7440-23-5	E440A	4.0	mg/kg wwt	865	806	7.00%	40%	----
		Strontium	7440-24-6	E440A	0.010	mg/kg wwt	20.8	13.0	46.2%	60%	----
		Tellurium	13494-80-9	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440A	0.00040	mg/kg wwt	0.00161	0.00134	0.00027	Diff <2x LOR	----
		Tin	7440-31-5	E440A	0.020	mg/kg wwt	<0.020	<0.020	0	Diff <2x LOR	----
		Uranium	7440-61-1	E440A	0.00040	mg/kg wwt	0.0311	0.0149	70.5%	40%	DUP-H
		Vanadium	7440-62-2	E440A	0.020	mg/kg wwt	0.174	0.110	44.7%	40%	DUP-H
		Zinc	7440-66-6	E440A	0.10	mg/kg wwt	18.8	16.2	15.1%	40%	----
		Zirconium	7440-67-7	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
Metals (QC Lot: 1233013)											
VA23C2929-064	TL-01_gn_20230907_MW_8 carcass*	Aluminum	7429-90-5	E440	2.0	mg/kg	27.0	26.4	2.12%	40%	----
		Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.388	0.386	0.558%	40%	----
		Barium	7440-39-3	E440	0.050	mg/kg	4.76	3.05	43.8%	40%	DUP-H
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E440	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.0050	mg/kg	0.0148	0.0171	0.0023	Diff <2x LOR	----
		Calcium	7440-70-2	E440	20	mg/kg	69600	41500	50.6%	60%	----
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.0119	0.0121	0.0002	Diff <2x LOR	----
		Chromium	7440-47-3	E440	0.050	mg/kg	0.082	0.082	0.0002	Diff <2x LOR	----
		Cobalt	7440-48-4	E440	0.020	mg/kg	0.093	0.098	0.006	Diff <2x LOR	----
		Copper	7440-50-8	E440	0.10	mg/kg	3.51	3.53	0.593%	40%	----
		Iron	7439-89-6	E440	3.0	mg/kg	443	449	1.35%	40%	----
		Lead	7439-92-1	E440	0.020	mg/kg	0.043	0.030	0.014	Diff <2x LOR	----
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	2.0	mg/kg	1700	1280	28.4%	40%	----
		Manganese	7439-96-5	E440	0.050	mg/kg	28.9	16.8	53.0%	40%	DUP-H
		Molybdenum	7439-98-7	E440	0.020	mg/kg	0.052	0.045	0.007	Diff <2x LOR	----
		Nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440	10	mg/kg	34700	21800	45.8%	40%	DUP-H
		Potassium	7440-09-7	E440	20	mg/kg	11800	12300	4.39%	40%	----
		Rubidium	7440-17-7	E440	0.050	mg/kg	4.47	4.71	5.30%	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: 1233013) - continued											
VA23C2929-064	TL-01_gn_20230907_MW_8 carcass*	Selenium	7782-49-2	E440	0.050	mg/kg	1.28	1.38	7.76%	40%	----
		Sodium	7440-23-5	E440	20	mg/kg	3250	3030	7.00%	40%	----
		Strontium	7440-24-6	E440	0.050	mg/kg	78.4	49.0	46.2%	60%	----
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.0020	mg/kg	0.0061	0.0050	0.0010	Diff <2x LOR	----
		Tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.0020	mg/kg	0.117	0.0560	70.5%	40%	DUP-H
		Vanadium	7440-62-2	E440	0.10	mg/kg	0.65	0.42	44.7%	40%	DUP-H
		Zinc	7440-66-6	E440	0.50	mg/kg	71.0	61.0	15.1%	40%	----
		Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 1233014)											
VA23C2929-064	TL-01_gn_20230907_MW_8 carcass*	Mercury	7439-97-6	E510	0.0073	mg/kg	0.562	0.606	7.53%	40%	----
Metals (QC Lot: 1235626)											
VA23C2929-080	TL-01_ht_20230825_KO_1_5 liver *	Aluminum	7429-90-5	E472A	1.0	mg/kg wwt	<1.0	<1.0	0	Diff <2x LOR	----
		Antimony	7440-36-0	E472A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E472A	0.0060	mg/kg wwt	0.0458	0.0446	2.55%	40%	----
		Barium	7440-39-3	E472A	0.010	mg/kg wwt	0.127	0.141	10.5%	40%	----
		Beryllium	7440-41-7	E472A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E472A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Boron	7440-42-8	E472A	0.20	mg/kg wwt	<0.20	<0.20	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E472A	0.0020	mg/kg wwt	0.0163	0.0143	12.9%	40%	----
		Calcium	7440-70-2	E472A	4.0	mg/kg wwt	103	86.9	16.6%	60%	----
		Cesium	7440-46-2	E472A	0.0010	mg/kg wwt	0.0012	0.0011	0.00005	Diff <2x LOR	----
		Chromium	7440-47-3	E472A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E472A	0.0040	mg/kg wwt	0.0140	0.0137	0.0003	Diff <2x LOR	----
		Copper	7440-50-8	E472A	0.040	mg/kg wwt	5.83	5.10	13.2%	40%	----
		Iron	7439-89-6	E472A	1.0	mg/kg wwt	442	408	8.07%	40%	----
		Lead	7439-92-1	E472A	0.010	mg/kg wwt	<0.010	<0.010	0	Diff <2x LOR	----
		Lithium	7439-93-2	E472A	0.10	mg/kg wwt	<0.10	<0.10	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E472A	0.40	mg/kg wwt	161	155	3.89%	40%	----
		Manganese	7439-96-5	E472A	0.010	mg/kg wwt	0.963	0.858	11.5%	40%	----
		Molybdenum	7439-98-7	E472A	0.0080	mg/kg wwt	0.124	0.113	8.63%	40%	----
		Nickel	7440-02-0	E472A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----

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: 1235626) - continued											
VA23C2929-080	TL-01_ht_20230825_KO_1_5 liver *	Phosphorus	7723-14-0	E472A	2.0	mg/kg wwt	2880	2840	1.29%	40%	----
		Potassium	7440-09-7	E472A	4.0	mg/kg wwt	2850	2800	1.81%	40%	----
		Rubidium	7440-17-7	E472A	0.010	mg/kg wwt	1.76	1.74	1.05%	40%	----
		Selenium	7782-49-2	E472A	0.020	mg/kg wwt	0.717	0.623	14.0%	40%	----
		Sodium	7440-23-5	E472A	4.0	mg/kg wwt	1270	1280	0.806%	40%	----
		Strontium	7440-24-6	E472A	0.020	mg/kg wwt	0.139	0.114	19.9%	60%	----
		Tellurium	13494-80-9	E472A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Thallium	7440-28-0	E472A	0.00040	mg/kg wwt	0.00668	0.00610	8.95%	40%	----
		Tin	7440-31-5	E472A	0.020	mg/kg wwt	0.153	0.188	20.2%	40%	----
		Uranium	7440-61-1	E472A	0.00040	mg/kg wwt	<0.00040	<0.00040	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E472A	0.020	mg/kg wwt	0.024	0.020	0.004	Diff <2x LOR	----
		Zinc	7440-66-6	E472A	0.20	mg/kg wwt	70.2	73.0	3.92%	40%	----
		Zirconium	7440-67-7	E472A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
Metals (QC Lot: 1235627)											
VA23C2929-080	TL-01_ht_20230825_KO_1_5 liver *	Mercury	7439-97-6	E511	0.0058	mg/kg	0.474	0.430	9.61%	40%	----
Metals (QC Lot: 1235628)											
VA23C2929-080	TL-01_ht_20230825_KO_1_5 liver *	Mercury	7439-97-6	E511A	0.0012	mg/kg wwt	0.0950	0.0863	9.61%	40%	----
Metals (QC Lot: 1235629)											
VA23C2929-080	TL-01_ht_20230825_KO_1_5 liver *	Aluminum	7429-90-5	E472	5.0	mg/kg	<5.0	<5.0	0	Diff <2x LOR	----
		Antimony	7440-36-0	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E472	0.030	mg/kg	0.228	0.223	2.55%	40%	----
		Barium	7440-39-3	E472	0.050	mg/kg	0.634	0.704	10.5%	40%	----
		Beryllium	7440-41-7	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E472	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E472	0.010	mg/kg	0.081	0.071	12.9%	40%	----
		Calcium	7440-70-2	E472	20	mg/kg	512	434	16.6%	60%	----
		Cesium	7440-46-2	E472	0.0050	mg/kg	0.0059	0.0056	0.0002	Diff <2x LOR	----
		Chromium	7440-47-3	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E472	0.020	mg/kg	0.070	0.068	0.001	Diff <2x LOR	----
		Copper	7440-50-8	E472	0.20	mg/kg	29.1	25.5	13.2%	40%	----
		Iron	7439-89-6	E472	5.0	mg/kg	2200	2030	8.07%	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: 1235629) - continued											
VA23C2929-080	TL-01_ht_20230825_KO_1_5 liver *	Lead	7439-92-1	E472	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Lithium	7439-93-2	E472	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E472	2.0	mg/kg	804	773	3.89%	40%	----
		Manganese	7439-96-5	E472	0.050	mg/kg	4.80	4.28	11.5%	40%	----
		Molybdenum	7439-98-7	E472	0.040	mg/kg	0.616	0.566	8.63%	40%	----
		Nickel	7440-02-0	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E472	10	mg/kg	14400	14200	1.29%	40%	----
		Potassium	7440-09-7	E472	20	mg/kg	14200	14000	1.81%	40%	----
		Rubidium	7440-17-7	E472	0.050	mg/kg	8.76	8.67	1.05%	40%	----
		Selenium	7782-49-2	E472	0.10	mg/kg	3.58	3.11	14.0%	40%	----
		Sodium	7440-23-5	E472	20	mg/kg	6360	6410	0.806%	40%	----
		Strontium	7440-24-6	E472	0.10	mg/kg	0.69	0.57	19.9%	60%	----
		Tellurium	13494-80-9	E472	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E472	0.0020	mg/kg	0.0333	0.0305	8.95%	40%	----
		Tin	7440-31-5	E472	0.10	mg/kg	0.76	0.94	20.2%	40%	----
		Uranium	7440-61-1	E472	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E472	0.10	mg/kg	0.12	0.10	0.02	Diff <2x LOR	----
		Zinc	7440-66-6	E472	1.0	mg/kg	350	364	3.92%	40%	----
		Zirconium	7440-67-7	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 1239886)											
VA23C2929-016	DC-5/DC-15_ef_20230824_RB_8	Aluminum	7429-90-5	E472A	1.0	mg/kg wwt	12.3	15.5	22.9%	40%	----
		Antimony	7440-36-0	E472A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E472A	0.0060	mg/kg wwt	0.100	0.0898	11.2%	40%	----
		Barium	7440-39-3	E472A	0.010	mg/kg wwt	0.654	0.918	33.5%	40%	----
		Beryllium	7440-41-7	E472A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E472A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Boron	7440-42-8	E472A	0.20	mg/kg wwt	<0.20	<0.20	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E472A	0.0020	mg/kg wwt	0.0496	0.0479	3.38%	40%	----
		Calcium	7440-70-2	E472A	4.0	mg/kg wwt	4800	5340	10.7%	60%	----
		Cesium	7440-46-2	E472A	0.0010	mg/kg wwt	0.0171	0.0176	2.82%	40%	----
		Chromium	7440-47-3	E472A	0.040	mg/kg wwt	0.061	0.058	0.002	Diff <2x LOR	----
		Cobalt	7440-48-4	E472A	0.0040	mg/kg wwt	0.0473	0.0460	2.89%	40%	----
		Copper	7440-50-8	E472A	0.040	mg/kg wwt	0.989	0.902	9.16%	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: 1239886) - continued											
VA23C2929-016	DC-5/DC-15_ef_20230824_RB_8	Iron	7439-89-6	E472A	1.0	mg/kg wwt	31.0	34.4	10.4%	40%	----
		Lead	7439-92-1	E472A	0.010	mg/kg wwt	0.013	0.015	0.002	Diff <2x LOR	----
		Lithium	7439-93-2	E472A	0.10	mg/kg wwt	<0.10	<0.10	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E472A	0.40	mg/kg wwt	329	308	6.70%	40%	----
		Manganese	7439-96-5	E472A	0.010	mg/kg wwt	6.40	8.22	25.0%	40%	----
		Molybdenum	7439-98-7	E472A	0.0080	mg/kg wwt	0.0277	0.0266	0.0011	Diff <2x LOR	----
		Nickel	7440-02-0	E472A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E472A	2.0	mg/kg wwt	5340	5270	1.49%	40%	----
		Potassium	7440-09-7	E472A	4.0	mg/kg wwt	3170	2980	6.15%	40%	----
		Rubidium	7440-17-7	E472A	0.010	mg/kg wwt	3.58	3.34	6.87%	40%	----
		Selenium	7782-49-2	E472A	0.020	mg/kg wwt	0.713	0.660	7.78%	40%	----
		Sodium	7440-23-5	E472A	4.0	mg/kg wwt	816	793	2.83%	40%	----
		Strontium	7440-24-6	E472A	0.020	mg/kg wwt	5.38	5.90	9.25%	60%	----
		Tellurium	13494-80-9	E472A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Thallium	7440-28-0	E472A	0.00040	mg/kg wwt	0.00615	0.00608	1.24%	40%	----
		Tin	7440-31-5	E472A	0.020	mg/kg wwt	0.076	0.070	0.006	Diff <2x LOR	----
		Uranium	7440-61-1	E472A	0.00040	mg/kg wwt	0.00692	0.00876	23.5%	40%	----
		Vanadium	7440-62-2	E472A	0.020	mg/kg wwt	0.049	0.057	0.008	Diff <2x LOR	----
		Zinc	7440-66-6	E472A	0.20	mg/kg wwt	30.3	28.7	5.62%	40%	----
		Zirconium	7440-67-7	E472A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
Metals (QC Lot: 1239887)											
VA23C2929-016	DC-5/DC-15_ef_20230824_RB_8	Mercury	7439-97-6	E511	0.0050	mg/kg	0.445	0.460	3.31%	40%	----
Metals (QC Lot: 1239888)											
VA23C2929-016	DC-5/DC-15_ef_20230824_RB_8	Mercury	7439-97-6	E511A	0.0010	mg/kg wwt	0.124	0.128	3.31%	40%	----
Metals (QC Lot: 1239889)											
VA23C2929-016	DC-5/DC-15_ef_20230824_RB_8	Aluminum	7429-90-5	E472	5.0	mg/kg	44.5	56.0	22.9%	40%	----
		Antimony	7440-36-0	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E472	0.030	mg/kg	0.362	0.324	11.2%	40%	----
		Barium	7440-39-3	E472	0.050	mg/kg	2.36	3.31	33.5%	40%	----
		Beryllium	7440-41-7	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E472	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----

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: 1239889) - continued											
VA23C2929-016	DC-5/DC-15_ef_20230824 _RB_8	Cadmium	7440-43-9	E472	0.010	mg/kg	0.179	0.173	3.38%	40%	----
		Calcium	7440-70-2	E472	20	mg/kg	17300	19200	10.7%	60%	----
		Cesium	7440-46-2	E472	0.0050	mg/kg	0.0615	0.0632	2.82%	40%	----
		Chromium	7440-47-3	E472	0.20	mg/kg	0.22	0.21	0.009	Diff <2x LOR	----
		Cobalt	7440-48-4	E472	0.020	mg/kg	0.170	0.166	2.89%	40%	----
		Copper	7440-50-8	E472	0.20	mg/kg	3.56	3.25	9.16%	40%	----
		Iron	7439-89-6	E472	5.0	mg/kg	112	124	10.4%	40%	----
		Lead	7439-92-1	E472	0.050	mg/kg	<0.050	0.055	0.005	Diff <2x LOR	----
		Lithium	7439-93-2	E472	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E472	2.0	mg/kg	1190	1110	6.70%	40%	----
		Manganese	7439-96-5	E472	0.050	mg/kg	23.0	29.6	25.0%	40%	----
		Molybdenum	7439-98-7	E472	0.040	mg/kg	0.100	0.096	0.004	Diff <2x LOR	----
		Nickel	7440-02-0	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E472	10	mg/kg	19200	19000	1.49%	40%	----
		Potassium	7440-09-7	E472	20	mg/kg	11400	10700	6.15%	40%	----
		Rubidium	7440-17-7	E472	0.050	mg/kg	12.9	12.0	6.87%	40%	----
		Selenium	7782-49-2	E472	0.10	mg/kg	2.57	2.38	7.78%	40%	----
		Sodium	7440-23-5	E472	20	mg/kg	2940	2860	2.83%	40%	----
		Strontium	7440-24-6	E472	0.10	mg/kg	19.4	21.2	9.25%	60%	----
		Tellurium	13494-80-9	E472	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E472	0.0020	mg/kg	0.0222	0.0219	1.24%	40%	----
		Tin	7440-31-5	E472	0.10	mg/kg	0.27	0.25	0.02	Diff <2x LOR	----
		Uranium	7440-61-1	E472	0.0020	mg/kg	0.0249	0.0316	23.5%	40%	----
		Vanadium	7440-62-2	E472	0.10	mg/kg	0.18	0.21	0.03	Diff <2x LOR	----
		Zinc	7440-66-6	E472	1.0	mg/kg	109	103	5.62%	40%	----
		Zirconium	7440-67-7	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 1246970)											
TY2310084-001	Anonymous	Mercury	7439-97-6	E510A	0.0020	mg/kg wwt	0.339	0.347	2.30%	40%	----
Metals (QC Lot: 1246971)											
TY2310084-001	Anonymous	Aluminum	7429-90-5	E440A	0.40	mg/kg wwt	1.24	1.06	0.18	Diff <2x LOR	----
		Antimony	7440-36-0	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440A	0.0040	mg/kg wwt	0.0978	0.101	3.10%	40%	----
		Barium	7440-39-3	E440A	0.010	mg/kg wwt	0.012	0.010	0.002	Diff <2x LOR	----
		Beryllium	7440-41-7	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----

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: 1246971) - continued											
TY2310084-001	Anonymous	Bismuth	7440-69-9	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Boron	7440-42-8	E440A	0.20	mg/kg wwt	<0.20	<0.20	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440A	0.0010	mg/kg wwt	<0.0010	<0.0010	0	Diff <2x LOR	----
		Calcium	7440-70-2	E440A	4.0	mg/kg wwt	107	117	8.80%	60%	----
		Cesium	7440-46-2	E440A	0.0010	mg/kg wwt	0.0216	0.0227	4.96%	40%	----
		Chromium	7440-47-3	E440A	0.010	mg/kg wwt	0.023	0.023	0.0002	Diff <2x LOR	----
		Cobalt	7440-48-4	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Copper	7440-50-8	E440A	0.020	mg/kg wwt	0.175	0.149	16.1%	40%	----
		Iron	7439-89-6	E440A	0.60	mg/kg wwt	2.84	2.34	0.50	Diff <2x LOR	----
		Lead	7439-92-1	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Lithium	7439-93-2	E440A	0.10	mg/kg wwt	<0.10	<0.10	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440A	0.40	mg/kg wwt	336	338	0.541%	40%	----
		Manganese	7439-96-5	E440A	0.010	mg/kg wwt	0.115	0.113	1.96%	40%	----
		Molybdenum	7439-98-7	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Nickel	7440-02-0	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440A	2.0	mg/kg wwt	2440	2490	2.29%	40%	----
		Potassium	7440-09-7	E440A	4.0	mg/kg wwt	4580	4780	4.11%	40%	----
		Rubidium	7440-17-7	E440A	0.010	mg/kg wwt	9.92	10.2	2.38%	40%	----
		Selenium	7782-49-2	E440A	0.010	mg/kg wwt	0.196	0.197	0.141%	40%	----
		Sodium	7440-23-5	E440A	4.0	mg/kg wwt	258	258	0.330%	40%	----
		Strontium	7440-24-6	E440A	0.010	mg/kg wwt	0.017	0.019	0.002	Diff <2x LOR	----
		Tellurium	13494-80-9	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440A	0.00040	mg/kg wwt	0.00398	0.00380	4.65%	40%	----
		Tin	7440-31-5	E440A	0.020	mg/kg wwt	<0.020	<0.020	0	Diff <2x LOR	----
		Uranium	7440-61-1	E440A	0.00040	mg/kg wwt	<0.00040	<0.00040	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E440A	0.020	mg/kg wwt	<0.020	<0.020	0	Diff <2x LOR	----
		Zinc	7440-66-6	E440A	0.10	mg/kg wwt	3.55	3.52	0.859%	40%	----
		Zirconium	7440-67-7	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
Metals (QC Lot: 1246973)											
TY2310084-001	Anonymous	Aluminum	7429-90-5	E440	2.0	mg/kg	5.8	5.0	0.8	Diff <2x LOR	----
		Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.456	0.471	3.10%	40%	----
		Barium	7440-39-3	E440	0.050	mg/kg	0.056	<0.050	0.006	Diff <2x LOR	----
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----

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: 1246973) - continued											
TY2310084-001	Anonymous	Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E440	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		Calcium	7440-70-2	E440	20	mg/kg	498	544	8.80%	60%	----
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.101	0.106	4.96%	40%	----
		Chromium	7440-47-3	E440	0.050	mg/kg	0.107	0.108	0.0009	Diff <2x LOR	----
		Cobalt	7440-48-4	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Copper	7440-50-8	E440	0.10	mg/kg	0.82	0.70	16.1%	40%	----
		Iron	7439-89-6	E440	3.0	mg/kg	13.2	10.9	2.3	Diff <2x LOR	----
		Lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	2.0	mg/kg	1570	1580	0.541%	40%	----
		Manganese	7439-96-5	E440	0.050	mg/kg	0.538	0.528	1.96%	40%	----
		Molybdenum	7439-98-7	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440	10	mg/kg	11400	11600	2.29%	40%	----
		Potassium	7440-09-7	E440	20	mg/kg	21400	22300	4.11%	40%	----
		Rubidium	7440-17-7	E440	0.050	mg/kg	46.3	47.4	2.38%	40%	----
		Selenium	7782-49-2	E440	0.050	mg/kg	0.917	0.918	0.141%	40%	----
		Sodium	7440-23-5	E440	20	mg/kg	1200	1210	0.330%	40%	----
		Strontium	7440-24-6	E440	0.050	mg/kg	0.081	0.088	0.007	Diff <2x LOR	----
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.0020	mg/kg	0.0186	0.0178	4.65%	40%	----
		Tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Zinc	7440-66-6	E440	0.50	mg/kg	16.6	16.4	0.859%	40%	----
		Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 1246975)											
TY2310084-001	Anonymous	Mercury	7439-97-6	E510	0.0096	mg/kg	1.58	1.62	2.30%	40%	----

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: 1229592)						
Moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 1229593)						
Moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 1229594)						
Moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 1229595)						
Moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 1235630)						
Moisture	----	E144-H	2	%	<2.0	----
Physical Tests (QCLot: 1239277)						
Moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 1239895)						
Moisture	----	E144-H	2	%	<2.0	----
Metals (QCLot: 1232983)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1232984)						
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	<0.40	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	<0.0020	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	<0.0040	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	<0.010	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	<0.0020	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	<0.0020	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	<0.20	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	<0.0010	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	<4.0	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	<0.0010	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	<0.010	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	<0.0040	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	<0.020	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	<0.60	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	<0.0040	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1232984) - continued						
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	<0.10	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	<0.40	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	<0.010	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	<0.0040	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	<0.040	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	<2.0	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	<4.0	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	<0.010	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	<0.010	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	<4.0	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	<0.010	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	<0.0040	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	<0.00040	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	<0.020	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	<0.00040	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	<0.020	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	<0.10	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	<0.040	----
Metals (QCLot: 1232985)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E440	1	mg/kg	<1.0	----
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
Calcium	7440-70-2	E440	20	mg/kg	<20	----
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
Iron	7439-89-6	E440	3	mg/kg	<3.0	----
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1232985) - continued						
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
Phosphorus	7723-14-0	E440	10	mg/kg	<10	----
Potassium	7440-09-7	E440	20	mg/kg	<20	----
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
Sodium	7440-23-5	E440	20	mg/kg	<20	----
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 1232986)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1232991)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1232992)						
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	<0.40	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	<0.0020	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	<0.0040	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	<0.010	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	<0.0020	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	<0.0020	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	<0.20	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	<0.0010	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	<4.0	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	<0.0010	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	<0.010	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	<0.0040	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	<0.020	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1232992) - continued						
Iron	7439-89-6	E440A	0.6	mg/kg wwt	<0.60	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	<0.0040	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	<0.10	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	<0.40	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	<0.010	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	<0.0040	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	<0.040	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	<2.0	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	<4.0	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	<0.010	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	<0.010	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	<4.0	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	<0.010	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	<0.0040	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	<0.00040	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	<0.020	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	<0.00040	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	<0.020	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	<0.10	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	<0.040	----
Metals (QCLot: 1232993)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E440	1	mg/kg	<1.0	----
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
Calcium	7440-70-2	E440	20	mg/kg	<20	----
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
Iron	7439-89-6	E440	3	mg/kg	<3.0	----

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Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1232993) - continued						
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
Phosphorus	7723-14-0	E440	10	mg/kg	<10	----
Potassium	7440-09-7	E440	20	mg/kg	<20	----
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
Sodium	7440-23-5	E440	20	mg/kg	<20	----
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 1232994)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1233006)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1233007)						
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	<0.40	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	<0.0020	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	<0.0040	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	<0.010	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	<0.0020	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	<0.0020	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	<0.20	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	<0.0010	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	<4.0	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	<0.0010	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	<0.010	----

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Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1233007) - continued						
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	<0.0040	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	<0.020	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	<0.60	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	<0.0040	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	<0.10	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	<0.40	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	<0.010	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	<0.0040	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	<0.040	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	<2.0	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	<4.0	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	<0.010	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	<0.010	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	<4.0	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	<0.010	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	<0.0040	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	<0.00040	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	<0.020	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	<0.00040	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	<0.020	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	<0.10	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	<0.040	----
Metals (QCLot: 1233008)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E440	1	mg/kg	<1.0	----
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
Calcium	7440-70-2	E440	20	mg/kg	<20	----
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----

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Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1233008) - continued						
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
Iron	7439-89-6	E440	3	mg/kg	<3.0	----
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
Phosphorus	7723-14-0	E440	10	mg/kg	<10	----
Potassium	7440-09-7	E440	20	mg/kg	<20	----
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
Sodium	7440-23-5	E440	20	mg/kg	<20	----
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 1233009)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1233011)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1233012)						
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	<0.40	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	<0.0020	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	<0.0040	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	<0.010	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	<0.0020	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	<0.0020	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	<0.20	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	<0.0010	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	<4.0	----

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Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1233012) - continued						
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	<0.0010	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	<0.010	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	<0.0040	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	<0.020	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	<0.60	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	<0.0040	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	<0.10	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	<0.40	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	<0.010	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	<0.0040	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	<0.040	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	<2.0	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	<4.0	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	<0.010	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	<0.010	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	<4.0	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	<0.010	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	<0.0040	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	<0.00040	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	<0.020	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	<0.00040	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	<0.020	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	<0.10	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	<0.040	----
Metals (QCLot: 1233013)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E440	1	mg/kg	<1.0	----
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
Calcium	7440-70-2	E440	20	mg/kg	<20	----
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----

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Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1233013) - continued						
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
Iron	7439-89-6	E440	3	mg/kg	<3.0	----
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
Phosphorus	7723-14-0	E440	10	mg/kg	<10	----
Potassium	7440-09-7	E440	20	mg/kg	<20	----
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
Sodium	7440-23-5	E440	20	mg/kg	<20	----
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 1233014)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1235626)						
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	----

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Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1235626) - continued						
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	----
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: 1235627)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1235628)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1235629)						
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	----

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Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1235629) - continued						
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	----
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: 1239886)						
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	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1239886) - continued						
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	----
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: 1239887)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1239888)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1239889)						
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	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1239889) - continued						
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	----
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: 1242502)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1242503)						
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	<0.40	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	<0.0020	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	<0.0040	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1242503) - continued						
Barium	7440-39-3	E440A	0.01	mg/kg wwt	<0.010	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	<0.0020	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	<0.0020	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	<0.20	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	<0.0010	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	<4.0	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	<0.0010	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	<0.010	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	<0.0040	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	<0.020	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	<0.60	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	<0.0040	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	<0.10	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	<0.40	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	<0.010	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	<0.0040	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	<0.040	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	<2.0	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	<4.0	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	<0.010	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	<0.010	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	<4.0	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	<0.010	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	<0.0040	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	<0.00040	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	<0.020	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	<0.00040	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	<0.020	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	<0.10	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	<0.040	----
Metals (QCLot: 1242504)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1242504) - continued						
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E440	1	mg/kg	<1.0	----
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
Calcium	7440-70-2	E440	20	mg/kg	<20	----
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
Iron	7439-89-6	E440	3	mg/kg	<3.0	----
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
Phosphorus	7723-14-0	E440	10	mg/kg	<10	----
Potassium	7440-09-7	E440	20	mg/kg	<20	----
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
Sodium	7440-23-5	E440	20	mg/kg	<20	----
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 1242505)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1246970)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1246971)						
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	<0.40	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1246971) - continued						
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	<0.0020	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	<0.0040	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	<0.010	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	<0.0020	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	<0.0020	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	<0.20	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	<0.0010	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	<4.0	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	<0.0010	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	<0.010	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	<0.0040	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	<0.020	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	<0.60	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	<0.0040	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	<0.10	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	<0.40	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	<0.010	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	<0.0040	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	<0.040	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	<2.0	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	<4.0	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	<0.010	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	<0.010	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	<4.0	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	<0.010	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	<0.0040	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	<0.00040	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	<0.020	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	<0.00040	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	<0.020	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	<0.10	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	<0.040	----
Metals (QCLot: 1246973)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1246973) - continued						
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E440	1	mg/kg	<1.0	----
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
Calcium	7440-70-2	E440	20	mg/kg	<20	----
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
Iron	7439-89-6	E440	3	mg/kg	<3.0	----
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
Phosphorus	7723-14-0	E440	10	mg/kg	<10	----
Potassium	7440-09-7	E440	20	mg/kg	<20	----
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
Sodium	7440-23-5	E440	20	mg/kg	<20	----
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 1246975)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----

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	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1229592)									
Moisture	----	E144	0.5	%	50 %	100	90.0	110	----
Physical Tests (QCLot: 1229593)									
Moisture	----	E144	0.5	%	50 %	99.9	90.0	110	----
Physical Tests (QCLot: 1229594)									
Moisture	----	E144	0.5	%	50 %	100	90.0	110	----
Physical Tests (QCLot: 1229595)									
Moisture	----	E144	0.5	%	50 %	100	90.0	110	----
Physical Tests (QCLot: 1235630)									
Moisture	----	E144-H	2	%	100 %	100	90.0	110	----
Physical Tests (QCLot: 1239277)									
Moisture	----	E144	0.5	%	50 %	100	90.0	110	----
Physical Tests (QCLot: 1239895)									
Moisture	----	E144-H	2	%	100 %	100	90.0	110	----
Metals (QCLot: 1232983)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	101	80.0	120	----
Metals (QCLot: 1232984)									
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	20 mg/kg wwt	107	80.0	120	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	10 mg/kg wwt	106	80.0	120	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	10 mg/kg wwt	104	80.0	120	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	108	80.0	120	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	1 mg/kg wwt	103	80.0	120	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	10 mg/kg wwt	104	80.0	120	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	10 mg/kg wwt	98.3	80.0	120	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	1 mg/kg wwt	104	80.0	120	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	500 mg/kg wwt	103	80.0	120	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	0.5 mg/kg wwt	102	80.0	120	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	106	80.0	120	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	104	80.0	120	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	2.5 mg/kg wwt	102	80.0	120	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	10 mg/kg wwt	108	80.0	120	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	5 mg/kg wwt	104	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1232984) - continued									
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	2.5 mg/kg wwt	104	80.0	120	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	500 mg/kg wwt	107	80.0	120	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	106	80.0	120	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	104	80.0	120	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	5 mg/kg wwt	103	80.0	120	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	100 mg/kg wwt	110	80.0	120	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	500 mg/kg wwt	108	80.0	120	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	1 mg/kg wwt	101	80.0	120	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	10 mg/kg wwt	98.0	80.0	120	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	500 mg/kg wwt	109	80.0	120	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	107	80.0	120	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	1 mg/kg wwt	102	80.0	120	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	10 mg/kg wwt	102	80.0	120	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	5 mg/kg wwt	103	80.0	120	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	0.05 mg/kg wwt	99.7	80.0	120	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	5 mg/kg wwt	108	80.0	120	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	5 mg/kg wwt	100	80.0	120	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	1 mg/kg wwt	105	80.0	120	----
Metals (QCLot: 1232985)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	107	80.0	120	----
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	106	80.0	120	----
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	104	80.0	120	----
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	108	80.0	120	----
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	103	80.0	120	----
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	104	80.0	120	----
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	98.3	80.0	120	----
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	104	80.0	120	----
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	103	80.0	120	----
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	102	80.0	120	----
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	106	80.0	120	----
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	104	80.0	120	----
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	102	80.0	120	----
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	108	80.0	120	----
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	104	80.0	120	----
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	104	80.0	120	----
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	107	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1232985) - continued									
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	106	80.0	120	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	104	80.0	120	----
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	103	80.0	120	----
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	110	80.0	120	----
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	108	80.0	120	----
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	101	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	98.0	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	109	80.0	120	----
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	107	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	102	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	102	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	103	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	99.7	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	108	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	100	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	105	80.0	120	----
Metals (QCLot: 1232986)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	101	80.0	120	----
Metals (QCLot: 1232991)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	100	80.0	120	----
Metals (QCLot: 1232992)									
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	20 mg/kg wwt	86.4	80.0	120	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	10 mg/kg wwt	98.0	80.0	120	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	10 mg/kg wwt	95.2	80.0	120	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	87.8	80.0	120	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	1 mg/kg wwt	85.4	80.0	120	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	10 mg/kg wwt	82.9	80.0	120	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	10 mg/kg wwt	88.3	80.0	120	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	1 mg/kg wwt	84.9	80.0	120	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	500 mg/kg wwt	84.0	80.0	120	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	0.5 mg/kg wwt	83.2	80.0	120	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	85.2	80.0	120	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	83.7	80.0	120	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	2.5 mg/kg wwt	83.3	80.0	120	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	10 mg/kg wwt	87.9	80.0	120	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	5 mg/kg wwt	86.0	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1232992) - continued									
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	2.5 mg/kg wwt	86.0	80.0	120	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	500 mg/kg wwt	84.0	80.0	120	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	84.3	80.0	120	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	95.3	80.0	120	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	5 mg/kg wwt	83.3	80.0	120	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	100 mg/kg wwt	99.7	80.0	120	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	500 mg/kg wwt	89.4	80.0	120	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	1 mg/kg wwt	83.3	80.0	120	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	10 mg/kg wwt	92.7	80.0	120	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	500 mg/kg wwt	87.3	80.0	120	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	87.2	80.0	120	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	1 mg/kg wwt	94.9	80.0	120	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	10 mg/kg wwt	82.2	80.0	120	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	5 mg/kg wwt	93.5	80.0	120	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	0.05 mg/kg wwt	82.3	80.0	120	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	5 mg/kg wwt	85.7	80.0	120	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	5 mg/kg wwt	83.8	80.0	120	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	1 mg/kg wwt	95.3	80.0	120	----
Metals (QCLot: 1232993)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	86.4	80.0	120	----
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	98.0	80.0	120	----
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	95.2	80.0	120	----
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	87.8	80.0	120	----
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	85.4	80.0	120	----
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	82.9	80.0	120	----
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	88.3	80.0	120	----
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	84.9	80.0	120	----
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	84.0	80.0	120	----
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	83.2	80.0	120	----
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	85.2	80.0	120	----
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	83.7	80.0	120	----
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	83.3	80.0	120	----
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	87.9	80.0	120	----
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	86.0	80.0	120	----
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	86.0	80.0	120	----
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	84.0	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1232993) - continued									
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	84.3	80.0	120	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	95.3	80.0	120	----
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	83.3	80.0	120	----
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	99.7	80.0	120	----
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	89.4	80.0	120	----
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	83.3	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	92.7	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	87.3	80.0	120	----
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	87.2	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	94.9	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	82.2	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	93.5	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	82.3	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	85.7	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	83.8	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	95.3	80.0	120	----
Metals (QCLot: 1232994)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	100	80.0	120	----
Metals (QCLot: 1233006)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	101	80.0	120	----
Metals (QCLot: 1233007)									
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	20 mg/kg wwt	97.2	80.0	120	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	10 mg/kg wwt	102	80.0	120	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	10 mg/kg wwt	100	80.0	120	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	97.4	80.0	120	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	1 mg/kg wwt	99.1	80.0	120	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	10 mg/kg wwt	97.0	80.0	120	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	10 mg/kg wwt	93.4	80.0	120	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	1 mg/kg wwt	95.5	80.0	120	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	500 mg/kg wwt	96.7	80.0	120	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	0.5 mg/kg wwt	99.8	80.0	120	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	97.1	80.0	120	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	95.7	80.0	120	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	2.5 mg/kg wwt	94.2	80.0	120	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	10 mg/kg wwt	99.7	80.0	120	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	5 mg/kg wwt	97.9	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1233007) - continued									
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	2.5 mg/kg wwt	97.7	80.0	120	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	500 mg/kg wwt	97.3	80.0	120	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	96.9	80.0	120	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	100	80.0	120	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	5 mg/kg wwt	94.8	80.0	120	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	100 mg/kg wwt	104	80.0	120	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	500 mg/kg wwt	99.1	80.0	120	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	1 mg/kg wwt	97.6	80.0	120	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	10 mg/kg wwt	93.8	80.0	120	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	500 mg/kg wwt	98.3	80.0	120	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	104	80.0	120	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	1 mg/kg wwt	99.7	80.0	120	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	10 mg/kg wwt	96.8	80.0	120	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	5 mg/kg wwt	97.8	80.0	120	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	0.05 mg/kg wwt	98.9	80.0	120	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	5 mg/kg wwt	98.6	80.0	120	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	5 mg/kg wwt	93.1	80.0	120	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	1 mg/kg wwt	101	80.0	120	----
Metals (QCLot: 1233008)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	97.2	80.0	120	----
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	102	80.0	120	----
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	100	80.0	120	----
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	97.4	80.0	120	----
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	99.1	80.0	120	----
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	97.0	80.0	120	----
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	93.4	80.0	120	----
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	95.5	80.0	120	----
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	96.7	80.0	120	----
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	99.8	80.0	120	----
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	97.1	80.0	120	----
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	95.7	80.0	120	----
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	94.2	80.0	120	----
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	99.7	80.0	120	----
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	97.9	80.0	120	----
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	97.7	80.0	120	----
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	97.3	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1233008) - continued									
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	96.9	80.0	120	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	100	80.0	120	----
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	94.8	80.0	120	----
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	104	80.0	120	----
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	99.1	80.0	120	----
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	97.6	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	93.8	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	98.3	80.0	120	----
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	104	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	99.7	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	96.8	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	97.8	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	98.9	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	98.6	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	93.1	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	101	80.0	120	----
Metals (QCLot: 1233009)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	101	80.0	120	----
Metals (QCLot: 1233011)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	99.6	80.0	120	----
Metals (QCLot: 1233012)									
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	20 mg/kg wwt	101	80.0	120	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	10 mg/kg wwt	100	80.0	120	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	10 mg/kg wwt	97.4	80.0	120	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	100	80.0	120	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	1 mg/kg wwt	95.4	80.0	120	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	10 mg/kg wwt	99.6	80.0	120	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	10 mg/kg wwt	93.4	80.0	120	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	1 mg/kg wwt	95.3	80.0	120	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	500 mg/kg wwt	95.4	80.0	120	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	0.5 mg/kg wwt	96.0	80.0	120	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	96.7	80.0	120	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	95.9	80.0	120	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	2.5 mg/kg wwt	93.5	80.0	120	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	10 mg/kg wwt	100	80.0	120	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	5 mg/kg wwt	102	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1233012) - continued									
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	2.5 mg/kg wwt	98.3	80.0	120	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	500 mg/kg wwt	96.5	80.0	120	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	95.8	80.0	120	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	99.6	80.0	120	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	5 mg/kg wwt	94.6	80.0	120	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	100 mg/kg wwt	105	80.0	120	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	500 mg/kg wwt	97.2	80.0	120	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	1 mg/kg wwt	94.9	80.0	120	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	10 mg/kg wwt	93.6	80.0	120	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	500 mg/kg wwt	98.6	80.0	120	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	99.8	80.0	120	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	1 mg/kg wwt	95.4	80.0	120	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	10 mg/kg wwt	101	80.0	120	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	5 mg/kg wwt	97.2	80.0	120	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	0.05 mg/kg wwt	97.0	80.0	120	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	5 mg/kg wwt	98.4	80.0	120	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	5 mg/kg wwt	91.8	80.0	120	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	1 mg/kg wwt	99.6	80.0	120	----
Metals (QCLot: 1233013)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	101	80.0	120	----
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	100	80.0	120	----
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	97.4	80.0	120	----
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	100	80.0	120	----
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	95.4	80.0	120	----
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	99.6	80.0	120	----
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	93.4	80.0	120	----
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	95.3	80.0	120	----
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	95.4	80.0	120	----
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	96.0	80.0	120	----
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	96.7	80.0	120	----
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	95.9	80.0	120	----
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	93.5	80.0	120	----
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	100	80.0	120	----
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	102	80.0	120	----
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	98.3	80.0	120	----
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	96.5	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1233013) - continued									
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	95.8	80.0	120	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	99.6	80.0	120	----
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	94.6	80.0	120	----
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	105	80.0	120	----
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	97.2	80.0	120	----
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	94.9	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	93.6	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	98.6	80.0	120	----
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	99.8	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	95.4	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	101	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	97.2	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	97.0	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	98.4	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	91.8	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	99.6	80.0	120	----
Metals (QCLot: 1233014)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	99.6	80.0	120	----
Metals (QCLot: 1235626)									
Aluminum	7429-90-5	E472A	1	mg/kg wwt	20 mg/kg wwt	93.8	80.0	120	----
Antimony	7440-36-0	E472A	0.002	mg/kg wwt	10 mg/kg wwt	96.0	80.0	120	----
Arsenic	7440-38-2	E472A	0.006	mg/kg wwt	10 mg/kg wwt	94.4	80.0	120	----
Barium	7440-39-3	E472A	0.01	mg/kg wwt	2.5 mg/kg wwt	92.5	80.0	120	----
Beryllium	7440-41-7	E472A	0.002	mg/kg wwt	1 mg/kg wwt	90.0	80.0	120	----
Bismuth	7440-69-9	E472A	0.002	mg/kg wwt	10 mg/kg wwt	89.7	80.0	120	----
Boron	7440-42-8	E472A	0.2	mg/kg wwt	10 mg/kg wwt	91.7	80.0	120	----
Cadmium	7440-43-9	E472A	0.002	mg/kg wwt	1 mg/kg wwt	91.4	80.0	120	----
Calcium	7440-70-2	E472A	4	mg/kg wwt	500 mg/kg wwt	86.3	80.0	120	----
Cesium	7440-46-2	E472A	0.001	mg/kg wwt	0.5 mg/kg wwt	94.4	80.0	120	----
Chromium	7440-47-3	E472A	0.04	mg/kg wwt	2.5 mg/kg wwt	92.9	80.0	120	----
Cobalt	7440-48-4	E472A	0.004	mg/kg wwt	2.5 mg/kg wwt	90.5	80.0	120	----
Copper	7440-50-8	E472A	0.04	mg/kg wwt	2.5 mg/kg wwt	88.0	80.0	120	----
Iron	7439-89-6	E472A	1	mg/kg wwt	10 mg/kg wwt	94.0	80.0	120	----
Lead	7439-92-1	E472A	0.01	mg/kg wwt	5 mg/kg wwt	90.2	80.0	120	----
Lithium	7439-93-2	E472A	0.1	mg/kg wwt	2.5 mg/kg wwt	95.0	80.0	120	----
Magnesium	7439-95-4	E472A	0.4	mg/kg wwt	500 mg/kg wwt	92.9	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1235626) - continued									
Manganese	7439-96-5	E472A	0.01	mg/kg wwt	2.5 mg/kg wwt	92.1	80.0	120	----
Molybdenum	7439-98-7	E472A	0.008	mg/kg wwt	2.5 mg/kg wwt	99.0	80.0	120	----
Nickel	7440-02-0	E472A	0.04	mg/kg wwt	5 mg/kg wwt	89.0	80.0	120	----
Phosphorus	7723-14-0	E472A	2	mg/kg wwt	100 mg/kg wwt	97.3	80.0	120	----
Potassium	7440-09-7	E472A	4	mg/kg wwt	500 mg/kg wwt	93.6	80.0	120	----
Rubidium	7440-17-7	E472A	0.01	mg/kg wwt	1 mg/kg wwt	89.8	80.0	120	----
Selenium	7782-49-2	E472A	0.02	mg/kg wwt	10 mg/kg wwt	90.2	80.0	120	----
Sodium	7440-23-5	E472A	4	mg/kg wwt	500 mg/kg wwt	93.0	80.0	120	----
Strontium	7440-24-6	E472A	0.02	mg/kg wwt	2.5 mg/kg wwt	93.7	80.0	120	----
Tellurium	13494-80-9	E472A	0.004	mg/kg wwt	1 mg/kg wwt	91.9	80.0	120	----
Thallium	7440-28-0	E472A	0.0004	mg/kg wwt	10 mg/kg wwt	89.3	80.0	120	----
Tin	7440-31-5	E472A	0.02	mg/kg wwt	5 mg/kg wwt	94.6	80.0	120	----
Uranium	7440-61-1	E472A	0.0004	mg/kg wwt	0.05 mg/kg wwt	90.9	80.0	120	----
Vanadium	7440-62-2	E472A	0.02	mg/kg wwt	5 mg/kg wwt	94.1	80.0	120	----
Zinc	7440-66-6	E472A	0.2	mg/kg wwt	5 mg/kg wwt	86.8	80.0	120	----
Zirconium	7440-67-7	E472A	0.04	mg/kg wwt	1 mg/kg wwt	99.1	80.0	120	----
Metals (QCLot: 1235627)									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	95.2	80.0	120	----
Metals (QCLot: 1235628)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	95.2	80.0	120	----
Metals (QCLot: 1235629)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	93.8	80.0	120	----
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	96.0	80.0	120	----
Arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	94.4	80.0	120	----
Barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	92.5	80.0	120	----
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	90.0	80.0	120	----
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	89.7	80.0	120	----
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	91.7	80.0	120	----
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	91.4	80.0	120	----
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	86.3	80.0	120	----
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	94.4	80.0	120	----
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	92.9	80.0	120	----
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	90.5	80.0	120	----
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	88.0	80.0	120	----
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	94.0	80.0	120	----
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	90.2	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1235629) - continued									
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	95.0	80.0	120	----
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	92.9	80.0	120	----
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	92.1	80.0	120	----
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	99.0	80.0	120	----
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	89.0	80.0	120	----
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	97.3	80.0	120	----
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	93.6	80.0	120	----
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	89.8	80.0	120	----
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	90.2	80.0	120	----
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	93.0	80.0	120	----
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	93.7	80.0	120	----
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	91.9	80.0	120	----
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	89.3	80.0	120	----
Tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	94.6	80.0	120	----
Uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	90.9	80.0	120	----
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	94.1	80.0	120	----
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	86.8	80.0	120	----
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	99.1	80.0	120	----
Metals (QCLot: 1239886)									
Aluminum	7429-90-5	E472A	1	mg/kg wwt	20 mg/kg wwt	102	80.0	120	----
Antimony	7440-36-0	E472A	0.002	mg/kg wwt	10 mg/kg wwt	95.6	80.0	120	----
Arsenic	7440-38-2	E472A	0.006	mg/kg wwt	10 mg/kg wwt	101	80.0	120	----
Barium	7440-39-3	E472A	0.01	mg/kg wwt	2.5 mg/kg wwt	102	80.0	120	----
Beryllium	7440-41-7	E472A	0.002	mg/kg wwt	1 mg/kg wwt	94.8	80.0	120	----
Bismuth	7440-69-9	E472A	0.002	mg/kg wwt	10 mg/kg wwt	94.2	80.0	120	----
Boron	7440-42-8	E472A	0.2	mg/kg wwt	10 mg/kg wwt	93.2	80.0	120	----
Cadmium	7440-43-9	E472A	0.002	mg/kg wwt	1 mg/kg wwt	95.8	80.0	120	----
Calcium	7440-70-2	E472A	4	mg/kg wwt	500 mg/kg wwt	89.4	80.0	120	----
Cesium	7440-46-2	E472A	0.001	mg/kg wwt	0.5 mg/kg wwt	104	80.0	120	----
Chromium	7440-47-3	E472A	0.04	mg/kg wwt	2.5 mg/kg wwt	97.3	80.0	120	----
Cobalt	7440-48-4	E472A	0.004	mg/kg wwt	2.5 mg/kg wwt	94.4	80.0	120	----
Copper	7440-50-8	E472A	0.04	mg/kg wwt	2.5 mg/kg wwt	92.3	80.0	120	----
Iron	7439-89-6	E472A	1	mg/kg wwt	10 mg/kg wwt	94.2	80.0	120	----
Lead	7439-92-1	E472A	0.01	mg/kg wwt	5 mg/kg wwt	94.5	80.0	120	----
Lithium	7439-93-2	E472A	0.1	mg/kg wwt	2.5 mg/kg wwt	95.2	80.0	120	----
Magnesium	7439-95-4	E472A	0.4	mg/kg wwt	500 mg/kg wwt	94.0	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1239886) - continued									
Manganese	7439-96-5	E472A	0.01	mg/kg wwt	2.5 mg/kg wwt	96.5	80.0	120	----
Molybdenum	7439-98-7	E472A	0.008	mg/kg wwt	2.5 mg/kg wwt	102	80.0	120	----
Nickel	7440-02-0	E472A	0.04	mg/kg wwt	5 mg/kg wwt	94.5	80.0	120	----
Phosphorus	7723-14-0	E472A	2	mg/kg wwt	100 mg/kg wwt	104	80.0	120	----
Potassium	7440-09-7	E472A	4	mg/kg wwt	500 mg/kg wwt	101	80.0	120	----
Rubidium	7440-17-7	E472A	0.01	mg/kg wwt	1 mg/kg wwt	95.9	80.0	120	----
Selenium	7782-49-2	E472A	0.02	mg/kg wwt	10 mg/kg wwt	92.8	80.0	120	----
Sodium	7440-23-5	E472A	4	mg/kg wwt	500 mg/kg wwt	96.8	80.0	120	----
Strontium	7440-24-6	E472A	0.02	mg/kg wwt	2.5 mg/kg wwt	98.8	80.0	120	----
Tellurium	13494-80-9	E472A	0.004	mg/kg wwt	1 mg/kg wwt	97.0	80.0	120	----
Thallium	7440-28-0	E472A	0.0004	mg/kg wwt	10 mg/kg wwt	93.9	80.0	120	----
Tin	7440-31-5	E472A	0.02	mg/kg wwt	5 mg/kg wwt	96.0	80.0	120	----
Uranium	7440-61-1	E472A	0.0004	mg/kg wwt	0.05 mg/kg wwt	97.0	80.0	120	----
Vanadium	7440-62-2	E472A	0.02	mg/kg wwt	5 mg/kg wwt	98.4	80.0	120	----
Zinc	7440-66-6	E472A	0.2	mg/kg wwt	5 mg/kg wwt	93.2	80.0	120	----
Zirconium	7440-67-7	E472A	0.04	mg/kg wwt	1 mg/kg wwt	102	80.0	120	----
Metals (QCLot: 1239887)									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	102	80.0	120	----
Metals (QCLot: 1239888)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	102	80.0	120	----
Metals (QCLot: 1239889)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	102	80.0	120	----
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	95.6	80.0	120	----
Arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	101	80.0	120	----
Barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	102	80.0	120	----
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	94.8	80.0	120	----
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	94.2	80.0	120	----
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	93.2	80.0	120	----
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	95.8	80.0	120	----
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	89.4	80.0	120	----
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	104	80.0	120	----
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	97.3	80.0	120	----
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	94.4	80.0	120	----
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	92.3	80.0	120	----
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	94.2	80.0	120	----
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	94.5	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1239889) - continued									
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	95.2	80.0	120	----
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	94.0	80.0	120	----
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	96.5	80.0	120	----
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	102	80.0	120	----
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	94.5	80.0	120	----
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	104	80.0	120	----
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	101	80.0	120	----
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	95.9	80.0	120	----
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	92.8	80.0	120	----
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	96.8	80.0	120	----
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	98.8	80.0	120	----
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	97.0	80.0	120	----
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	93.9	80.0	120	----
Tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	96.0	80.0	120	----
Uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	97.0	80.0	120	----
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	98.4	80.0	120	----
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	93.2	80.0	120	----
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	102	80.0	120	----
Metals (QCLot: 1242502)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	99.3	80.0	120	----
Metals (QCLot: 1242503)									
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	20 mg/kg wwt	106	80.0	120	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	10 mg/kg wwt	98.7	80.0	120	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	10 mg/kg wwt	106	80.0	120	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	107	80.0	120	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	1 mg/kg wwt	102	80.0	120	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	10 mg/kg wwt	107	80.0	120	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	10 mg/kg wwt	98.3	80.0	120	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	1 mg/kg wwt	98.5	80.0	120	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	500 mg/kg wwt	104	80.0	120	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	0.5 mg/kg wwt	103	80.0	120	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	107	80.0	120	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	104	80.0	120	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	2.5 mg/kg wwt	102	80.0	120	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	10 mg/kg wwt	107	80.0	120	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	5 mg/kg wwt	106	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1242503) - continued									
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	2.5 mg/kg wwt	105	80.0	120	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	500 mg/kg wwt	105	80.0	120	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	105	80.0	120	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	103	80.0	120	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	5 mg/kg wwt	105	80.0	120	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	100 mg/kg wwt	112	80.0	120	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	500 mg/kg wwt	107	80.0	120	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	1 mg/kg wwt	105	80.0	120	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	10 mg/kg wwt	102	80.0	120	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	500 mg/kg wwt	107	80.0	120	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	104	80.0	120	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	1 mg/kg wwt	98.3	80.0	120	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	10 mg/kg wwt	104	80.0	120	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	5 mg/kg wwt	98.2	80.0	120	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	0.05 mg/kg wwt	103	80.0	120	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	5 mg/kg wwt	108	80.0	120	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	5 mg/kg wwt	101	80.0	120	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	1 mg/kg wwt	101	80.0	120	----
Metals (QCLot: 1242504)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	106	80.0	120	----
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	98.7	80.0	120	----
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	106	80.0	120	----
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	107	80.0	120	----
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	102	80.0	120	----
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	107	80.0	120	----
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	98.3	80.0	120	----
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	98.5	80.0	120	----
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	104	80.0	120	----
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	103	80.0	120	----
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	107	80.0	120	----
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	104	80.0	120	----
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	102	80.0	120	----
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	107	80.0	120	----
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	106	80.0	120	----
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	105	80.0	120	----
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	105	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1242504) - continued									
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	105	80.0	120	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	103	80.0	120	----
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	105	80.0	120	----
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	112	80.0	120	----
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	107	80.0	120	----
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	105	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	102	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	107	80.0	120	----
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	104	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	98.3	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	104	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	98.2	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	103	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	108	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	101	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	101	80.0	120	----
Metals (QCLot: 1242505)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	99.3	80.0	120	----
Metals (QCLot: 1246970)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	103	80.0	120	----
Metals (QCLot: 1246971)									
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	20 mg/kg wwt	112	80.0	120	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	10 mg/kg wwt	104	80.0	120	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	10 mg/kg wwt	115	80.0	120	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	114	80.0	120	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	1 mg/kg wwt	106	80.0	120	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	10 mg/kg wwt	105	80.0	120	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	10 mg/kg wwt	104	80.0	120	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	1 mg/kg wwt	104	80.0	120	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	500 mg/kg wwt	107	80.0	120	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	0.5 mg/kg wwt	108	80.0	120	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	111	80.0	120	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	109	80.0	120	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	2.5 mg/kg wwt	108	80.0	120	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	10 mg/kg wwt	112	80.0	120	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	5 mg/kg wwt	109	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1246971) - continued									
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	2.5 mg/kg wwt	106	80.0	120	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	500 mg/kg wwt	111	80.0	120	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	110	80.0	120	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	104	80.0	120	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	5 mg/kg wwt	109	80.0	120	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	100 mg/kg wwt	118	80.0	120	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	500 mg/kg wwt	116	80.0	120	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	1 mg/kg wwt	110	80.0	120	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	10 mg/kg wwt	110	80.0	120	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	500 mg/kg wwt	114	80.0	120	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	107	80.0	120	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	1 mg/kg wwt	103	80.0	120	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	10 mg/kg wwt	105	80.0	120	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	5 mg/kg wwt	105	80.0	120	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	0.05 mg/kg wwt	110	80.0	120	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	5 mg/kg wwt	112	80.0	120	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	5 mg/kg wwt	108	80.0	120	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	1 mg/kg wwt	106	80.0	120	----
Metals (QCLot: 1246973)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	112	80.0	120	----
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	104	80.0	120	----
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	115	80.0	120	----
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	114	80.0	120	----
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	106	80.0	120	----
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	105	80.0	120	----
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	104	80.0	120	----
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	104	80.0	120	----
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	107	80.0	120	----
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	108	80.0	120	----
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	111	80.0	120	----
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	109	80.0	120	----
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	108	80.0	120	----
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	112	80.0	120	----
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	109	80.0	120	----
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	106	80.0	120	----
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	111	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1246973) - continued									
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	110	80.0	120	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	104	80.0	120	----
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	109	80.0	120	----
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	118	80.0	120	----
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	116	80.0	120	----
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	110	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	110	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	114	80.0	120	----
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	107	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	103	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	105	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	105	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	110	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	112	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	108	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	106	80.0	120	----
Metals (QCLot: 1246975)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	103	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: 1232983)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	106	70.0	130	----
Metals (QCLot: 1232984)									
	RM	Aluminum	7429-90-5	E440A	147 mg/kg wwt	103	70.0	130	----
	RM	Arsenic	7440-38-2	E440A	14.5 mg/kg wwt	91.7	70.0	130	----
	RM	Barium	7440-39-3	E440A	0.352 mg/kg wwt	94.6	70.0	130	----
	RM	Boron	7440-42-8	E440A	3.47 mg/kg wwt	95.8	70.0	130	----
	RM	Cadmium	7440-43-9	E440A	0.153 mg/kg wwt	95.7	70.0	130	----
	RM	Calcium	7440-70-2	E440A	2010 mg/kg wwt	93.0	70.0	130	----
	RM	Cesium	7440-46-2	E440A	0.0889 mg/kg wwt	93.7	70.0	130	----
	RM	Chromium	7440-47-3	E440A	0.453 mg/kg wwt	103	70.0	130	----
	RM	Cobalt	7440-48-4	E440A	0.0567 mg/kg wwt	98.4	65.0	135	----
	RM	Copper	7440-50-8	E440A	3.3 mg/kg wwt	93.8	70.0	130	----
	RM	Iron	7439-89-6	E440A	102 mg/kg wwt	97.2	70.0	130	----
	RM	Lead	7439-92-1	E440A	0.058 mg/kg wwt	94.3	70.0	130	----
	RM	Magnesium	7439-95-4	E440A	899 mg/kg wwt	97.1	70.0	130	----
	RM	Manganese	7439-96-5	E440A	0.948 mg/kg wwt	93.7	70.0	130	----
	RM	Molybdenum	7439-98-7	E440A	0.134 mg/kg wwt	90.8	70.0	130	----
	RM	Nickel	7440-02-0	E440A	0.33 mg/kg wwt	108	40.0	160	----
	RM	Phosphorus	7723-14-0	E440A	6700 mg/kg wwt	96.6	70.0	130	----
	RM	Potassium	7440-09-7	E440A	11600 mg/kg wwt	97.6	70.0	130	----
	RM	Rubidium	7440-17-7	E440A	2.53 mg/kg wwt	92.7	70.0	130	----
	RM	Selenium	7782-49-2	E440A	2.48 mg/kg wwt	96.7	70.0	130	----
	RM	Sodium	7440-23-5	E440A	9620 mg/kg wwt	97.8	70.0	130	----
	RM	Strontium	7440-24-6	E440A	10.6 mg/kg wwt	96.9	70.0	130	----
	RM	Vanadium	7440-62-2	E440A	0.269 mg/kg wwt	95.7	70.0	130	----
	RM	Zinc	7440-66-6	E440A	28.7 mg/kg wwt	93.0	70.0	130	----
Metals (QCLot: 1232985)									

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: 1232985) - continued									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	103	70.0	130	----
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	91.7	70.0	130	----
	RM	Barium	7440-39-3	E440	0.352 mg/kg	94.6	70.0	130	----
	RM	Boron	7440-42-8	E440	3.47 mg/kg	95.8	70.0	130	----
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	95.7	70.0	130	----
	RM	Calcium	7440-70-2	E440	2010 mg/kg	93.0	70.0	130	----
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	93.7	70.0	130	----
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	103	70.0	130	----
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	98.4	65.0	135	----
	RM	Copper	7440-50-8	E440	3.3 mg/kg	93.8	70.0	130	----
	RM	Iron	7439-89-6	E440	102 mg/kg	97.2	70.0	130	----
	RM	Lead	7439-92-1	E440	0.058 mg/kg	94.3	70.0	130	----
	RM	Magnesium	7439-95-4	E440	899 mg/kg	97.1	70.0	130	----
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	93.7	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	90.8	70.0	130	----
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	108	40.0	160	----
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	96.6	70.0	130	----
	RM	Potassium	7440-09-7	E440	11600 mg/kg	97.6	70.0	130	----
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	92.7	70.0	130	----
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	96.7	70.0	130	----
	RM	Sodium	7440-23-5	E440	9620 mg/kg	97.8	70.0	130	----
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	96.9	70.0	130	----
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	95.7	70.0	130	----
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	93.0	70.0	130	----
Metals (QCLot: 1232986)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	106	70.0	130	----
Metals (QCLot: 1232991)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	105	70.0	130	----
Metals (QCLot: 1232992)									
	RM	Aluminum	7429-90-5	E440A	147 mg/kg wwt	92.2	70.0	130	----
	RM	Arsenic	7440-38-2	E440A	14.5 mg/kg wwt	90.9	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: 1232992) - continued									
	RM	Barium	7440-39-3	E440A	0.352 mg/kg wwt	96.1	70.0	130	----
	RM	Boron	7440-42-8	E440A	3.47 mg/kg wwt	96.2	70.0	130	----
	RM	Cadmium	7440-43-9	E440A	0.153 mg/kg wwt	93.3	70.0	130	----
	RM	Calcium	7440-70-2	E440A	2010 mg/kg wwt	101	70.0	130	----
	RM	Cesium	7440-46-2	E440A	0.0889 mg/kg wwt	92.2	70.0	130	----
	RM	Chromium	7440-47-3	E440A	0.453 mg/kg wwt	88.2	70.0	130	----
	RM	Cobalt	7440-48-4	E440A	0.0567 mg/kg wwt	104	65.0	135	----
	RM	Copper	7440-50-8	E440A	3.3 mg/kg wwt	90.6	70.0	130	----
	RM	Iron	7439-89-6	E440A	102 mg/kg wwt	94.1	70.0	130	----
	RM	Lead	7439-92-1	E440A	0.058 mg/kg wwt	94.0	70.0	130	----
	RM	Magnesium	7439-95-4	E440A	899 mg/kg wwt	92.3	70.0	130	----
	RM	Manganese	7439-96-5	E440A	0.948 mg/kg wwt	93.9	70.0	130	----
	RM	Molybdenum	7439-98-7	E440A	0.134 mg/kg wwt	92.9	70.0	130	----
	RM	Nickel	7440-02-0	E440A	0.33 mg/kg wwt	85.1	40.0	160	----
	RM	Phosphorus	7723-14-0	E440A	6700 mg/kg wwt	94.8	70.0	130	----
	RM	Potassium	7440-09-7	E440A	11600 mg/kg wwt	95.5	70.0	130	----
	RM	Rubidium	7440-17-7	E440A	2.53 mg/kg wwt	91.6	70.0	130	----
	RM	Selenium	7782-49-2	E440A	2.48 mg/kg wwt	94.2	70.0	130	----
	RM	Sodium	7440-23-5	E440A	9620 mg/kg wwt	94.6	70.0	130	----
	RM	Strontium	7440-24-6	E440A	10.6 mg/kg wwt	93.4	70.0	130	----
	RM	Vanadium	7440-62-2	E440A	0.269 mg/kg wwt	91.4	70.0	130	----
	RM	Zinc	7440-66-6	E440A	28.7 mg/kg wwt	94.1	70.0	130	----
Metals (QCLot: 1232993)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	92.2	70.0	130	----
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	90.9	70.0	130	----
	RM	Barium	7440-39-3	E440	0.352 mg/kg	96.1	70.0	130	----
	RM	Boron	7440-42-8	E440	3.47 mg/kg	96.2	70.0	130	----
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	93.3	70.0	130	----
	RM	Calcium	7440-70-2	E440	2010 mg/kg	101	70.0	130	----
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	92.2	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: 1232993) - continued									
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	88.2	70.0	130	----
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	104	65.0	135	----
	RM	Copper	7440-50-8	E440	3.3 mg/kg	90.6	70.0	130	----
	RM	Iron	7439-89-6	E440	102 mg/kg	94.1	70.0	130	----
	RM	Lead	7439-92-1	E440	0.058 mg/kg	94.0	70.0	130	----
	RM	Magnesium	7439-95-4	E440	899 mg/kg	92.3	70.0	130	----
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	93.9	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	92.9	70.0	130	----
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	85.1	40.0	160	----
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	94.8	70.0	130	----
	RM	Potassium	7440-09-7	E440	11600 mg/kg	95.5	70.0	130	----
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	91.6	70.0	130	----
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	94.2	70.0	130	----
	RM	Sodium	7440-23-5	E440	9620 mg/kg	94.6	70.0	130	----
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	93.4	70.0	130	----
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	91.4	70.0	130	----
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	94.1	70.0	130	----
Metals (QCLot: 1232994)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	105	70.0	130	----
Metals (QCLot: 1233006)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	114	70.0	130	----
Metals (QCLot: 1233007)									
	RM	Aluminum	7429-90-5	E440A	147 mg/kg wwt	102	70.0	130	----
	RM	Arsenic	7440-38-2	E440A	14.5 mg/kg wwt	94.9	70.0	130	----
	RM	Barium	7440-39-3	E440A	0.352 mg/kg wwt	90.4	70.0	130	----
	RM	Boron	7440-42-8	E440A	3.47 mg/kg wwt	101	70.0	130	----
	RM	Cadmium	7440-43-9	E440A	0.153 mg/kg wwt	92.1	70.0	130	----
	RM	Calcium	7440-70-2	E440A	2010 mg/kg wwt	93.6	70.0	130	----
	RM	Cesium	7440-46-2	E440A	0.0889 mg/kg wwt	97.6	70.0	130	----
	RM	Chromium	7440-47-3	E440A	0.453 mg/kg wwt	92.3	70.0	130	----
	RM	Cobalt	7440-48-4	E440A	0.0567 mg/kg wwt	99.4	65.0	135	----

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: 1233007) - continued									
	RM	Copper	7440-50-8	E440A	3.3 mg/kg wwt	96.2	70.0	130	----
	RM	Iron	7439-89-6	E440A	102 mg/kg wwt	104	70.0	130	----
	RM	Lead	7439-92-1	E440A	0.058 mg/kg wwt	99.6	70.0	130	----
	RM	Magnesium	7439-95-4	E440A	899 mg/kg wwt	97.6	70.0	130	----
	RM	Manganese	7439-96-5	E440A	0.948 mg/kg wwt	98.1	70.0	130	----
	RM	Molybdenum	7439-98-7	E440A	0.134 mg/kg wwt	98.1	70.0	130	----
	RM	Nickel	7440-02-0	E440A	0.33 mg/kg wwt	95.6	40.0	160	----
	RM	Phosphorus	7723-14-0	E440A	6700 mg/kg wwt	97.9	70.0	130	----
	RM	Potassium	7440-09-7	E440A	11600 mg/kg wwt	99.2	70.0	130	----
	RM	Rubidium	7440-17-7	E440A	2.53 mg/kg wwt	96.4	70.0	130	----
	RM	Selenium	7782-49-2	E440A	2.48 mg/kg wwt	97.3	70.0	130	----
	RM	Sodium	7440-23-5	E440A	9620 mg/kg wwt	101	70.0	130	----
	RM	Strontium	7440-24-6	E440A	10.6 mg/kg wwt	96.1	70.0	130	----
	RM	Vanadium	7440-62-2	E440A	0.269 mg/kg wwt	103	70.0	130	----
	RM	Zinc	7440-66-6	E440A	28.7 mg/kg wwt	97.3	70.0	130	----
Metals (QCLot: 1233008)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	102	70.0	130	----
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	94.9	70.0	130	----
	RM	Barium	7440-39-3	E440	0.352 mg/kg	90.4	70.0	130	----
	RM	Boron	7440-42-8	E440	3.47 mg/kg	101	70.0	130	----
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	92.1	70.0	130	----
	RM	Calcium	7440-70-2	E440	2010 mg/kg	93.6	70.0	130	----
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	97.6	70.0	130	----
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	92.3	70.0	130	----
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	99.4	65.0	135	----
	RM	Copper	7440-50-8	E440	3.3 mg/kg	96.2	70.0	130	----
	RM	Iron	7439-89-6	E440	102 mg/kg	104	70.0	130	----
	RM	Lead	7439-92-1	E440	0.058 mg/kg	99.6	70.0	130	----
	RM	Magnesium	7439-95-4	E440	899 mg/kg	97.6	70.0	130	----
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	98.1	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	98.1	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: 1233008) - continued									
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	95.6	40.0	160	----
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	97.9	70.0	130	----
	RM	Potassium	7440-09-7	E440	11600 mg/kg	99.2	70.0	130	----
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	96.4	70.0	130	----
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	97.3	70.0	130	----
	RM	Sodium	7440-23-5	E440	9620 mg/kg	101	70.0	130	----
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	96.1	70.0	130	----
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	103	70.0	130	----
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	97.3	70.0	130	----
Metals (QCLot: 1233009)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	114	70.0	130	----
Metals (QCLot: 1233011)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	105	70.0	130	----
Metals (QCLot: 1233012)									
	RM	Aluminum	7429-90-5	E440A	147 mg/kg wwt	81.3	70.0	130	----
	RM	Arsenic	7440-38-2	E440A	14.5 mg/kg wwt	91.7	70.0	130	----
	RM	Barium	7440-39-3	E440A	0.352 mg/kg wwt	96.9	70.0	130	----
	RM	Boron	7440-42-8	E440A	3.47 mg/kg wwt	104	70.0	130	----
	RM	Cadmium	7440-43-9	E440A	0.153 mg/kg wwt	95.7	70.0	130	----
	RM	Calcium	7440-70-2	E440A	2010 mg/kg wwt	98.4	70.0	130	----
	RM	Cesium	7440-46-2	E440A	0.0889 mg/kg wwt	93.6	70.0	130	----
	RM	Chromium	7440-47-3	E440A	0.453 mg/kg wwt	89.1	70.0	130	----
	RM	Cobalt	7440-48-4	E440A	0.0567 mg/kg wwt	99.7	65.0	135	----
	RM	Copper	7440-50-8	E440A	3.3 mg/kg wwt	94.3	70.0	130	----
	RM	Iron	7439-89-6	E440A	102 mg/kg wwt	94.3	70.0	130	----
	RM	Lead	7439-92-1	E440A	0.058 mg/kg wwt	97.5	70.0	130	----
	RM	Magnesium	7439-95-4	E440A	899 mg/kg wwt	91.2	70.0	130	----
	RM	Manganese	7439-96-5	E440A	0.948 mg/kg wwt	93.8	70.0	130	----
	RM	Molybdenum	7439-98-7	E440A	0.134 mg/kg wwt	94.0	70.0	130	----
	RM	Nickel	7440-02-0	E440A	0.33 mg/kg wwt	92.0	40.0	160	----
	RM	Phosphorus	7723-14-0	E440A	6700 mg/kg wwt	96.3	70.0	130	----

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: 1233012) - continued									
	RM	Potassium	7440-09-7	E440A	11600 mg/kg wwt	101	70.0	130	----
	RM	Rubidium	7440-17-7	E440A	2.53 mg/kg wwt	92.8	70.0	130	----
	RM	Selenium	7782-49-2	E440A	2.48 mg/kg wwt	97.0	70.0	130	----
	RM	Sodium	7440-23-5	E440A	9620 mg/kg wwt	97.9	70.0	130	----
	RM	Strontium	7440-24-6	E440A	10.6 mg/kg wwt	97.6	70.0	130	----
	RM	Vanadium	7440-62-2	E440A	0.269 mg/kg wwt	86.7	70.0	130	----
	RM	Zinc	7440-66-6	E440A	28.7 mg/kg wwt	95.6	70.0	130	----
Metals (QCLot: 1233013)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	81.3	70.0	130	----
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	91.7	70.0	130	----
	RM	Barium	7440-39-3	E440	0.352 mg/kg	96.9	70.0	130	----
	RM	Boron	7440-42-8	E440	3.47 mg/kg	104	70.0	130	----
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	95.7	70.0	130	----
	RM	Calcium	7440-70-2	E440	2010 mg/kg	98.4	70.0	130	----
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	93.6	70.0	130	----
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	89.1	70.0	130	----
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	99.7	65.0	135	----
	RM	Copper	7440-50-8	E440	3.3 mg/kg	94.3	70.0	130	----
	RM	Iron	7439-89-6	E440	102 mg/kg	94.3	70.0	130	----
	RM	Lead	7439-92-1	E440	0.058 mg/kg	97.5	70.0	130	----
	RM	Magnesium	7439-95-4	E440	899 mg/kg	91.2	70.0	130	----
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	93.8	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	94.0	70.0	130	----
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	92.0	40.0	160	----
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	96.3	70.0	130	----
	RM	Potassium	7440-09-7	E440	11600 mg/kg	101	70.0	130	----
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	92.8	70.0	130	----
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	97.0	70.0	130	----
	RM	Sodium	7440-23-5	E440	9620 mg/kg	97.9	70.0	130	----
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	97.6	70.0	130	----
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	86.7	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: 1233013) - continued									
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	95.6	70.0	130	----
Metals (QCLot: 1233014)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	105	70.0	130	----
Metals (QCLot: 1235626)									
	RM	Aluminum	7429-90-5	E472A	147 mg/kg wwt	88.6	70.0	130	----
	RM	Arsenic	7440-38-2	E472A	14.5 mg/kg wwt	90.6	70.0	130	----
	RM	Barium	7440-39-3	E472A	0.352 mg/kg wwt	81.4	70.0	130	----
	RM	Boron	7440-42-8	E472A	3.47 mg/kg wwt	90.5	70.0	130	----
	RM	Cadmium	7440-43-9	E472A	0.153 mg/kg wwt	89.0	70.0	130	----
	RM	Calcium	7440-70-2	E472A	2010 mg/kg wwt	85.9	70.0	130	----
	RM	Cesium	7440-46-2	E472A	0.0889 mg/kg wwt	89.8	70.0	130	----
	RM	Chromium	7440-47-3	E472A	0.453 mg/kg wwt	81.0	50.0	150	----
	RM	Cobalt	7440-48-4	E472A	0.0567 mg/kg wwt	88.2	65.0	135	----
	RM	Copper	7440-50-8	E472A	3.3 mg/kg wwt	87.1	70.0	130	----
	RM	Iron	7439-89-6	E472A	102 mg/kg wwt	88.4	70.0	130	----
	RM	Lead	7439-92-1	E472A	0.058 mg/kg wwt	92.5	15.0	185	----
	RM	Magnesium	7439-95-4	E472A	899 mg/kg wwt	91.9	70.0	130	----
	RM	Manganese	7439-96-5	E472A	0.948 mg/kg wwt	88.5	70.0	130	----
	RM	Molybdenum	7439-98-7	E472A	0.134 mg/kg wwt	91.8	70.0	130	----
	RM	Nickel	7440-02-0	E472A	0.33 mg/kg wwt	79.7	40.0	160	----
	RM	Phosphorus	7723-14-0	E472A	6700 mg/kg wwt	95.2	70.0	130	----
	RM	Potassium	7440-09-7	E472A	11600 mg/kg wwt	95.1	70.0	130	----
	RM	Rubidium	7440-17-7	E472A	2.53 mg/kg wwt	89.2	70.0	130	----
	RM	Selenium	7782-49-2	E472A	2.48 mg/kg wwt	89.9	70.0	130	----
	RM	Sodium	7440-23-5	E472A	9620 mg/kg wwt	92.4	70.0	130	----
	RM	Strontium	7440-24-6	E472A	10.6 mg/kg wwt	89.0	70.0	130	----
	RM	Vanadium	7440-62-2	E472A	0.269 mg/kg wwt	88.0	70.0	130	----
	RM	Zinc	7440-66-6	E472A	28.7 mg/kg wwt	88.8	70.0	130	----
Metals (QCLot: 1235627)									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	108	70.0	130	----
Metals (QCLot: 1235628)									

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: 1235628) - continued									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	108	70.0	130	----
Metals (QCLot: 1235629)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	88.6	70.0	130	----
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	90.6	70.0	130	----
	RM	Barium	7440-39-3	E472	0.352 mg/kg	81.4	70.0	130	----
	RM	Boron	7440-42-8	E472	3.47 mg/kg	90.5	70.0	130	----
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	89.0	70.0	130	----
	RM	Calcium	7440-70-2	E472	2010 mg/kg	85.9	70.0	130	----
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	89.8	70.0	130	----
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	81.0	50.0	150	----
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	88.2	65.0	135	----
	RM	Copper	7440-50-8	E472	3.3 mg/kg	87.1	70.0	130	----
	RM	Iron	7439-89-6	E472	102 mg/kg	88.4	70.0	130	----
	RM	Lead	7439-92-1	E472	0.058 mg/kg	92.5	15.0	185	----
	RM	Magnesium	7439-95-4	E472	899 mg/kg	91.9	70.0	130	----
	RM	Manganese	7439-96-5	E472	0.948 mg/kg	88.5	70.0	130	----
	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	91.8	70.0	130	----
	RM	Nickel	7440-02-0	E472	0.33 mg/kg	79.7	40.0	160	----
	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	95.2	70.0	130	----
	RM	Potassium	7440-09-7	E472	11600 mg/kg	95.1	70.0	130	----
	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	89.2	70.0	130	----
	RM	Selenium	7782-49-2	E472	2.48 mg/kg	89.9	70.0	130	----
	RM	Sodium	7440-23-5	E472	9620 mg/kg	92.4	70.0	130	----
	RM	Strontium	7440-24-6	E472	10.6 mg/kg	89.0	70.0	130	----
	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	88.0	70.0	130	----
	RM	Zinc	7440-66-6	E472	28.7 mg/kg	88.8	70.0	130	----
Metals (QCLot: 1239886)									
	RM	Aluminum	7429-90-5	E472A	147 mg/kg wwt	82.2	70.0	130	----
	RM	Arsenic	7440-38-2	E472A	14.5 mg/kg wwt	88.9	70.0	130	----
	RM	Barium	7440-39-3	E472A	0.352 mg/kg wwt	88.2	70.0	130	----
	RM	Boron	7440-42-8	E472A	3.47 mg/kg wwt	88.9	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: 1239886) - continued									
	RM	Cadmium	7440-43-9	E472A	0.153 mg/kg wwt	90.3	70.0	130	----
	RM	Calcium	7440-70-2	E472A	2010 mg/kg wwt	90.4	70.0	130	----
	RM	Cesium	7440-46-2	E472A	0.0889 mg/kg wwt	92.9	70.0	130	----
	RM	Chromium	7440-47-3	E472A	0.453 mg/kg wwt	84.5	50.0	150	----
	RM	Cobalt	7440-48-4	E472A	0.0567 mg/kg wwt	94.8	65.0	135	----
	RM	Copper	7440-50-8	E472A	3.3 mg/kg wwt	86.0	70.0	130	----
	RM	Iron	7439-89-6	E472A	102 mg/kg wwt	86.2	70.0	130	----
	RM	Lead	7439-92-1	E472A	0.058 mg/kg wwt	92.2	15.0	185	----
	RM	Magnesium	7439-95-4	E472A	899 mg/kg wwt	85.7	70.0	130	----
	RM	Manganese	7439-96-5	E472A	0.948 mg/kg wwt	86.0	70.0	130	----
	RM	Molybdenum	7439-98-7	E472A	0.134 mg/kg wwt	89.3	70.0	130	----
	RM	Nickel	7440-02-0	E472A	0.33 mg/kg wwt	81.6	40.0	160	----
	RM	Phosphorus	7723-14-0	E472A	6700 mg/kg wwt	91.2	70.0	130	----
	RM	Potassium	7440-09-7	E472A	11600 mg/kg wwt	92.3	70.0	130	----
	RM	Rubidium	7440-17-7	E472A	2.53 mg/kg wwt	86.9	70.0	130	----
	RM	Selenium	7782-49-2	E472A	2.48 mg/kg wwt	96.5	70.0	130	----
	RM	Sodium	7440-23-5	E472A	9620 mg/kg wwt	88.6	70.0	130	----
	RM	Strontium	7440-24-6	E472A	10.6 mg/kg wwt	88.6	70.0	130	----
	RM	Vanadium	7440-62-2	E472A	0.269 mg/kg wwt	84.5	70.0	130	----
	RM	Zinc	7440-66-6	E472A	28.7 mg/kg wwt	90.5	70.0	130	----
Metals (QCLot: 1239887)									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	101	70.0	130	----
Metals (QCLot: 1239888)									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	101	70.0	130	----
Metals (QCLot: 1239889)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	82.2	70.0	130	----
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	88.9	70.0	130	----
	RM	Barium	7440-39-3	E472	0.352 mg/kg	88.2	70.0	130	----
	RM	Boron	7440-42-8	E472	3.47 mg/kg	88.9	70.0	130	----
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	90.3	70.0	130	----
	RM	Calcium	7440-70-2	E472	2010 mg/kg	90.4	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: 1239889) - continued									
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	92.9	70.0	130	----
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	84.5	50.0	150	----
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	94.8	65.0	135	----
	RM	Copper	7440-50-8	E472	3.3 mg/kg	86.0	70.0	130	----
	RM	Iron	7439-89-6	E472	102 mg/kg	86.2	70.0	130	----
	RM	Lead	7439-92-1	E472	0.058 mg/kg	92.2	15.0	185	----
	RM	Magnesium	7439-95-4	E472	899 mg/kg	85.7	70.0	130	----
	RM	Manganese	7439-96-5	E472	0.948 mg/kg	86.0	70.0	130	----
	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	89.3	70.0	130	----
	RM	Nickel	7440-02-0	E472	0.33 mg/kg	81.6	40.0	160	----
	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	91.2	70.0	130	----
	RM	Potassium	7440-09-7	E472	11600 mg/kg	92.3	70.0	130	----
	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	86.9	70.0	130	----
	RM	Selenium	7782-49-2	E472	2.48 mg/kg	96.5	70.0	130	----
	RM	Sodium	7440-23-5	E472	9620 mg/kg	88.6	70.0	130	----
	RM	Strontium	7440-24-6	E472	10.6 mg/kg	88.6	70.0	130	----
	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	84.5	70.0	130	----
	RM	Zinc	7440-66-6	E472	28.7 mg/kg	90.5	70.0	130	----
Metals (QCLot: 1242502)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	106	70.0	130	----
Metals (QCLot: 1242503)									
	RM	Aluminum	7429-90-5	E440A	147 mg/kg wwt	101	70.0	130	----
	RM	Arsenic	7440-38-2	E440A	14.5 mg/kg wwt	96.3	70.0	130	----
	RM	Barium	7440-39-3	E440A	0.352 mg/kg wwt	102	70.0	130	----
	RM	Boron	7440-42-8	E440A	3.47 mg/kg wwt	98.7	70.0	130	----
	RM	Cadmium	7440-43-9	E440A	0.153 mg/kg wwt	96.6	70.0	130	----
	RM	Calcium	7440-70-2	E440A	2010 mg/kg wwt	102	70.0	130	----
	RM	Cesium	7440-46-2	E440A	0.0889 mg/kg wwt	95.6	70.0	130	----
	RM	Chromium	7440-47-3	E440A	0.453 mg/kg wwt	119	70.0	130	----
	RM	Cobalt	7440-48-4	E440A	0.0567 mg/kg wwt	102	65.0	135	----

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: 1242503) - continued									
	RM	Copper	7440-50-8	E440A	3.3 mg/kg wwt	97.5	70.0	130	----
	RM	Iron	7439-89-6	E440A	102 mg/kg wwt	98.0	70.0	130	----
	RM	Lead	7439-92-1	E440A	0.058 mg/kg wwt	99.7	70.0	130	----
	RM	Magnesium	7439-95-4	E440A	899 mg/kg wwt	98.2	70.0	130	----
	RM	Manganese	7439-96-5	E440A	0.948 mg/kg wwt	101	70.0	130	----
	RM	Molybdenum	7439-98-7	E440A	0.134 mg/kg wwt	94.7	70.0	130	----
	RM	Nickel	7440-02-0	E440A	0.33 mg/kg wwt	100	40.0	160	----
	RM	Phosphorus	7723-14-0	E440A	6700 mg/kg wwt	106	70.0	130	----
	RM	Potassium	7440-09-7	E440A	11600 mg/kg wwt	102	70.0	130	----
	RM	Rubidium	7440-17-7	E440A	2.53 mg/kg wwt	103	70.0	130	----
	RM	Selenium	7782-49-2	E440A	2.48 mg/kg wwt	97.5	70.0	130	----
	RM	Sodium	7440-23-5	E440A	9620 mg/kg wwt	101	70.0	130	----
	RM	Strontium	7440-24-6	E440A	10.6 mg/kg wwt	94.5	70.0	130	----
	RM	Vanadium	7440-62-2	E440A	0.269 mg/kg wwt	97.6	70.0	130	----
	RM	Zinc	7440-66-6	E440A	28.7 mg/kg wwt	97.9	70.0	130	----
Metals (QCLot: 1242504)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	101	70.0	130	----
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	96.3	70.0	130	----
	RM	Barium	7440-39-3	E440	0.352 mg/kg	102	70.0	130	----
	RM	Boron	7440-42-8	E440	3.47 mg/kg	98.7	70.0	130	----
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	96.6	70.0	130	----
	RM	Calcium	7440-70-2	E440	2010 mg/kg	102	70.0	130	----
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	95.6	70.0	130	----
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	119	70.0	130	----
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	102	65.0	135	----
	RM	Copper	7440-50-8	E440	3.3 mg/kg	97.5	70.0	130	----
	RM	Iron	7439-89-6	E440	102 mg/kg	98.0	70.0	130	----
	RM	Lead	7439-92-1	E440	0.058 mg/kg	99.7	70.0	130	----
	RM	Magnesium	7439-95-4	E440	899 mg/kg	98.2	70.0	130	----
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	101	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	94.7	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: 1242504) - continued									
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	100	40.0	160	----
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	106	70.0	130	----
	RM	Potassium	7440-09-7	E440	11600 mg/kg	102	70.0	130	----
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	103	70.0	130	----
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	97.5	70.0	130	----
	RM	Sodium	7440-23-5	E440	9620 mg/kg	101	70.0	130	----
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	94.5	70.0	130	----
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	97.6	70.0	130	----
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	97.9	70.0	130	----
Metals (QCLot: 1242505)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	106	70.0	130	----
Metals (QCLot: 1246970)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	108	70.0	130	----
Metals (QCLot: 1246971)									
	RM	Aluminum	7429-90-5	E440A	147 mg/kg wwt	101	70.0	130	----
	RM	Arsenic	7440-38-2	E440A	14.5 mg/kg wwt	98.0	70.0	130	----
	RM	Barium	7440-39-3	E440A	0.352 mg/kg wwt	90.0	70.0	130	----
	RM	Boron	7440-42-8	E440A	3.47 mg/kg wwt	95.7	70.0	130	----
	RM	Cadmium	7440-43-9	E440A	0.153 mg/kg wwt	101	70.0	130	----
	RM	Calcium	7440-70-2	E440A	2010 mg/kg wwt	94.9	70.0	130	----
	RM	Cesium	7440-46-2	E440A	0.0889 mg/kg wwt	92.3	70.0	130	----
	RM	Chromium	7440-47-3	E440A	0.453 mg/kg wwt	104	70.0	130	----
	RM	Cobalt	7440-48-4	E440A	0.0567 mg/kg wwt	111	65.0	135	----
	RM	Copper	7440-50-8	E440A	3.3 mg/kg wwt	98.8	70.0	130	----
	RM	Iron	7439-89-6	E440A	102 mg/kg wwt	98.4	70.0	130	----
	RM	Lead	7439-92-1	E440A	0.058 mg/kg wwt	95.1	70.0	130	----
	RM	Magnesium	7439-95-4	E440A	899 mg/kg wwt	101	70.0	130	----
	RM	Manganese	7439-96-5	E440A	0.948 mg/kg wwt	100	70.0	130	----
	RM	Molybdenum	7439-98-7	E440A	0.134 mg/kg wwt	91.0	70.0	130	----
	RM	Nickel	7440-02-0	E440A	0.33 mg/kg wwt	98.2	40.0	160	----
	RM	Phosphorus	7723-14-0	E440A	6700 mg/kg wwt	98.6	70.0	130	----

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: 1246971) - continued									
	RM	Potassium	7440-09-7	E440A	11600 mg/kg wwt	103	70.0	130	----
	RM	Rubidium	7440-17-7	E440A	2.53 mg/kg wwt	97.7	70.0	130	----
	RM	Selenium	7782-49-2	E440A	2.48 mg/kg wwt	99.7	70.0	130	----
	RM	Sodium	7440-23-5	E440A	9620 mg/kg wwt	103	70.0	130	----
	RM	Strontium	7440-24-6	E440A	10.6 mg/kg wwt	89.7	70.0	130	----
	RM	Vanadium	7440-62-2	E440A	0.269 mg/kg wwt	98.5	70.0	130	----
	RM	Zinc	7440-66-6	E440A	28.7 mg/kg wwt	102	70.0	130	----
Metals (QCLot: 1246973)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	101	70.0	130	----
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	98.0	70.0	130	----
	RM	Barium	7440-39-3	E440	0.352 mg/kg	90.0	70.0	130	----
	RM	Boron	7440-42-8	E440	3.47 mg/kg	95.7	70.0	130	----
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	101	70.0	130	----
	RM	Calcium	7440-70-2	E440	2010 mg/kg	94.9	70.0	130	----
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	92.3	70.0	130	----
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	104	70.0	130	----
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	111	65.0	135	----
	RM	Copper	7440-50-8	E440	3.3 mg/kg	98.8	70.0	130	----
	RM	Iron	7439-89-6	E440	102 mg/kg	98.4	70.0	130	----
	RM	Lead	7439-92-1	E440	0.058 mg/kg	95.1	70.0	130	----
	RM	Magnesium	7439-95-4	E440	899 mg/kg	101	70.0	130	----
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	100	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	91.0	70.0	130	----
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	98.2	40.0	160	----
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	98.6	70.0	130	----
	RM	Potassium	7440-09-7	E440	11600 mg/kg	103	70.0	130	----
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	97.7	70.0	130	----
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	99.7	70.0	130	----
	RM	Sodium	7440-23-5	E440	9620 mg/kg	103	70.0	130	----
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	89.7	70.0	130	----
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	98.5	70.0	130	----

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: 1246973) - continued									
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	102	70.0	130	----
Metals (QCLot: 1246975)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	108	70.0	130	----

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C2929**	Page	: 1 of 66
Client	: **Palmer Environmental Consulting Group Inc.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Accounts Payable	Account Manager	: Amber Springer
Address	: 470 Granville Street Suite 630 Vancouver BC Canada V6C 1V5	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: 647 795 8153	Telephone	: +1 604 253 4188
Project	: 2006506	Date Samples Received	: 26-Sep-2023 11:50
PO	: 15180	Issue Date	: 24-Nov-2023 09:42
C-O-C number	: ----		
Sampler	: Marissa Heppner		
Site	: ----		
Quote number	: VA23-BWGL100-002		
No. of samples received	: 113		
No. of samples analysed	: 104		

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: **Biota**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Duplicate (DUP) RPDs								
Metals	VA23C2929-098	661-01_ef_20230831_RB_1	Aluminum	7429-90-5	E440	61.4 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2929-019	TL-01_an_20230909_RB_1 carcass *	Barium	7440-39-3	E440	49.4 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2929-064	TL-01_gn_20230907_MW_8 carcass*	Barium	7440-39-3	E440	43.8 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2929-019	TL-01_an_20230909_RB_1 carcass *	Calcium	7440-70-2	E440	79.7 % DUP-H	60%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2929-098	661-01_ef_20230831_RB_1	Iron	7439-89-6	E440	41.9 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2929-019	TL-01_an_20230909_RB_1 carcass *	Manganese	7439-96-5	E440	57.2 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2929-064	TL-01_gn_20230907_MW_8 carcass*	Manganese	7439-96-5	E440	53.0 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2929-064	TL-01_gn_20230907_MW_8 carcass*	Phosphorus	7723-14-0	E440	45.8 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2929-019	TL-01_an_20230909_RB_1 carcass *	Strontium	7440-24-6	E440	71.2 % DUP-H	60%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2929-064	TL-01_gn_20230907_MW_8 carcass*	Uranium	7440-61-1	E440	70.5 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2929-064	TL-01_gn_20230907_MW_8 carcass*	Vanadium	7440-62-2	E440	44.7 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2929-098	661-01_ef_20230831_RB_1	Aluminum	7429-90-5	E440A	61.4 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2929-019	TL-01_an_20230909_RB_1 carcass *	Barium	7440-39-3	E440A	49.4 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2929-064	TL-01_gn_20230907_MW_8 carcass*	Barium	7440-39-3	E440A	43.8 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2929-019	TL-01_an_20230909_RB_1 carcass *	Calcium	7440-70-2	E440A	79.7 % DUP-H	60%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2929-098	661-01_ef_20230831_RB_1	Iron	7439-89-6	E440A	41.9 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2929-019	TL-01_an_20230909_RB_1 carcass *	Manganese	7439-96-5	E440A	57.2 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2929-064	TL-01_gn_20230907_MW_8 carcass*	Manganese	7439-96-5	E440A	53.0 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.

Matrix: **Biota**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Duplicate (DUP) RPDs - Continued								
Metals	VA23C2929-064	TL-01_gn_20230907 _MW_8 carcass*	Phosphorus	7723-14-0	E440A	45.8 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2929-019	TL-01_an_20230909 _RB_1 carcass *	Strontium	7440-24-6	E440A	71.2 % DUP-H	60%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2929-064	TL-01_gn_20230907 _MW_8 carcass*	Uranium	7440-61-1	E440A	70.5 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2929-064	TL-01_gn_20230907 _MW_8 carcass*	Vanadium	7440-62-2	E440A	44.7 % DUP-H	40%	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
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag DC-5/DC-15_ef_20230824_RB_8	E511	24-Sep-2023	16-Nov-2023	365 days	54 days	✓	20-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag DC-9/DC-5_ef_20230822_RB_3	E511	23-Sep-2023	16-Nov-2023	365 days	55 days	✓	20-Nov-2023	365 days	59 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag DC-9/DC-5_ef_20230822_RB_5	E511	23-Sep-2023	16-Nov-2023	365 days	55 days	✓	20-Nov-2023	365 days	59 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag DC-9/DC-5_ef_20230822_RB_6	E511	23-Sep-2023	16-Nov-2023	365 days	55 days	✓	20-Nov-2023	365 days	59 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag DC-9/DC-5_ef_20230822_RB_7	E511	23-Sep-2023	16-Nov-2023	365 days	55 days	✓	20-Nov-2023	365 days	59 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TL-01_gn_20230907_MW_8 liver*	E511	07-Sep-2023	14-Nov-2023	365 days	68 days	✓	15-Nov-2023	365 days	70 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TL-01_an_20230909_RB_1 liver *	E511	09-Sep-2023	16-Nov-2023	365 days	69 days	✓	20-Nov-2023	365 days	73 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*	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TL-01_gn_20230909_RB_1 liver *	E511	09-Sep-2023	16-Nov-2023	365 days	69 days	✓	20-Nov-2023	365 days	73 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TL-01_gn_20230909_RB_2 liver *	E511	09-Sep-2023	16-Nov-2023	365 days	69 days	✓	20-Nov-2023	365 days	73 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TL-01_gn_20230909_RB_3 liver *	E511	09-Sep-2023	16-Nov-2023	365 days	69 days	✓	20-Nov-2023	365 days	73 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TL-01_gn_20230909_RB_4 liver *	E511	09-Sep-2023	16-Nov-2023	365 days	69 days	✓	20-Nov-2023	365 days	73 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TL-01_gn_20230909_RB_5 liver *	E511	09-Sep-2023	16-Nov-2023	365 days	69 days	✓	20-Nov-2023	365 days	73 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TL-01_gn_20230909_RB_6 liver *	E511	09-Sep-2023	16-Nov-2023	365 days	69 days	✓	20-Nov-2023	365 days	73 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TL-01_gn_20230909_RB_7 liver *	E511	09-Sep-2023	16-Nov-2023	365 days	69 days	✓	20-Nov-2023	365 days	73 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TL-01_gn_20230907_MW_1 liver *	E511	07-Sep-2023	16-Nov-2023	365 days	71 days	✓	20-Nov-2023	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TL-01_gn_20230907_MW_2 liver *	E511	07-Sep-2023	16-Nov-2023	365 days	71 days	✓	20-Nov-2023	365 days	75 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 TL-01_gn_20230907_MW_3 liver *	E511	07-Sep-2023	16-Nov-2023	365 days	71 days	✓	20-Nov-2023	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TL-01_gn_20230907_MW_4 liver*	E511	07-Sep-2023	16-Nov-2023	365 days	71 days	✓	20-Nov-2023	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TL-01_gn_20230907_MW_5 liver*	E511	07-Sep-2023	16-Nov-2023	365 days	71 days	✓	20-Nov-2023	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TL-01_gn_20230907_MW_6 liver*	E511	07-Sep-2023	16-Nov-2023	365 days	71 days	✓	20-Nov-2023	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TL-01_gn_20230907_MW_7 liver*	E511	07-Sep-2023	16-Nov-2023	365 days	71 days	✓	20-Nov-2023	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag FC-01_ef_20230831_RB_7	E511	31-Aug-2023	14-Nov-2023	365 days	75 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag FC-01_ef_20230831_RB_8	E511	31-Aug-2023	14-Nov-2023	365 days	75 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_1 liver *	E511	25-Aug-2023	14-Nov-2023	365 days	81 days	✓	15-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_2 liver*	E511	25-Aug-2023	14-Nov-2023	365 days	81 days	✓	15-Nov-2023	365 days	83 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*	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_3 liver*	E511	25-Aug-2023	14-Nov-2023	365 days	81 days	✓	15-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_4 liver*	E511	25-Aug-2023	14-Nov-2023	365 days	81 days	✓	15-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_5 liver *	E511	25-Aug-2023	14-Nov-2023	365 days	81 days	✓	15-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_6 liver*	E511	25-Aug-2023	14-Nov-2023	365 days	81 days	✓	15-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_7 liver*	E511	25-Aug-2023	14-Nov-2023	365 days	81 days	✓	15-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_8 liver*	E511	25-Aug-2023	14-Nov-2023	365 days	81 days	✓	15-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_1	E510	24-Sep-2023	11-Nov-2023	365 days	48 days	✓	14-Nov-2023	365 days	52 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_2	E510	24-Sep-2023	11-Nov-2023	365 days	48 days	✓	14-Nov-2023	365 days	52 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_3	E510	24-Sep-2023	11-Nov-2023	365 days	48 days	✓	14-Nov-2023	365 days	52 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, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_7	E510	24-Sep-2023	11-Nov-2023	365 days	48 days	✓	14-Nov-2023	365 days	52 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag DC-9/DC-5_ef_20230822_RB_1	E510	23-Sep-2023	11-Nov-2023	365 days	49 days	✓	14-Nov-2023	365 days	53 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag DC-9/DC-5_ef_20230822_RB_12	E510	23-Sep-2023	11-Nov-2023	365 days	49 days	✓	14-Nov-2023	365 days	53 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag DC-9/DC-5_ef_20230822_RB_2	E510	23-Sep-2023	11-Nov-2023	365 days	49 days	✓	14-Nov-2023	365 days	53 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag DC-9/DC-5_ef_20230822_RB_4	E510	23-Sep-2023	11-Nov-2023	365 days	49 days	✓	14-Nov-2023	365 days	53 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_5	E510	24-Sep-2023	17-Nov-2023	365 days	55 days	✓	20-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_6	E510	24-Sep-2023	17-Nov-2023	365 days	55 days	✓	20-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_4	E510	24-Sep-2023	22-Nov-2023	365 days	59 days	✓	22-Nov-2023	365 days	60 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_an_20230909_RB_1 carcass *	E510	09-Sep-2023	11-Nov-2023	365 days	63 days	✓	14-Nov-2023	365 days	67 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, Routine)										
LDPE bag TL-01_an_20230909_RB_1 muscle *	E510	09-Sep-2023	11-Nov-2023	365 days	63 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_1 carcass*	E510	09-Sep-2023	11-Nov-2023	365 days	63 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_1 muscle*	E510	09-Sep-2023	11-Nov-2023	365 days	63 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_2 carcass*	E510	09-Sep-2023	11-Nov-2023	365 days	63 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_2 muscle*	E510	09-Sep-2023	11-Nov-2023	365 days	63 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_3 carcass*	E510	09-Sep-2023	11-Nov-2023	365 days	63 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_3 muscle*	E510	09-Sep-2023	11-Nov-2023	365 days	63 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_4 carcass*	E510	09-Sep-2023	11-Nov-2023	365 days	63 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_4 muscle*	E510	09-Sep-2023	11-Nov-2023	365 days	63 days	✓	14-Nov-2023	365 days	67 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*	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_5 muscle*	E510	09-Sep-2023	11-Nov-2023	365 days	63 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_8 carcass*	E510	07-Sep-2023	11-Nov-2023	365 days	65 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_5 carcass*	E510	09-Sep-2023	14-Nov-2023	365 days	67 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_6 carcass*	E510	09-Sep-2023	14-Nov-2023	365 days	67 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_6 muscle *	E510	09-Sep-2023	14-Nov-2023	365 days	67 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_7 carcass*	E510	09-Sep-2023	14-Nov-2023	365 days	67 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_7 muscle *	E510	09-Sep-2023	14-Nov-2023	365 days	67 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_1 carcass*	E510	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_1 muscle *	E510	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 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*	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_2 carcass *	E510	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_2 muscle *	E510	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_3 carcass *	E510	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_3 muscle *	E510	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_4 carcass*	E510	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_4 muscle*	E510	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_5 carcass*	E510	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_5 muscle*	E510	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_6 carcass*	E510	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 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*	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_6 muscle*	E510	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_7 carcass*	E510	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_7 muscle*	E510	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_8 muscle*	E510	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 661-01_ef_20230831_RB_1	E510	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 661-01_ef_20230831_RB_2	E510	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 661-01_ef_20230831_RB_3	E510	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 661-01_ef_20230831_RB_4	E510	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 661-01_ef_20230831_RB_5	E510	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 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*	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 661-01_ef_20230831_RB_6	E510	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 661-01_ef_20230831_RB_7	E510	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 661-01_ef_20230831_RB_8	E510	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag FC-01_ef_20230831_RB_1	E510	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag FC-01_ef_20230831_RB_2	E510	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag FC-01_ef_20230831_RB_3	E510	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag FC-01_ef_20230831_RB_4	E510	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag FC-01_ef_20230831_RB_5	E510	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag FC-01_ef_20230831_RB_6	E510	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 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, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_1 carcass*	E510	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_1 muscle*	E510	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_2 carcass*	E510	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_2 muscle*	E510	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_3 carcass*	E510	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_3 muscle*	E510	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_4 carcass*	E510	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_4 muscle*	E510	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_5 carcass*	E510	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 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*	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_5 muscle*	E510	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_6 carcass*	E510	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_6 muscle*	E510	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_7 carcass*	E510	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_7 muscle*	E510	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_8 carcass*	E510	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_8 muscle*	E510	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag DC-5/DC-15_ef_20230824_RB_8	E511A	24-Sep-2023	16-Nov-2023	365 days	54 days	✓	20-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag DC-9/DC-5_ef_20230822_RB_3	E511A	23-Sep-2023	16-Nov-2023	365 days	55 days	✓	20-Nov-2023	365 days	59 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*	
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag DC-9/DC-5_ef_20230822_RB_5	E511A	23-Sep-2023	16-Nov-2023	365 days	55 days	✓	20-Nov-2023	365 days	59 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag DC-9/DC-5_ef_20230822_RB_6	E511A	23-Sep-2023	16-Nov-2023	365 days	55 days	✓	20-Nov-2023	365 days	59 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag DC-9/DC-5_ef_20230822_RB_7	E511A	23-Sep-2023	16-Nov-2023	365 days	55 days	✓	20-Nov-2023	365 days	59 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TL-01_gn_20230907_MW_8 liver*	E511A	07-Sep-2023	14-Nov-2023	365 days	68 days	✓	15-Nov-2023	365 days	70 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TL-01_an_20230909_RB_1 liver *	E511A	09-Sep-2023	16-Nov-2023	365 days	69 days	✓	20-Nov-2023	365 days	73 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TL-01_gn_20230909_RB_1 liver *	E511A	09-Sep-2023	16-Nov-2023	365 days	69 days	✓	20-Nov-2023	365 days	73 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TL-01_gn_20230909_RB_2 liver *	E511A	09-Sep-2023	16-Nov-2023	365 days	69 days	✓	20-Nov-2023	365 days	73 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TL-01_gn_20230909_RB_3 liver *	E511A	09-Sep-2023	16-Nov-2023	365 days	69 days	✓	20-Nov-2023	365 days	73 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TL-01_gn_20230909_RB_4 liver *	E511A	09-Sep-2023	16-Nov-2023	365 days	69 days	✓	20-Nov-2023	365 days	73 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 units, Micro)										
LDPE bag TL-01_gn_20230909_RB_5 liver *	E511A	09-Sep-2023	16-Nov-2023	365 days	69 days	✓	20-Nov-2023	365 days	73 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TL-01_gn_20230909_RB_6 liver *	E511A	09-Sep-2023	16-Nov-2023	365 days	69 days	✓	20-Nov-2023	365 days	73 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TL-01_gn_20230909_RB_7 liver *	E511A	09-Sep-2023	16-Nov-2023	365 days	69 days	✓	20-Nov-2023	365 days	73 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TL-01_gn_20230907_MW_1 liver *	E511A	07-Sep-2023	16-Nov-2023	365 days	71 days	✓	20-Nov-2023	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TL-01_gn_20230907_MW_2 liver *	E511A	07-Sep-2023	16-Nov-2023	365 days	71 days	✓	20-Nov-2023	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TL-01_gn_20230907_MW_3 liver *	E511A	07-Sep-2023	16-Nov-2023	365 days	71 days	✓	20-Nov-2023	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TL-01_gn_20230907_MW_4 liver*	E511A	07-Sep-2023	16-Nov-2023	365 days	71 days	✓	20-Nov-2023	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TL-01_gn_20230907_MW_5 liver*	E511A	07-Sep-2023	16-Nov-2023	365 days	71 days	✓	20-Nov-2023	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TL-01_gn_20230907_MW_6 liver*	E511A	07-Sep-2023	16-Nov-2023	365 days	71 days	✓	20-Nov-2023	365 days	75 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 units, Micro)										
LDPE bag TL-01_gn_20230907_MW_7 liver*	E511A	07-Sep-2023	16-Nov-2023	365 days	71 days	✓	20-Nov-2023	365 days	75 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag FC-01_ef_20230831_RB_7	E511A	31-Aug-2023	14-Nov-2023	365 days	75 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag FC-01_ef_20230831_RB_8	E511A	31-Aug-2023	14-Nov-2023	365 days	75 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_1 liver *	E511A	25-Aug-2023	14-Nov-2023	365 days	81 days	✓	15-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_2 liver*	E511A	25-Aug-2023	14-Nov-2023	365 days	81 days	✓	15-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_3 liver*	E511A	25-Aug-2023	14-Nov-2023	365 days	81 days	✓	15-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_4 liver*	E511A	25-Aug-2023	14-Nov-2023	365 days	81 days	✓	15-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_5 liver *	E511A	25-Aug-2023	14-Nov-2023	365 days	81 days	✓	15-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_6 liver*	E511A	25-Aug-2023	14-Nov-2023	365 days	81 days	✓	15-Nov-2023	365 days	83 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*	
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_7 liver*	E511A	25-Aug-2023	14-Nov-2023	365 days	81 days	✓	15-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_8 liver*	E511A	25-Aug-2023	14-Nov-2023	365 days	81 days	✓	15-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_1	E510A	24-Sep-2023	11-Nov-2023	365 days	48 days	✓	14-Nov-2023	365 days	52 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_2	E510A	24-Sep-2023	11-Nov-2023	365 days	48 days	✓	14-Nov-2023	365 days	52 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_3	E510A	24-Sep-2023	11-Nov-2023	365 days	48 days	✓	14-Nov-2023	365 days	52 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_7	E510A	24-Sep-2023	11-Nov-2023	365 days	48 days	✓	14-Nov-2023	365 days	52 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag DC-9/DC-5_ef_20230822_RB_1	E510A	23-Sep-2023	11-Nov-2023	365 days	49 days	✓	14-Nov-2023	365 days	53 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag DC-9/DC-5_ef_20230822_RB_12	E510A	23-Sep-2023	11-Nov-2023	365 days	49 days	✓	14-Nov-2023	365 days	53 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag DC-9/DC-5_ef_20230822_RB_2	E510A	23-Sep-2023	11-Nov-2023	365 days	49 days	✓	14-Nov-2023	365 days	53 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 units, Routine)										
LDPE bag DC-9/DC-5_ef_20230822_RB_4	E510A	23-Sep-2023	11-Nov-2023	365 days	49 days	✓	14-Nov-2023	365 days	53 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_5	E510A	24-Sep-2023	17-Nov-2023	365 days	55 days	✓	20-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_6	E510A	24-Sep-2023	17-Nov-2023	365 days	55 days	✓	20-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_4	E510A	24-Sep-2023	22-Nov-2023	365 days	59 days	✓	22-Nov-2023	365 days	60 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_an_20230909_RB_1 carcass *	E510A	09-Sep-2023	11-Nov-2023	365 days	63 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_an_20230909_RB_1 muscle *	E510A	09-Sep-2023	11-Nov-2023	365 days	63 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_1 carcass*	E510A	09-Sep-2023	11-Nov-2023	365 days	63 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_1 muscle*	E510A	09-Sep-2023	11-Nov-2023	365 days	63 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_2 carcass*	E510A	09-Sep-2023	11-Nov-2023	365 days	63 days	✓	14-Nov-2023	365 days	67 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*	
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_2 muscle*	E510A	09-Sep-2023	11-Nov-2023	365 days	63 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_3 carcass*	E510A	09-Sep-2023	11-Nov-2023	365 days	63 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_3 muscle*	E510A	09-Sep-2023	11-Nov-2023	365 days	63 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_4 carcass*	E510A	09-Sep-2023	11-Nov-2023	365 days	63 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_4 muscle*	E510A	09-Sep-2023	11-Nov-2023	365 days	63 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_5 muscle*	E510A	09-Sep-2023	11-Nov-2023	365 days	63 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_8 carcass*	E510A	07-Sep-2023	11-Nov-2023	365 days	65 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_5 carcass*	E510A	09-Sep-2023	14-Nov-2023	365 days	67 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_6 carcass*	E510A	09-Sep-2023	14-Nov-2023	365 days	67 days	✓	14-Nov-2023	365 days	67 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*	
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_6 muscle *	E510A	09-Sep-2023	14-Nov-2023	365 days	67 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_7 carcass*	E510A	09-Sep-2023	14-Nov-2023	365 days	67 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_7 muscle *	E510A	09-Sep-2023	14-Nov-2023	365 days	67 days	✓	14-Nov-2023	365 days	67 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_1 carcass*	E510A	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_1 muscle *	E510A	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_2 carcass *	E510A	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_2 muscle *	E510A	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_3 carcass *	E510A	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_3 muscle *	E510A	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 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*	
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_4 carcass*	E510A	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_4 muscle*	E510A	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_5 carcass*	E510A	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_5 muscle*	E510A	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_6 carcass*	E510A	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_6 muscle*	E510A	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_7 carcass*	E510A	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_7 muscle*	E510A	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_8 muscle*	E510A	07-Sep-2023	14-Nov-2023	365 days	69 days	✓	14-Nov-2023	365 days	69 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*	
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 661-01_ef_20230831_RB_1	E510A	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 661-01_ef_20230831_RB_2	E510A	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 661-01_ef_20230831_RB_3	E510A	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 661-01_ef_20230831_RB_4	E510A	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 661-01_ef_20230831_RB_5	E510A	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 661-01_ef_20230831_RB_6	E510A	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 661-01_ef_20230831_RB_7	E510A	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 661-01_ef_20230831_RB_8	E510A	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag FC-01_ef_20230831_RB_1	E510A	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 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*	
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag FC-01_ef_20230831_RB_2	E510A	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag FC-01_ef_20230831_RB_3	E510A	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag FC-01_ef_20230831_RB_4	E510A	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag FC-01_ef_20230831_RB_5	E510A	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag FC-01_ef_20230831_RB_6	E510A	31-Aug-2023	11-Nov-2023	365 days	72 days	✓	15-Nov-2023	365 days	77 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_1 carcass*	E510A	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_1 muscle*	E510A	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_2 carcass*	E510A	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_2 muscle*	E510A	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 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 units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_3 carcass*	E510A	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_3 muscle*	E510A	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_4 carcass*	E510A	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_4 muscle*	E510A	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_5 carcass*	E510A	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_5 muscle*	E510A	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_6 carcass*	E510A	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_6 muscle*	E510A	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_7 carcass*	E510A	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 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 units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_7 muscle*	E510A	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_8 carcass*	E510A	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_8 muscle*	E510A	25-Aug-2023	11-Nov-2023	365 days	78 days	✓	14-Nov-2023	365 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag DC-5/DC-15_ef_20230824_RB_8	E472	24-Sep-2023	16-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	54 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag DC-9/DC-5_ef_20230822_RB_3	E472	23-Sep-2023	16-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag DC-9/DC-5_ef_20230822_RB_5	E472	23-Sep-2023	16-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag DC-9/DC-5_ef_20230822_RB_6	E472	23-Sep-2023	16-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag DC-9/DC-5_ef_20230822_RB_7	E472	23-Sep-2023	16-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TL-01_gn_20230907_MW_8 liver*	E472	07-Sep-2023	14-Nov-2023	730 days	68 days	✓	15-Nov-2023	730 days	69 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 TL-01_an_20230909_RB_1 liver *	E472	09-Sep-2023	16-Nov-2023	730 days	69 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TL-01_gn_20230909_RB_1 liver *	E472	09-Sep-2023	16-Nov-2023	730 days	69 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TL-01_gn_20230909_RB_2 liver *	E472	09-Sep-2023	16-Nov-2023	730 days	69 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TL-01_gn_20230909_RB_3 liver *	E472	09-Sep-2023	16-Nov-2023	730 days	69 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TL-01_gn_20230909_RB_4 liver *	E472	09-Sep-2023	16-Nov-2023	730 days	69 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TL-01_gn_20230909_RB_5 liver *	E472	09-Sep-2023	16-Nov-2023	730 days	69 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TL-01_gn_20230909_RB_6 liver *	E472	09-Sep-2023	16-Nov-2023	730 days	69 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TL-01_gn_20230909_RB_7 liver *	E472	09-Sep-2023	16-Nov-2023	730 days	69 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TL-01_gn_20230907_MW_1 liver *	E472	07-Sep-2023	16-Nov-2023	730 days	71 days	✓	16-Nov-2023	730 days	71 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*	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TL-01_gn_20230907_MW_2 liver *	E472	07-Sep-2023	16-Nov-2023	730 days	71 days	✓	16-Nov-2023	730 days	71 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TL-01_gn_20230907_MW_3 liver *	E472	07-Sep-2023	16-Nov-2023	730 days	71 days	✓	16-Nov-2023	730 days	71 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TL-01_gn_20230907_MW_4 liver*	E472	07-Sep-2023	16-Nov-2023	730 days	71 days	✓	16-Nov-2023	730 days	71 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TL-01_gn_20230907_MW_5 liver*	E472	07-Sep-2023	16-Nov-2023	730 days	71 days	✓	16-Nov-2023	730 days	71 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TL-01_gn_20230907_MW_6 liver*	E472	07-Sep-2023	16-Nov-2023	730 days	71 days	✓	16-Nov-2023	730 days	71 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TL-01_gn_20230907_MW_7 liver*	E472	07-Sep-2023	16-Nov-2023	730 days	71 days	✓	16-Nov-2023	730 days	71 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag FC-01_ef_20230831_RB_7	E472	31-Aug-2023	14-Nov-2023	730 days	75 days	✓	15-Nov-2023	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag FC-01_ef_20230831_RB_8	E472	31-Aug-2023	14-Nov-2023	730 days	75 days	✓	15-Nov-2023	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_1 liver *	E472	25-Aug-2023	14-Nov-2023	730 days	81 days	✓	15-Nov-2023	730 days	82 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 TL-01_ht_20230825_KO_1_2 liver*	E472	25-Aug-2023	14-Nov-2023	730 days	81 days	✓	15-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_3 liver*	E472	25-Aug-2023	14-Nov-2023	730 days	81 days	✓	15-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_4 liver*	E472	25-Aug-2023	14-Nov-2023	730 days	81 days	✓	15-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_5 liver *	E472	25-Aug-2023	14-Nov-2023	730 days	81 days	✓	15-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_6 liver*	E472	25-Aug-2023	14-Nov-2023	730 days	81 days	✓	15-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_7 liver*	E472	25-Aug-2023	14-Nov-2023	730 days	81 days	✓	15-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_8 liver*	E472	25-Aug-2023	14-Nov-2023	730 days	81 days	✓	15-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_1	E440	24-Sep-2023	11-Nov-2023	730 days	48 days	✓	15-Nov-2023	730 days	52 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_2	E440	24-Sep-2023	11-Nov-2023	730 days	48 days	✓	15-Nov-2023	730 days	52 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, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_3	E440	24-Sep-2023	11-Nov-2023	730 days	48 days	✓	15-Nov-2023	730 days	52 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_7	E440	24-Sep-2023	11-Nov-2023	730 days	48 days	✓	15-Nov-2023	730 days	52 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag DC-9/DC-5_ef_20230822_RB_1	E440	23-Sep-2023	11-Nov-2023	730 days	49 days	✓	15-Nov-2023	730 days	53 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag DC-9/DC-5_ef_20230822_RB_12	E440	23-Sep-2023	11-Nov-2023	730 days	49 days	✓	15-Nov-2023	730 days	53 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag DC-9/DC-5_ef_20230822_RB_2	E440	23-Sep-2023	11-Nov-2023	730 days	49 days	✓	15-Nov-2023	730 days	53 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag DC-9/DC-5_ef_20230822_RB_4	E440	23-Sep-2023	11-Nov-2023	730 days	49 days	✓	15-Nov-2023	730 days	53 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_5	E440	24-Sep-2023	17-Nov-2023	730 days	55 days	✓	21-Nov-2023	730 days	58 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_6	E440	24-Sep-2023	17-Nov-2023	730 days	55 days	✓	21-Nov-2023	730 days	58 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_4	E440	24-Sep-2023	22-Nov-2023	730 days	59 days	✓	22-Nov-2023	730 days	60 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, Routine)										
LDPE bag TL-01_an_20230909_RB_1 carcass *	E440	09-Sep-2023	11-Nov-2023	730 days	63 days	✓	15-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_an_20230909_RB_1 muscle *	E440	09-Sep-2023	11-Nov-2023	730 days	63 days	✓	15-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_1 carcass*	E440	09-Sep-2023	11-Nov-2023	730 days	63 days	✓	15-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_1 muscle*	E440	09-Sep-2023	11-Nov-2023	730 days	63 days	✓	15-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_2 carcass*	E440	09-Sep-2023	11-Nov-2023	730 days	63 days	✓	15-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_2 muscle*	E440	09-Sep-2023	11-Nov-2023	730 days	63 days	✓	15-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_3 carcass*	E440	09-Sep-2023	11-Nov-2023	730 days	63 days	✓	15-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_3 muscle*	E440	09-Sep-2023	11-Nov-2023	730 days	63 days	✓	15-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_4 carcass*	E440	09-Sep-2023	11-Nov-2023	730 days	63 days	✓	15-Nov-2023	730 days	67 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, Routine)										
LDPE bag TL-01_gn_20230909_RB_4 muscle*	E440	09-Sep-2023	11-Nov-2023	730 days	63 days	✓	15-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_5 muscle*	E440	09-Sep-2023	11-Nov-2023	730 days	63 days	✓	15-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_8 carcass*	E440	07-Sep-2023	11-Nov-2023	730 days	65 days	✓	15-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_5 carcass*	E440	09-Sep-2023	14-Nov-2023	730 days	67 days	✓	15-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_6 carcass*	E440	09-Sep-2023	14-Nov-2023	730 days	67 days	✓	15-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_6 muscle *	E440	09-Sep-2023	14-Nov-2023	730 days	67 days	✓	15-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_7 carcass*	E440	09-Sep-2023	14-Nov-2023	730 days	67 days	✓	15-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230909_RB_7 muscle *	E440	09-Sep-2023	14-Nov-2023	730 days	67 days	✓	15-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_1 carcass*	E440	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	15-Nov-2023	730 days	69 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, Routine)										
LDPE bag TL-01_gn_20230907_MW_1 muscle *	E440	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	15-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_2 carcass *	E440	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	15-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_2 muscle *	E440	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	15-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_3 carcass *	E440	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	15-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_3 muscle *	E440	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	15-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_4 carcass*	E440	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	15-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_4 muscle*	E440	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	15-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_5 carcass*	E440	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	15-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_5 muscle*	E440	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	15-Nov-2023	730 days	69 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, Routine)										
LDPE bag TL-01_gn_20230907_MW_6 carcass*	E440	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	15-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_6 muscle*	E440	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	15-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_7 carcass*	E440	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	15-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_7 muscle*	E440	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	15-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_gn_20230907_MW_8 muscle*	E440	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	15-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 661-01_ef_20230831_RB_1	E440	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	15-Nov-2023	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 661-01_ef_20230831_RB_2	E440	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	15-Nov-2023	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 661-01_ef_20230831_RB_3	E440	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	15-Nov-2023	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 661-01_ef_20230831_RB_4	E440	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	15-Nov-2023	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, Routine)										
LDPE bag 661-01_ef_20230831_RB_5	E440	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	15-Nov-2023	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 661-01_ef_20230831_RB_6	E440	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	15-Nov-2023	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 661-01_ef_20230831_RB_7	E440	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	15-Nov-2023	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 661-01_ef_20230831_RB_8	E440	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	15-Nov-2023	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag FC-01_ef_20230831_RB_1	E440	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	15-Nov-2023	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag FC-01_ef_20230831_RB_2	E440	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	15-Nov-2023	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag FC-01_ef_20230831_RB_3	E440	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	15-Nov-2023	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag FC-01_ef_20230831_RB_4	E440	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	15-Nov-2023	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag FC-01_ef_20230831_RB_5	E440	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	15-Nov-2023	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, Routine)										
LDPE bag FC-01_ef_20230831_RB_6	E440	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	15-Nov-2023	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_1 carcass*	E440	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	15-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_1 muscle*	E440	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	15-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_2 carcass*	E440	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	15-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_2 muscle*	E440	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	15-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_3 carcass*	E440	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	15-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_3 muscle*	E440	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	15-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_4 carcass*	E440	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	15-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_4 muscle*	E440	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	15-Nov-2023	730 days	82 days	✓

Matrix: **Biota**

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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, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_5 carcass*	E440	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	15-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_5 muscle*	E440	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	15-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_6 carcass*	E440	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	15-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_6 muscle*	E440	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	15-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_7 carcass*	E440	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	15-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_7 muscle*	E440	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	15-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_8 carcass*	E440	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	15-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_8 muscle*	E440	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	15-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag DC-5/DC-15_ef_20230824_RB_8	E472A	24-Sep-2023	16-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	54 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 units, Micro)										
LDPE bag DC-9/DC-5_ef_20230822_RB_3	E472A	23-Sep-2023	16-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag DC-9/DC-5_ef_20230822_RB_5	E472A	23-Sep-2023	16-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag DC-9/DC-5_ef_20230822_RB_6	E472A	23-Sep-2023	16-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag DC-9/DC-5_ef_20230822_RB_7	E472A	23-Sep-2023	16-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag TL-01_gn_20230907_MW_8 liver*	E472A	07-Sep-2023	14-Nov-2023	730 days	68 days	✓	14-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag TL-01_an_20230909_RB_1 liver *	E472A	09-Sep-2023	16-Nov-2023	730 days	69 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag TL-01_gn_20230909_RB_1 liver *	E472A	09-Sep-2023	16-Nov-2023	730 days	69 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag TL-01_gn_20230909_RB_2 liver *	E472A	09-Sep-2023	16-Nov-2023	730 days	69 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag TL-01_gn_20230909_RB_3 liver *	E472A	09-Sep-2023	16-Nov-2023	730 days	69 days	✓	16-Nov-2023	730 days	69 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 units, Micro)										
LDPE bag TL-01_gn_20230909_RB_4 liver *	E472A	09-Sep-2023	16-Nov-2023	730 days	69 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag TL-01_gn_20230909_RB_5 liver *	E472A	09-Sep-2023	16-Nov-2023	730 days	69 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag TL-01_gn_20230909_RB_6 liver *	E472A	09-Sep-2023	16-Nov-2023	730 days	69 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag TL-01_gn_20230909_RB_7 liver *	E472A	09-Sep-2023	16-Nov-2023	730 days	69 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag TL-01_gn_20230907_MW_1 liver *	E472A	07-Sep-2023	16-Nov-2023	730 days	71 days	✓	16-Nov-2023	730 days	71 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag TL-01_gn_20230907_MW_2 liver *	E472A	07-Sep-2023	16-Nov-2023	730 days	71 days	✓	16-Nov-2023	730 days	71 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag TL-01_gn_20230907_MW_3 liver *	E472A	07-Sep-2023	16-Nov-2023	730 days	71 days	✓	16-Nov-2023	730 days	71 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag TL-01_gn_20230907_MW_4 liver*	E472A	07-Sep-2023	16-Nov-2023	730 days	71 days	✓	16-Nov-2023	730 days	71 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag TL-01_gn_20230907_MW_5 liver*	E472A	07-Sep-2023	16-Nov-2023	730 days	71 days	✓	16-Nov-2023	730 days	71 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 units, Micro)										
LDPE bag TL-01_gn_20230907_MW_6 liver*	E472A	07-Sep-2023	16-Nov-2023	730 days	71 days	✓	16-Nov-2023	730 days	71 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag TL-01_gn_20230907_MW_7 liver*	E472A	07-Sep-2023	16-Nov-2023	730 days	71 days	✓	16-Nov-2023	730 days	71 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag FC-01_ef_20230831_RB_7	E472A	31-Aug-2023	14-Nov-2023	730 days	75 days	✓	14-Nov-2023	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag FC-01_ef_20230831_RB_8	E472A	31-Aug-2023	14-Nov-2023	730 days	75 days	✓	14-Nov-2023	730 days	76 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_1 liver *	E472A	25-Aug-2023	14-Nov-2023	730 days	81 days	✓	14-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_2 liver*	E472A	25-Aug-2023	14-Nov-2023	730 days	81 days	✓	14-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_3 liver*	E472A	25-Aug-2023	14-Nov-2023	730 days	81 days	✓	14-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_4 liver*	E472A	25-Aug-2023	14-Nov-2023	730 days	81 days	✓	14-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_5 liver *	E472A	25-Aug-2023	14-Nov-2023	730 days	81 days	✓	14-Nov-2023	730 days	82 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 units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_6 liver*	E472A	25-Aug-2023	14-Nov-2023	730 days	81 days	✓	14-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_7 liver*	E472A	25-Aug-2023	14-Nov-2023	730 days	81 days	✓	14-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag TL-01_ht_20230825_KO_1_8 liver*	E472A	25-Aug-2023	14-Nov-2023	730 days	81 days	✓	14-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_1	E440A	24-Sep-2023	11-Nov-2023	730 days	48 days	✓	14-Nov-2023	730 days	52 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_2	E440A	24-Sep-2023	11-Nov-2023	730 days	48 days	✓	14-Nov-2023	730 days	52 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_3	E440A	24-Sep-2023	11-Nov-2023	730 days	48 days	✓	14-Nov-2023	730 days	52 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_7	E440A	24-Sep-2023	11-Nov-2023	730 days	48 days	✓	14-Nov-2023	730 days	52 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag DC-9/DC-5_ef_20230822_RB_1	E440A	23-Sep-2023	11-Nov-2023	730 days	49 days	✓	14-Nov-2023	730 days	53 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag DC-9/DC-5_ef_20230822_RB_12	E440A	23-Sep-2023	11-Nov-2023	730 days	49 days	✓	14-Nov-2023	730 days	53 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 units, Routine)										
LDPE bag DC-9/DC-5_ef_20230822_RB_2	E440A	23-Sep-2023	11-Nov-2023	730 days	49 days	✓	14-Nov-2023	730 days	53 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag DC-9/DC-5_ef_20230822_RB_4	E440A	23-Sep-2023	11-Nov-2023	730 days	49 days	✓	14-Nov-2023	730 days	53 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_5	E440A	24-Sep-2023	17-Nov-2023	730 days	55 days	✓	21-Nov-2023	730 days	58 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_6	E440A	24-Sep-2023	17-Nov-2023	730 days	55 days	✓	21-Nov-2023	730 days	58 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag DC-5/DC-15_ef_20230824_RB_4	E440A	24-Sep-2023	22-Nov-2023	730 days	59 days	✓	23-Nov-2023	730 days	61 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_an_20230909_RB_1 carcass *	E440A	09-Sep-2023	11-Nov-2023	730 days	63 days	✓	14-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_an_20230909_RB_1 muscle *	E440A	09-Sep-2023	11-Nov-2023	730 days	63 days	✓	14-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_1 carcass*	E440A	09-Sep-2023	11-Nov-2023	730 days	63 days	✓	14-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_1 muscle*	E440A	09-Sep-2023	11-Nov-2023	730 days	63 days	✓	14-Nov-2023	730 days	67 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 units, Routine)										
LDPE bag TL-01_gn_20230909_RB_2 carcass*	E440A	09-Sep-2023	11-Nov-2023	730 days	63 days	✓	14-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_2 muscle*	E440A	09-Sep-2023	11-Nov-2023	730 days	63 days	✓	14-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_3 carcass*	E440A	09-Sep-2023	11-Nov-2023	730 days	63 days	✓	14-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_3 muscle*	E440A	09-Sep-2023	11-Nov-2023	730 days	63 days	✓	14-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_4 carcass*	E440A	09-Sep-2023	11-Nov-2023	730 days	63 days	✓	14-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_4 muscle*	E440A	09-Sep-2023	11-Nov-2023	730 days	63 days	✓	14-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_5 muscle*	E440A	09-Sep-2023	11-Nov-2023	730 days	63 days	✓	14-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_8 carcass*	E440A	07-Sep-2023	11-Nov-2023	730 days	65 days	✓	14-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_5 carcass*	E440A	09-Sep-2023	14-Nov-2023	730 days	67 days	✓	14-Nov-2023	730 days	67 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 units, Routine)										
LDPE bag TL-01_gn_20230909_RB_6 carcass*	E440A	09-Sep-2023	14-Nov-2023	730 days	67 days	✓	14-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_6 muscle *	E440A	09-Sep-2023	14-Nov-2023	730 days	67 days	✓	14-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_7 carcass*	E440A	09-Sep-2023	14-Nov-2023	730 days	67 days	✓	14-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230909_RB_7 muscle *	E440A	09-Sep-2023	14-Nov-2023	730 days	67 days	✓	14-Nov-2023	730 days	67 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_1 carcass*	E440A	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	14-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_1 muscle *	E440A	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	14-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_2 carcass *	E440A	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	14-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_2 muscle *	E440A	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	14-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_3 carcass *	E440A	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	14-Nov-2023	730 days	69 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 units, Routine)										
LDPE bag TL-01_gn_20230907_MW_3 muscle *	E440A	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	14-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_4 carcass*	E440A	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	14-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_4 muscle*	E440A	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	14-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_5 carcass*	E440A	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	14-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_5 muscle*	E440A	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	14-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_6 carcass*	E440A	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	14-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_6 muscle*	E440A	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	14-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_7 carcass*	E440A	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	14-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_gn_20230907_MW_7 muscle*	E440A	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	14-Nov-2023	730 days	69 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 units, Routine)										
LDPE bag TL-01_gn_20230907_MW_8 muscle*	E440A	07-Sep-2023	14-Nov-2023	730 days	69 days	✓	14-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 661-01_ef_20230831_RB_1	E440A	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	14-Nov-2023	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 661-01_ef_20230831_RB_2	E440A	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	14-Nov-2023	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 661-01_ef_20230831_RB_3	E440A	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	14-Nov-2023	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 661-01_ef_20230831_RB_4	E440A	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	14-Nov-2023	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 661-01_ef_20230831_RB_5	E440A	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	14-Nov-2023	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 661-01_ef_20230831_RB_6	E440A	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	14-Nov-2023	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 661-01_ef_20230831_RB_7	E440A	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	14-Nov-2023	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 661-01_ef_20230831_RB_8	E440A	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	14-Nov-2023	730 days	75 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 units, Routine)										
LDPE bag FC-01_ef_20230831_RB_1	E440A	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	14-Nov-2023	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag FC-01_ef_20230831_RB_2	E440A	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	14-Nov-2023	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag FC-01_ef_20230831_RB_3	E440A	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	14-Nov-2023	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag FC-01_ef_20230831_RB_4	E440A	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	14-Nov-2023	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag FC-01_ef_20230831_RB_5	E440A	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	14-Nov-2023	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag FC-01_ef_20230831_RB_6	E440A	31-Aug-2023	11-Nov-2023	730 days	72 days	✓	14-Nov-2023	730 days	75 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_1 carcass*	E440A	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	14-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_1 muscle*	E440A	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	14-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_2 carcass*	E440A	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	14-Nov-2023	730 days	82 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 units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_2 muscle*	E440A	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	14-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_3 carcass*	E440A	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	14-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_3 muscle*	E440A	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	14-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_4 carcass*	E440A	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	14-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_4 muscle*	E440A	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	14-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_5 carcass*	E440A	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	14-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_5 muscle*	E440A	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	14-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_6 carcass*	E440A	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	14-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_6 muscle*	E440A	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	14-Nov-2023	730 days	82 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*	
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_7 carcass*	E440A	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	14-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_7 muscle*	E440A	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	14-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_8 carcass*	E440A	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	14-Nov-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TL-01_ht_20230825_KO_1_8 muscle*	E440A	25-Aug-2023	11-Nov-2023	730 days	78 days	✓	14-Nov-2023	730 days	82 days	✓
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag DC-5/DC-15_ef_20230824_RB_8	E144-H	24-Sep-2023	----	----	----		16-Nov-2023	----	53 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag DC-9/DC-5_ef_20230822_RB_3	E144-H	23-Sep-2023	----	----	----		16-Nov-2023	----	54 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag DC-9/DC-5_ef_20230822_RB_5	E144-H	23-Sep-2023	----	----	----		16-Nov-2023	----	54 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag DC-9/DC-5_ef_20230822_RB_6	E144-H	23-Sep-2023	----	----	----		16-Nov-2023	----	54 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag DC-9/DC-5_ef_20230822_RB_7	E144-H	23-Sep-2023	----	----	----		16-Nov-2023	----	54 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 : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_an_20230909_RB_1 liver *	E144-H	09-Sep-2023	----	----	----		16-Nov-2023	----	68 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_gn_20230907_MW_8 liver*	E144-H	07-Sep-2023	----	----	----		14-Nov-2023	----	68 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_gn_20230909_RB_1 liver *	E144-H	09-Sep-2023	----	----	----		16-Nov-2023	----	68 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_gn_20230909_RB_2 liver *	E144-H	09-Sep-2023	----	----	----		16-Nov-2023	----	68 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_gn_20230909_RB_3 liver *	E144-H	09-Sep-2023	----	----	----		16-Nov-2023	----	68 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_gn_20230909_RB_4 liver *	E144-H	09-Sep-2023	----	----	----		16-Nov-2023	----	68 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_gn_20230909_RB_5 liver *	E144-H	09-Sep-2023	----	----	----		16-Nov-2023	----	68 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_gn_20230909_RB_6 liver *	E144-H	09-Sep-2023	----	----	----		16-Nov-2023	----	68 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_gn_20230909_RB_7 liver *	E144-H	09-Sep-2023	----	----	----		16-Nov-2023	----	68 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 : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_gn_20230907_MW_1 liver *	E144-H	07-Sep-2023	----	----	----		16-Nov-2023	----	70 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_gn_20230907_MW_2 liver *	E144-H	07-Sep-2023	----	----	----		16-Nov-2023	----	70 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_gn_20230907_MW_3 liver *	E144-H	07-Sep-2023	----	----	----		16-Nov-2023	----	70 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_gn_20230907_MW_4 liver*	E144-H	07-Sep-2023	----	----	----		16-Nov-2023	----	70 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_gn_20230907_MW_5 liver*	E144-H	07-Sep-2023	----	----	----		16-Nov-2023	----	70 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_gn_20230907_MW_6 liver*	E144-H	07-Sep-2023	----	----	----		16-Nov-2023	----	70 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_gn_20230907_MW_7 liver*	E144-H	07-Sep-2023	----	----	----		16-Nov-2023	----	70 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag FC-01_ef_20230831_RB_7	E144-H	31-Aug-2023	----	----	----		14-Nov-2023	----	75 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag FC-01_ef_20230831_RB_8	E144-H	31-Aug-2023	----	----	----		14-Nov-2023	----	75 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 : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_ht_20230825_KO_1_1 liver *	E144-H	25-Aug-2023	----	----	----		14-Nov-2023	----	81 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_ht_20230825_KO_1_2 liver*	E144-H	25-Aug-2023	----	----	----		14-Nov-2023	----	81 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_ht_20230825_KO_1_3 liver*	E144-H	25-Aug-2023	----	----	----		14-Nov-2023	----	81 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_ht_20230825_KO_1_4 liver*	E144-H	25-Aug-2023	----	----	----		14-Nov-2023	----	81 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_ht_20230825_KO_1_5 liver *	E144-H	25-Aug-2023	----	----	----		14-Nov-2023	----	81 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_ht_20230825_KO_1_6 liver*	E144-H	25-Aug-2023	----	----	----		14-Nov-2023	----	81 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_ht_20230825_KO_1_7 liver*	E144-H	25-Aug-2023	----	----	----		14-Nov-2023	----	81 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TL-01_ht_20230825_KO_1_8 liver*	E144-H	25-Aug-2023	----	----	----		14-Nov-2023	----	81 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag DC-5/DC-15_ef_20230824_RB_1	E144	24-Sep-2023	----	----	----		08-Nov-2023	----	46 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 : Moisture Content by Gravimetry										
LDPE bag DC-5/DC-15_ef_20230824_RB_2	E144	24-Sep-2023	----	----	----		08-Nov-2023	----	46 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag DC-5/DC-15_ef_20230824_RB_3	E144	24-Sep-2023	----	----	----		08-Nov-2023	----	46 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag DC-5/DC-15_ef_20230824_RB_7	E144	24-Sep-2023	----	----	----		08-Nov-2023	----	46 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag DC-9/DC-5_ef_20230822_RB_1	E144	23-Sep-2023	----	----	----		08-Nov-2023	----	47 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag DC-9/DC-5_ef_20230822_RB_12	E144	23-Sep-2023	----	----	----		08-Nov-2023	----	47 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag DC-9/DC-5_ef_20230822_RB_2	E144	23-Sep-2023	----	----	----		08-Nov-2023	----	47 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag DC-9/DC-5_ef_20230822_RB_4	E144	23-Sep-2023	----	----	----		08-Nov-2023	----	47 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag DC-5/DC-15_ef_20230824_RB_4	E144	24-Sep-2023	----	----	----		16-Nov-2023	----	53 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag DC-5/DC-15_ef_20230824_RB_5	E144	24-Sep-2023	----	----	----		16-Nov-2023	----	53 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 : Moisture Content by Gravimetry										
LDPE bag DC-5/DC-15_ef_20230824_RB_6	E144	24-Sep-2023	----	----	----		16-Nov-2023	----	53 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_an_20230909_RB_1 carcass *	E144	09-Sep-2023	----	----	----		08-Nov-2023	----	61 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_an_20230909_RB_1 muscle *	E144	09-Sep-2023	----	----	----		08-Nov-2023	----	61 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230909_RB_1 carcass*	E144	09-Sep-2023	----	----	----		08-Nov-2023	----	61 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230909_RB_1 muscle*	E144	09-Sep-2023	----	----	----		08-Nov-2023	----	61 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230909_RB_2 carcass*	E144	09-Sep-2023	----	----	----		08-Nov-2023	----	61 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230909_RB_2 muscle*	E144	09-Sep-2023	----	----	----		08-Nov-2023	----	61 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230909_RB_3 carcass*	E144	09-Sep-2023	----	----	----		08-Nov-2023	----	61 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230909_RB_3 muscle*	E144	09-Sep-2023	----	----	----		08-Nov-2023	----	61 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 : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230909_RB_4 carcass*	E144	09-Sep-2023	----	----	----		08-Nov-2023	----	61 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230909_RB_4 muscle*	E144	09-Sep-2023	----	----	----		08-Nov-2023	----	61 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230909_RB_5 carcass*	E144	09-Sep-2023	----	----	----		08-Nov-2023	----	61 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230909_RB_5 muscle*	E144	09-Sep-2023	----	----	----		08-Nov-2023	----	61 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230909_RB_6 carcass*	E144	09-Sep-2023	----	----	----		08-Nov-2023	----	61 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230909_RB_6 muscle *	E144	09-Sep-2023	----	----	----		08-Nov-2023	----	61 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230909_RB_7 carcass*	E144	09-Sep-2023	----	----	----		08-Nov-2023	----	61 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230909_RB_7 muscle *	E144	09-Sep-2023	----	----	----		08-Nov-2023	----	61 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230907_MW_1 carcass*	E144	07-Sep-2023	----	----	----		08-Nov-2023	----	63 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 : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230907_MW_1 muscle *	E144	07-Sep-2023	----	----	----		08-Nov-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230907_MW_2 carcass *	E144	07-Sep-2023	----	----	----		08-Nov-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230907_MW_2 muscle *	E144	07-Sep-2023	----	----	----		08-Nov-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230907_MW_3 carcass *	E144	07-Sep-2023	----	----	----		08-Nov-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230907_MW_3 muscle *	E144	07-Sep-2023	----	----	----		08-Nov-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230907_MW_4 carcass*	E144	07-Sep-2023	----	----	----		08-Nov-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230907_MW_4 muscle*	E144	07-Sep-2023	----	----	----		08-Nov-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230907_MW_5 carcass*	E144	07-Sep-2023	----	----	----		08-Nov-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230907_MW_5 muscle*	E144	07-Sep-2023	----	----	----		08-Nov-2023	----	63 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 : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230907_MW_6 carcass*	E144	07-Sep-2023	----	----	----		08-Nov-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230907_MW_6 muscle*	E144	07-Sep-2023	----	----	----		08-Nov-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230907_MW_7 carcass*	E144	07-Sep-2023	----	----	----		08-Nov-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230907_MW_7 muscle*	E144	07-Sep-2023	----	----	----		08-Nov-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230907_MW_8 carcass*	E144	07-Sep-2023	----	----	----		08-Nov-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_gn_20230907_MW_8 muscle*	E144	07-Sep-2023	----	----	----		08-Nov-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 661-01_ef_20230831_RB_1	E144	31-Aug-2023	----	----	----		08-Nov-2023	----	70 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 661-01_ef_20230831_RB_2	E144	31-Aug-2023	----	----	----		08-Nov-2023	----	70 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 661-01_ef_20230831_RB_3	E144	31-Aug-2023	----	----	----		08-Nov-2023	----	70 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 : Moisture Content by Gravimetry										
LDPE bag 661-01_ef_20230831_RB_4	E144	31-Aug-2023	----	----	----		08-Nov-2023	----	70 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 661-01_ef_20230831_RB_5	E144	31-Aug-2023	----	----	----		08-Nov-2023	----	70 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 661-01_ef_20230831_RB_6	E144	31-Aug-2023	----	----	----		08-Nov-2023	----	70 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 661-01_ef_20230831_RB_7	E144	31-Aug-2023	----	----	----		08-Nov-2023	----	70 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 661-01_ef_20230831_RB_8	E144	31-Aug-2023	----	----	----		08-Nov-2023	----	70 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag FC-01_ef_20230831_RB_1	E144	31-Aug-2023	----	----	----		08-Nov-2023	----	70 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag FC-01_ef_20230831_RB_2	E144	31-Aug-2023	----	----	----		08-Nov-2023	----	70 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag FC-01_ef_20230831_RB_3	E144	31-Aug-2023	----	----	----		08-Nov-2023	----	70 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag FC-01_ef_20230831_RB_4	E144	31-Aug-2023	----	----	----		08-Nov-2023	----	70 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 : Moisture Content by Gravimetry										
LDPE bag FC-01_ef_20230831_RB_5	E144	31-Aug-2023	----	----	----		08-Nov-2023	----	70 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag FC-01_ef_20230831_RB_6	E144	31-Aug-2023	----	----	----		08-Nov-2023	----	70 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_ht_20230825_KO_1_1 carcass*	E144	25-Aug-2023	----	----	----		08-Nov-2023	----	76 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_ht_20230825_KO_1_1 muscle*	E144	25-Aug-2023	----	----	----		08-Nov-2023	----	76 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_ht_20230825_KO_1_2 carcass*	E144	25-Aug-2023	----	----	----		08-Nov-2023	----	76 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_ht_20230825_KO_1_2 muscle*	E144	25-Aug-2023	----	----	----		08-Nov-2023	----	76 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_ht_20230825_KO_1_3 carcass*	E144	25-Aug-2023	----	----	----		08-Nov-2023	----	76 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_ht_20230825_KO_1_3 muscle*	E144	25-Aug-2023	----	----	----		08-Nov-2023	----	76 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_ht_20230825_KO_1_4 carcass*	E144	25-Aug-2023	----	----	----		08-Nov-2023	----	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*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_ht_20230825_KO_1_4 muscle*	E144	25-Aug-2023	----	----	----		08-Nov-2023	----	76 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_ht_20230825_KO_1_5 carcass*	E144	25-Aug-2023	----	----	----		08-Nov-2023	----	76 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_ht_20230825_KO_1_5 muscle*	E144	25-Aug-2023	----	----	----		08-Nov-2023	----	76 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_ht_20230825_KO_1_6 carcass*	E144	25-Aug-2023	----	----	----		08-Nov-2023	----	76 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_ht_20230825_KO_1_6 muscle*	E144	25-Aug-2023	----	----	----		08-Nov-2023	----	76 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_ht_20230825_KO_1_7 carcass*	E144	25-Aug-2023	----	----	----		08-Nov-2023	----	76 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_ht_20230825_KO_1_7 muscle*	E144	25-Aug-2023	----	----	----		08-Nov-2023	----	76 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_ht_20230825_KO_1_8 carcass*	E144	25-Aug-2023	----	----	----		08-Nov-2023	----	76 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TL-01_ht_20230825_KO_1_8 muscle*	E144	25-Aug-2023	----	----	----		08-Nov-2023	----	76 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)							
Mercury in Biota by CVAAS (DRY units, Micro)	E511	1235627	2	31	6.4	5.0	✓
Mercury in Biota by CVAAS (DRY units, Routine)	E510	1232986	5	99	5.0	5.0	✓
Mercury in Biota by CVAAS (WET units, Micro)	E511A	1235628	2	31	6.4	5.0	✓
Mercury in Biota by CVAAS (WET units, Routine)	E510A	1232983	5	99	5.0	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	1235629	2	31	6.4	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	1232985	5	99	5.0	5.0	✓
Metals in Biota by CRC ICPMS (WET units, Micro)	E472A	1235626	2	31	6.4	5.0	✓
Metals in Biota by CRC ICPMS (WET units, Routine)	E440A	1232984	5	99	5.0	5.0	✓
Moisture Content by Gravimetry	E144	1229592	5	76	6.5	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	1235630	2	31	6.4	5.0	✓
Laboratory Control Samples (LCS)							
Mercury in Biota by CVAAS (DRY units, Micro)	E511	1235627	4	31	12.9	10.0	✓
Mercury in Biota by CVAAS (DRY units, Routine)	E510	1232986	12	99	12.1	10.0	✓
Mercury in Biota by CVAAS (WET units, Micro)	E511A	1235628	4	31	12.9	10.0	✓
Mercury in Biota by CVAAS (WET units, Routine)	E510A	1232983	12	99	12.1	10.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	1235629	4	31	12.9	10.0	✓
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	1232985	12	99	12.1	10.0	✓
Metals in Biota by CRC ICPMS (WET units, Micro)	E472A	1235626	4	31	12.9	10.0	✓
Metals in Biota by CRC ICPMS (WET units, Routine)	E440A	1232984	12	99	12.1	10.0	✓
Moisture Content by Gravimetry	E144	1229592	5	76	6.5	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	1235630	2	31	6.4	5.0	✓
Method Blanks (MB)							
Mercury in Biota by CVAAS (DRY units, Micro)	E511	1235627	2	31	6.4	5.0	✓
Mercury in Biota by CVAAS (DRY units, Routine)	E510	1232986	6	99	6.0	5.0	✓
Mercury in Biota by CVAAS (WET units, Micro)	E511A	1235628	2	31	6.4	5.0	✓
Mercury in Biota by CVAAS (WET units, Routine)	E510A	1232983	6	99	6.0	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	1235629	2	31	6.4	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	1232985	6	99	6.0	5.0	✓
Metals in Biota by CRC ICPMS (WET units, Micro)	E472A	1235626	2	31	6.4	5.0	✓
Metals in Biota by CRC ICPMS (WET units, Routine)	E440A	1232984	6	99	6.0	5.0	✓
Moisture Content by Gravimetry	E144	1229592	5	76	6.5	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	1235630	2	31	6.4	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
Moisture Content by Gravimetry	E144 ALS Environmental - Vancouver	Biota	Puget Sound Water Quality Authority/CCME PHC in Soil - Tier 1	Moisture is measured gravimetrically by drying the sample at 105°C. 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	Puget Sound Water Quality Authority/BC MOE Lab Manual	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 soil, expressed as a percentage.
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440 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 units, Routine)	E440A 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 (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 units, 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.
Mercury in Biota by CVAAS (DRY units, Routine)	E510 ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with HNO3, HCl, and H2O2. Analysis is by CVAAS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Mercury in Biota by CVAAS (WET units, Routine)	E510A ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with HNO3, HCl, and H2O2. Analysis is by CVAAS.
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 units, 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.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Metals and Mercury Biota Digestion	EP440 ALS Environmental - Vancouver	Biota	EPA 200.3	This method 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 (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.

WO#	Client ID	Fish total Body Weight (g)	Liver Weight (g)	Muscle Tissue weight (g)
VA23C2929-001	DC-9/DC-5_ef_20230822_RB_1	5.0125		
VA23C2929-002	DC-9/DC-5_ef_20230822_RB_2	4.3641		
VA23C2929-003	DC-9/DC-5_ef_20230822_RB_3	2.7541		
VA23C2929-004	DC-9/DC-5_ef_20230822_RB_4	5.4821		
VA23C2929-005	DC-9/DC-5_ef_20230822_RB_5	3.223		
VA23C2929-006	DC-9/DC-5_ef_20230822_RB_6	3.76		
VA23C2929-007	DC-9/DC-5_ef_20230822_RB_7	1.1706		
VA23C2929-008	DC-9/DC-5_ef_20230822_RB_12	5.9168		
VA23C2929-009	DC-5/DC-15_ef_20230824_RB_1	14.2397		
VA23C2929-010	DC-5/DC-15_ef_20230824_RB_2	9.9163		
VA23C2929-011	DC-5/DC-15_ef_20230824_RB_3	5.1844		
VA23C2929-012	DC-5/DC-15_ef_20230824_RB_4	4.8675		
VA23C2929-013	DC-5/DC-15_ef_20230824_RB_5	3.8429		
VA23C2929-014	DC-5/DC-15_ef_20230824_RB_6	4.4114		
VA23C2929-015	DC-5/DC-15_ef_20230824_RB_7	6.7496		
VA23C2929-016	DC-5/DC-15_ef_20230824_RB_8	3.3804		
VA23C2929-017-018-019	TL-01_an_20230909_RB_1	60	0.383	7.235
VA23C2929-020-021-022	TL-01_gn_20230909_RB_1	360	3.904	36.686
VA23C2929-023-024-025	TL-01_gn_20230909_RB_2	280	2.505	35.999
VA23C2929-026-027-028	TL-01_gn_20230909_RB_3	300	3.693	37.705
VA23C2929-029-030-031	TL-01_gn_20230909_RB_4	280	2.239	32.866
VA23C2929-032-033-034	TL-01_gn_20230909_RB_5	140	1.548	16.348
VA23C2929-035-036-037	TL-01_gn_20230909_RB_6	220	2.873	22.32
VA23C2929-038-039-040	TL-01_gn_20230909_RB_7	200	1.691	25.072
VA23C2929-041-042-043	TL-01_gn_20230907_MW_1	140	0.916	14.862
VA23C2929-044-045-046	TL-01_gn_20230907_MW_2	140	1.04	9.602
VA23C2929-047-048-049	TL-01_gn_20230907_MW_3	140	0.844	12.127
VA23C2929-050-051-052	TL-01_gn_20230907_MW_4	340	4.04	33.274
VA23C2929-053-054-055	TL-01_gn_20230907_MW_5	360	3.749	39.019
VA23C2929-056-057-058	TL-01_gn_20230907_MW_6	100	0.677	10.438
VA23C2929-059-060-061	TL-01_gn_20230907_MW_7	140	0.718	10.853
VA23C2929-062-063-064	TL-01_gn_20230907_MW_8	260	1.908	27.238
VA23C2929-065-066-067	TL-01_gn_20230907_MW_9	240	1.497	21.677
VA23C2929-068-069-070	TL-01_ht_20230825_KO_1_1	140	1.841	13.914
VA23C2929-071-072-073	TL-01_ht_20230825_KO_1_2	140	1.462	14.715
VA23C2929-074-075-076	TL-01_ht_20230825_KO_1_3	120	1.117	13.176
VA23C2929-077-078-079	TL-01_ht_20230825_KO_1_4	100	1.222	9.962
VA23C2929-080-081-082	TL-01_ht_20230825_KO_1_5	120	1.315	10.869
VA23C2929-083-084-085	TL-01_ht_20230825_KO_1_6	80	1.286	4.955
VA23C2929-086-087-088	TL-01_ht_20230825_KO_1_7	100	1.004	8.644
VA23C2929-089-090-091	TL-01_ht_20230825_KO_1_8	80	0.998	7.505
VA23C2929-092-093-094	TL-01_ht_20230825_RB_1_9	40	0.913	5.431
VA23C2929-095-096-097	TL-01_ht_20230825_RB_1_10	260	1.731	22.265
VA23C2929-098	661-01_ef_20230831_RB_1	10.1875		
VA23C2929-099	661-01_ef_20230831_RB_2	8.388		
VA23C2929-100	661-01_ef_20230831_RB_3	9.3663		
VA23C2929-101	661-01_ef_20230831_RB_4	7.3597		
VA23C2929-102	661-01_ef_20230831_RB_5	10.0563		
VA23C2929-103	661-01_ef_20230831_RB_6	8.7064		
VA23C2929-104	661-01_ef_20230831_RB_7	9.1807		
VA23C2929-105	661-01_ef_20230831_RB_8	9.9838		
VA23C2929-106	FC-01_ef_20230831_RB_1	22.0601		
VA23C2929-107	FC-01_ef_20230831_RB_2	21.8654		
VA23C2929-108	FC-01_ef_20230831_RB_3	31.429		
VA23C2929-109	FC-01_ef_20230831_RB_4	22.5657		
VA23C2929-110	FC-01_ef_20230831_RB_5	22.0622		
VA23C2929-111	FC-01_ef_20230831_RB_6	22.1009		
VA23C2929-112	FC-01_ef_20230831_RB_7	1.7996		
VA23C2929-113	FC-01_ef_20230831_RB_8	1.1868		

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -
Page 1 of 14

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Environmental Division Vancouver
Work Order Reference
VA23C2929

Telephone : +1 604 253 4188

Report To	Contact and company name below will appear on the final report
Company:	Palmer Environmental Consulting Group
Contact:	Marissa Heppner
Phone:	604 703 9610 / marissa.heppner@pecg.ca
	Company address below will appear on the final report
Street:	470 Granville Street #630
City/Province:	Vancouver, BC
Postal Code:	V6C 1V5
Invoice To	Same as Report To ☐ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Ltd.
Contact:	Accounts Payable

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Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: accounts@artemisgoldinc.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 minimu
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimu
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimu
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge

Additional fees may apply to rush requests on weekends, statutory

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 #: VA23-BWGL100-002
Job #: 2006506
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: Amber Springer Sampler: Marissa Heppn

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 incl. mercury	Arsenic speciation	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes
	DC-9/DC-5_ef_20230822_RB_1	23-Aug-22	-	Frozen Fish	1	R	R				
	DC-9/DC-5_ef_20230822_RB_2	23-Aug-22	-	Frozen Fish	1	R	R				
	DC-9/DC-5_ef_20230822_RB_3	23-Aug-22	-	Frozen Fish	1	R	R				
	DC-9/DC-5_ef_20230822_RB_4	23-Aug-22	-	Frozen Fish	1	R	R				
	DC-9/DC-5_ef_20230822_RB_5	23-Aug-22	-	Frozen Fish	1	R	R				
	DC-9/DC-5_ef_20230822_RB_6	23-Aug-22	-	Frozen Fish	1	R	R				
	DC-9/DC-5_ef_20230822_RB_7	23-Aug-22	-	Frozen Fish	1	R	R				
	DC-9/DC-5_ef_20230822_RB_12	23-Aug-22	-	Frozen Fish	1	R	R				

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

* Sample must be dissected into liver, muscle, and remaining carcass and processed separately. Record liver weight for each sample. Arsenic speciation is required for muscle samples only.

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			
				-4	-9		

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
Marissa Heppner	September 27 2023	

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
TC	26 Sep 23	1150 hrs

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

COC pages 1 to 14

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -
Page 2 of 14

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	Palmer Environmental Consulting Group
Contact:	Marissa Heppner
Phone:	604 703 9610 / marissa.heppner@pecg.ca
	Company address below will appear on the final report
Street:	470 Granville Street #630
City/Province:	Vancouver, BC
Postal Code:	V6C 1V5
Invoice To	Same as Report To ☐ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Ltd.
Contact:	Accounts Payable

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: marissa.heppner@pecg.ca
Email 2: ktanaka@artemisgoldinc.com
Email 3: lshelley@entiaenviro.com

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: accounts@artemisgoldinc.com
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Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

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AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	VA23-BWGL100-002
Job #:	2006506
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: Amber Springer **Sampler:** Marissa Heppn

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 incl. mercury	Arsenic speciation	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	DC-5/DC-15_ef_20230824_RB_1	24-Aug-23	-	Frozen Fish	1	R	R				
	DC-5/DC-15_ef_20230824_RB_2	24-Aug-23	-	Frozen Fish	1	R	R				
	DC-5/DC-15_ef_20230824_RB_3	24-Aug-23	-	Frozen Fish	1	R	R				
	DC-5/DC-15_ef_20230824_RB_4	24-Aug-23	-	Frozen Fish	1	R	R				
	DC-5/DC-15_ef_20230824_RB_5	24-Aug-23	-	Frozen Fish	1	R	R				
	DC-5/DC-15_ef_20230824_RB_6	24-Aug-23	-	Frozen Fish	1	R	R				
	DC-5/DC-15_ef_20230824_RB_7	24-Aug-23	-	Frozen Fish	1	R	R				
	DC-5/DC-15_ef_20230824_RB_8	24-Aug-23	-	Frozen Fish	1	R	R				

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

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

* Sample must be dissected into liver, muscle, and remaining carcass and processed separately. Record liver weight for each sample. Arsenic speciation is required for muscle samples only.

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			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by: Marissa Heppner	Date: September 27 2023	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY AUG 2020 FRONT

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Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	Palmer Environmental Consulting Group
Contact:	Marissa Heppner
Phone:	604 703 9610 / marissa.heppner@pecg.ca
	Company address below will appear on the final report
Street:	470 Granville Street #630
City/Province:	Vancouver, BC
Postal Code:	V6C 1V5
Invoice To	Same as Report To ☐ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Ltd.
Contact:	Accounts Payable

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: marissa.heppner@pecg.ca

Email 2: ktanaka@artemisgoldinc.com

Email 3: lshelley@entiaenviro.com

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: accounts@artemisgoldinc.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

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☐ 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 Account # / Quote #:	VA23-BWGL100-002
Job #:	2006506
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: Amber Springer **Sampler:** Marissa Heppn

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 incl. mercury	Arsenic speciation	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	TL-01_an_20230909_RB_1	9-Sep-23		Frozen Fish	1	R	R				
	TL-01_gn_20230909_RB_1	9-Sep-23		Frozen Fish	1	R	R				
	TL-01_gn_20230909_RB_2	9-Sep-23		Frozen Fish	1	R	R				
	TL-01_gn_20230909_RB_3	9-Sep-23		Frozen Fish	1	R	R				
	TL-01_gn_20230909_RB_4	9-Sep-23		Frozen Fish	1	R	R				
	TL-01_gn_20230909_RB_5	9-Sep-23		Frozen Fish	1	R	R				
	TL-01_gn_20230909_RB_6	9-Sep-23		Frozen Fish	1	R	R				
	TL-01_gn_20230909_RB_7	9-Sep-23		Frozen Fish	1	R	R				

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

Are samples taken from a Regulated DW System?

☐ YES ☑ NO

Are samples for human consumption/ use?

☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

* Sample must be dissected into liver, muscle, and remaining carcass and processed separately. Record liver weight for each sample. Arsenic speciation is required for muscle samples only.

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			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by: Marissa Heppner	Date: September 27 2023	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 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: 20 -

Page 4 of 14

Report To	Contact and company name below will appear on the final report
Company:	Palmer Environmental Consulting Group
Contact:	Marissa Heppner
Phone:	604 703 9610 / marissa.heppner@pecg.ca
	Company address below will appear on the final report
Street:	470 Granville Street #630
City/Province:	Vancouver, BC
Postal Code:	V6C 1V5
Invoice To	Same as Report To ☐ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Ltd.
Contact:	Accounts Payable

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	marissa.heppner@pecg.ca
Email 2	ktanaka@artemisgoldinc.com
Email 3	lshelley@entiaenviro.com

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AFFIX ALS BARCODE LABEL HERE (ALS use only)

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Project Information	
ALS Account # / Quote #:	VA23-BWGL100-002
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Location:	

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ALS Contact: Amber Springer Sampler: Marissa Heppner

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

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	TL-01_gn_20230907_MW_1*	7-Sep-23		Frozen Fish	1	R	R	R			
	TL-01_gn_20230907_MW_2*	7-Sep-23		Frozen Fish	1	R	R	R			
	TL-01_gn_20230907_MW_3*	7-Sep-23		Frozen Fish	1	R	R	R			
	TL-01_gn_20230907_MW_4*	7-Sep-23		Frozen Fish	1	R	R	R			
	TL-01_gn_20230907_MW_5*	7-Sep-23		Frozen Fish	1	R	R	R			
	TL-01_gn_20230907_MW_6*	7-Sep-23		Frozen Fish	1	R	R	R			
	TL-01_gn_20230907_MW_7*	7-Sep-23		Frozen Fish	1	R	R	R			
	TL-01_gn_20230907_MW_8*	7-Sep-23		Frozen Fish	1	R	R	R			
	TL-01_gn_20230907_MW_9*	7-Sep-23		Frozen Fish	1	R	R	R			

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

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

* Sample must be dissected into liver, muscle, and remaining carcass and processed separately. Record liver weight for each sample. Arsenic speciation is required for muscle samples only.

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			

SHIPMENT RELEASE (client use)		
Released by: Marissa Heppner	Date: September 27 2023	Time:

INITIAL SHIPMENT RECEPTION (ALS use only)		
Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (ALS use only)		
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Canada Toll Free: 1 800 668 9878

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Email 2	ktanaka@artemisgoldinc.com
Email 3	lshelley@entiaenviro.com

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LSD:	

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	TL-01_ht_20230825_KO_1_2*	25-Aug-23	-	Frozen Fish	1	R	R	R			
	TL-01_ht_20230825_KO_1_3*	25-Aug-23	-	Frozen Fish	1	R	R	R			
	TL-01_ht_20230825_KO_1_4*	25-Aug-23	-	Frozen Fish	1	R	R	R			
	TL-01_ht_20230825_KO_1_5*	25-Aug-23	-	Frozen Fish	1	R	R	R			
	TL-01_ht_20230825_KO_1_6*	25-Aug-23	-	Frozen Fish	1	R	R	R			
	TL-01_ht_20230825_KO_1_7*	25-Aug-23	-	Frozen Fish	1	R	R	R			
	TL-01_ht_20230825_KO_1_8*	25-Aug-23	-	Frozen Fish	1	R	R	R			
	TL-01_ht_20230825_RB_1_9*	25-Aug-23	-	Frozen Fish	1	R	R	R			
	TL-01_ht_20230825_RB_1_10*	25-Aug-23	-	Frozen Fish	1	R	R	R			

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

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

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

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SAMPLE RECEIPT DETAILS (ALS use only)

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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			

SHIPMENT RELEASE (client use)		
Released by: Marissa Heppner	Date: September 27 2023	Time:

INITIAL SHIPMENT RECEPTION (ALS use only)		
Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (ALS use only)		
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Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Page 6 of 14

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	Palmer Environmental Consulting Group
Contact:	Marissa Heppner
Phone:	604 703 9610 / marissa.heppner@pecg.ca
	Company address below will appear on the final report
Street:	470 Granville Street #630
City/Province:	Vancouver, BC
Postal Code:	V6C 1V5
Invoice To	Same as Report To ☐ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Ltd.
Contact:	Accounts Payable

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: marissa.heppner@pecg.ca

Email 2: ktanaka@artemisgoldinc.com

Email 3: lshelley@entiaenviro.com

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: accounts@artemisgoldinc.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		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	VA23-BWGL100-002	AFE/Cost Center:	PO#
Job #:	2006506	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer Sampler: Marissa Heppn

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 incl. mercury	Arsenic speciation	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	661-01_ef_20230831_RB_1	31-Aug-23	-	Frozen Fish	1	R	R				
	661-01_ef_20230831_RB_2	31-Aug-23	-	Frozen Fish	1	R	R				
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	661-01_ef_20230831_RB_7	31-Aug-23	-	Frozen Fish	1	R	R				
	661-01_ef_20230831_RB_8	31-Aug-23	-	Frozen Fish	1	R	R				

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

Are samples taken from a Regulated DW System?

☐ YES ☑ NO

Are samples for human consumption/ use?

☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

* Sample must be dissected into liver, muscle, and remaining carcass and processed separately. Record liver weight for each sample. Arsenic speciation is required for muscle samples only.

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			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by: Marissa Heppner	Date: September 27 2023	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

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Postal Code:	V6C 1V5
Invoice To	Same as Report To ☐ YES ☐ NO
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Company:	Artemis Gold Ltd.
Contact:	Accounts Payable

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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	marissa.heppner@pecg.ca
Email 2	ktanaka@artemisgoldinc.com
Email 3	lshelley@entiaenviro.com
Invoice Recipients	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
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Job #:	2006506	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer Sampler: Marissa Heppn

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	FC-01_ef_20230831_RB_4	31-Aug-23	-	Frozen Fish	1	R	R				
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	FC-01_ef_20230831_RB_7	31-Aug-23	-	Frozen Fish	1	R	R				
	FC-01_ef_20230831_RB_8	31-Aug-23	-	Frozen Fish	1	R	R				

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

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

* Sample must be dissected into liver, muscle, and remaining carcass and processed separately. Record liver weight for each sample. Arsenic speciation is required for muscle samples only.

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			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by: Marissa Heppner	Date: September 27 2023	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:

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Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

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Canada Toll Free: 1 800 668 9878

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Contact:	Marissa Heppner
Phone:	604 703 9610 / marissa.heppner@pecg.ca
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City/Province:	Vancouver, BC
Postal Code:	V6C 1V5
Invoice To	Same as Report To ☐ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Ltd.
Contact:	Accounts Payable

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~~	~~marissa.heppner@pecg.ca~~
Email 2	ktanaka@artemisgoldinc.com
Email 3	lshelley@entiaenviro.com

Invoice Recipients	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
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ALS Account # / Quote #:	VA23-BWGL100-002
Job #:	2006506
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: Amber Springer **Sampler:** Marissa Heppn

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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

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Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)		
Released by: Marissa Heppner	Date: September 27 2023	Time:

INITIAL SHIPMENT RECEPTION (ALS use only)		
Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (ALS use only)		
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Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

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Canada Toll Free: 1 800 668 9878

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ALS Contact: Amber Springer Sampler: Marissa Heppner

Analysis Request

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 incl. mercury	Arsenic speciation	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
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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

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Released by: Marissa Heppner	Date: September 27 2023	Time:

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

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Are samples for human consumption/ use?

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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			

SHIPMENT RELEASE (client use)		
Released by: Marissa Heppner	Date: September 27 2023	Time:

INITIAL SHIPMENT RECEPTION (ALS use only)		
Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (ALS use only)		
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**.

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Page 11 of 14

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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:	Palmer Environmental Consulting Group
Contact:	Marissa Heppner
Phone:	604 703 9610 / marissa.heppner@pecg.ca
	Company address below will appear on the final report
Street:	470 Granville Street #630
City/Province:	Vancouver, BC
Postal Code:	V6C 1V5
Invoice To	Same as Report To ☐ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Ltd.
Contact:	Accounts Payable

Project Information	
ALS Account # / Quote #:	VA23-BWGL100-002
Job #:	2006506
PO / AFE:	
LSD:	

ALS Lab Work Order # (ALS use only):

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: marissa.heppner@pecg.ca

Email 2: ktanaka@artemisgoldinc.com

Email 3: lshelley@entiaenviro.com

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: accounts@artemisgoldinc.com

Email 2:

Oil and Gas Required Fields (client use)

AFE/Cost Center: PO#

Major/Minor Code: Routing Code:

Requisitioner:

Location:

ALS Contact: Amber Springer **Sampler:** Marissa Heppn

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.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

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

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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 incl. mercury	Arsenic speciation*	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes
	TC-10_ef_20230913_RB_1	13-Sep-23		Frozen Fish	1	R	R				
	TC-10_ef_20230913_RB_2	13-Sep-23		Frozen Fish	1	R	R				
	TC-10_ef_20230913_RB_3	13-Sep-23		Frozen Fish	1	R	R				
	TC-10_ef_20230913_RB_4	13-Sep-23		Frozen Fish	1	R	R				
	TC-10_ef_20230913_RB_5	13-Sep-23		Frozen Fish	1	R	R				
	TC-10_ef_20230913_RB_6	13-Sep-23		Frozen Fish	1	R	R				
	TC-10_ef_20230913_RB_7	13-Sep-23		Frozen Fish	1	R	R				
	TC-10_ef_20230913_RB_8	13-Sep-23		Frozen Fish	1	R	R				

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

Are samples taken from a Regulated DW System?

☐ YES ☑ NO

Are samples for human consumption/ use?

☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

* Sample must be dissected into liver, muscle, and remaining carcass and processed separately. Record liver weight for each sample. Arensic speciation is required for muscle samples only.

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			

SHIPMENT RELEASE (client use)		
Released by: Marissa Heppner	Date: September 27 2023	Time:

INITIAL SHIPMENT RECEPTION (ALS use only)		
Received by:	Date:	Time:

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

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Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

COC Number: 20 -

Page 12 of 14

Report To	Contact and company name below will appear on the final report
Company:	Palmer Environmental Consulting Group
Contact:	Marissa Heppner
Phone:	604 703 9610 / marissa.heppner@pecg.ca
	Company address below will appear on the final report
Street:	470 Granville Street #630
City/Province:	Vancouver, BC
Postal Code:	V6C 1V5
Invoice To	Same as Report To ☐ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Ltd.
Contact:	Accounts Payable

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	marissa.heppner@pecg.ca
Email 2	ktanaka@artemisgoldinc.com
Email 3	lshelley@entiaenviro.com

Invoice Recipients	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	accounts@artemisgoldinc.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
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☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
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AFFIX ALS BARCODE LABEL HERE (ALS use only)

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.

Project Information	
ALS Account # / Quote #:	VA23-BWGL100-002
Job #:	2006506
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: Amber Springer Sampler: Marissa Heppn

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 incl. mercury	Arsenic speciation	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes
	705-10_ef_20230915_RB_1	15-Sep-23		Frozen Fish	1	R	R				
	705-10_ef_20230915_RB_2	15-Sep-23		Frozen Fish	1	R	R				
	705-10_ef_20230915_RB_3	15-Sep-23		Frozen Fish	1	R	R				
	705-10_ef_20230915_RB_4	15-Sep-23		Frozen Fish	1	R	R				
	705-10_ef_20230915_RB_5	15-Sep-23		Frozen Fish	1	R	R				
	705-10_ef_20230915_RB_6	15-Sep-23		Frozen Fish	1	R	R				
	705-10_ef_20230915_RB_7	15-Sep-23		Frozen Fish	1	R	R				
	705-10_ef_20230915_RB_8	15-Sep-23		Frozen Fish	1	R	R				
	661-05_ef_20230914_RB_1	14-Sep-23		Frozen Fish	1	R	R				
	661-05_ef_20230914_RB_2	14-Sep-23		Frozen Fish	1	R	R				
	661-05_ef_20230914_RB_3	14-Sep-23		Frozen Fish	1	R	R				

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

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

* Sample must be dissected into liver, muscle, and remaining carcass and processed separately. Record liver weight for each sample. Arensic speciation is required for muscle samples only.

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			

SHIPMENT RELEASE (client use)		
Released by: Marissa Heppner	Date: September 27 2023	Time:

INITIAL SHIPMENT RECEPTION (ALS use only)		
Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (ALS use only)		
Received by:	Date:	Time:

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Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Page 13 of 14

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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:	Palmer Environmental Consulting Group
Contact:	Marissa Heppner
Phone:	604 703 9610 / marissa.heppner@pecg.ca
	Company address below will appear on the final report
Street:	470 Granville Street #630
City/Province:	Vancouver, BC
Postal Code:	V6C 1V5
Invoice To	Same as Report To ☐ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Ltd.
Contact:	Accounts Payable

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: marissa.heppner@pecg.ca

Email 2: ktanaka@artemisgoldinc.com

Email 3: lshelley@entiaenviro.com

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: accounts@artemisgoldinc.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

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Project Information

ALS Account # / Quote #:	VA23-BWGL100-002
Job #:	2006506
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: Amber Springer **Sampler:** Marissa Heppn

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 incl. mercury	Arsenic speciation										SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	ML-01-GN-20230921-RB-1	21-Sep-23		Frozen Fish	1	R	R	R												
	ML-01-GN-20230421-RB-2	21-Sep-23		Frozen Fish	1	R	R	R												
	ML-01-GN-20230922-MW-1	22-Sep-23		Frozen Fish	1	R	R	R												
	ML-01-GN-20230921-RB-6	21-Sep-23		Frozen Fish	1	R	R	R												
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	ML-01-GN-20230921-MW-7	21-Sep-23		Frozen Fish	1	R	R	R												
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	ML-01-GN-20230921-RB-3	21-Sep-23		Frozen Fish	1	R	R	R												
	ML-01-GN-20230921-MW-9	21-Sep-23		Frozen Fish	1	R	R	R												

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

Are samples taken from a Regulated DW System?

☐ YES ☑ NO

Are samples for human consumption/ use?

☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

* Sample must be dissected into liver, muscle, and remaining carcass and processed separately. Record liver weight for each sample. Arsenic speciation is required for muscle samples only.

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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			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by: Marissa Heppner	Date: September 27 2023	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY AUG 2020 FRONT

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COC Number: 20 -

Page 14 of 14

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Canada Toll Free: 1 800 668 9878

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City/Province:	Vancouver, BC
Postal Code:	V6C 1V5
Invoice To	Same as Report To ☐ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Ltd.
Contact:	Accounts Payable

Reports / Recipients

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Email 3: lshelley@entiaenviro.com

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Email 2:

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Job #: 2006506

PO / AFE:

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Oil and Gas Required Fields (client use)

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	ML-01_gn_20230921_MW-11 6	21-Sep-23		Frozen Fish	1	R	R	R			
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	ML-01_gn_20230922_MW-3 3	22-Sep-23		Frozen Fish	1	R	R	R			
	ML-01_gn_20230922_MW-4 4	22-Sep-23		Frozen Fish	1	R	R	R			
	ML-01_gn_20230922_MW-5 4	22-Sep-23		Frozen Fish	1	R	R	R			
				Frozen Fish	1	R	R	R			
				Frozen Fish	1	R	R	R			
				Frozen Fish	1	R	R	R			
				Frozen Fish	1	R	R	R			
				Frozen Fish	1	R	R	R			

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

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SAMPLE RECEIPT DETAILS (ALS use only)

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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			
				-4	-9		

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by: Marissa Heppner	Date: September 27 2023	Time:	Received by:	Date:	Time:	Received by: JC	Date: 26-Sep 23	Time: 1150hr

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 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.

Coi pages 1 to 14

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C2951**	Page	: 1 of 95
Client	: **Palmer Environmental Consulting Group Inc.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Accounts Payable	Account Manager	: Amber Springer
Address	: 470 Granville Street Suite 630 Vancouver BC Canada V6C 1V5	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: 604 629 9075	Telephone	: +1 604 253 4188
Project	: 2006506	Date Samples Received	: 26-Sep-2023 11:50
PO	: 15180	Date Analysis Commenced	: 10-Nov-2023
C-O-C number	: ----	Issue Date	: 27-Nov-2023 08:19
Sampler	: Marissa Heppner		
Site	: ----		
Quote number	: VA23-BWGL100-002		
No. of samples received	: 108		
No. of samples analysed	: 102		

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*
Alex Thornton	Analyst	Metals, Burnaby, British Columbia
Arshdeep Kaur	Lab Assistant	Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Owen Cheng		Metals, Burnaby, British Columbia
Ragini Saini	Lab Assistant	Metals, Burnaby, British Columbia
Robert Nguyen	Analsyt	Metals, Burnaby, British Columbia
Robin Weeks	Team Leader - Metals	Metals, Burnaby, British Columbia
Russell Zhang		Metals, Burnaby, British Columbia
Sam Silveira	Lab Assistant	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*
%	percent
mg/kg	milligrams per kilogram
mg/kg wwt	milligrams per kilogram wet weight

<: 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: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-10_ef_20230901_RB_1	661-10_ef_20230901_RB_2	661-10_ef_20230901_RB_3	661-10_ef_20230901_RB_4	661-10_ef_20230901_RB_5
					Client sampling date / time	01-Sep-2023 00:00	01-Sep-2023 00:00	01-Sep-2023 00:00	01-Sep-2023 00:00	01-Sep-2023 00:00
						VA23C2951-001	VA23C2951-002	VA23C2951-003	VA23C2951-004	VA23C2951-005
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		76.1	73.1	----	----	----
Moisture	----	E144-H/VA	2.0	%		----	----	68.5	70.8	70.8
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		33.3	20.3	----	----	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	12.1	168	28.7
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		7.96	5.46	----	----	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	3.8	48.9	8.4
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	<0.010	0.015	<0.010
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	----	----	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	0.0044	<0.0020
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	----	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.165	0.196	----	----	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	0.116	0.329	0.178
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0395	0.0528	----	----	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	0.0365	0.0959	0.0519
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	1.38	3.34	1.62
Barium	7440-39-3	E440/VA	0.050	mg/kg		4.07	1.78	----	----	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	0.435	0.976	0.471
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		0.974	0.478	----	----	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	<0.010	<0.010	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	----	----	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	<0.0020	<0.0020
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	----	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	----	----	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	<0.0020	<0.0020
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	----	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	<1.0	<1.0	<1.0
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	<1.0	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-10_ef_20230901_RB_1	661-10_ef_20230901_RB_2	661-10_ef_20230901_RB_3	661-10_ef_20230901_RB_4	661-10_ef_20230901_RB_5
					Client sampling date / time	01-Sep-2023 00:00	01-Sep-2023 00:00	01-Sep-2023 00:00	01-Sep-2023 00:00	01-Sep-2023 00:00
						VA23C2951-001	VA23C2951-002	VA23C2951-003	VA23C2951-004	VA23C2951-005
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	<0.20	<0.20	<0.20
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	<0.20	----	----	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.134	0.183	----	----	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	0.090	0.319	0.155
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0320	0.0493	----	----	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	0.0285	0.0930	0.0452
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	21000	22000	20000
Calcium	7440-70-2	E440/VA	20	mg/kg		38800	25200	----	----	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	6640	6420	5830
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		9270	6790	----	----	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	0.0990	0.106	0.0666
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.108	0.119	----	----	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	0.0312	0.0309	0.0194
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0260	0.0319	----	----	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.430	0.189	----	----	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	<0.20	0.94	<0.20
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.103	0.051	----	----	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	0.273	0.051
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	0.050	0.156	0.103
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.066	0.086	----	----	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	0.0157	0.0455	0.0301
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0157	0.0233	----	----	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		2.33	3.73	----	----	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	2.93	4.03	3.20
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.557	1.00	----	----	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	0.924	1.17	0.935
Iron	7439-89-6	E440/VA	3.0	mg/kg		96.5	78.8	----	----	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	56.5	243	90.4
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		23.1	21.2	----	----	----
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	17.8	71.0	26.4

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-10_ef_20230901_RB_1	661-10_ef_20230901_RB_2	661-10_ef_20230901_RB_3	661-10_ef_20230901_RB_4	661-10_ef_20230901_RB_5
					Client sampling date / time	01-Sep-2023 00:00	01-Sep-2023 00:00	01-Sep-2023 00:00	01-Sep-2023 00:00	01-Sep-2023 00:00
						VA23C2951-001	VA23C2951-002	VA23C2951-003	VA23C2951-004	VA23C2951-005
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.042	0.024	----	----	----
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	<0.050	0.176	<0.050
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0100	0.0064	----	----	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	<0.010	0.051	<0.010
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	<0.50	<0.50	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	----	----	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	<0.10	<0.10	<0.10
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	----	----	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	1220	1350	1220
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1540	1310	----	----	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	385	394	356
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		368	352	----	----	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	11.3	31.2	13.2
Manganese	7439-96-5	E440/VA	0.050	mg/kg		22.9	12.2	----	----	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	3.57	9.09	3.84
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		5.48	3.28	----	----	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	0.223	0.169	0.170
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.335	0.285	----	----	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	0.0703	0.0493	0.0498
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0802	0.0768	----	----	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.085	0.061	----	----	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	0.061	0.137	0.075
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0202	0.0165	----	----	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	0.0192	0.0398	0.0220
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	<0.20	0.37	<0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	----	----	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	0.107	<0.040
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	----	----
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	20700	21400	19600
Phosphorus	7723-14-0	E440/VA	10	mg/kg		30900	23200	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-10_ef_20230901_RB_1	661-10_ef_20230901_RB_2	661-10_ef_20230901_RB_3	661-10_ef_20230901_RB_4	661-10_ef_20230901_RB_5
					Client sampling date / time	01-Sep-2023 00:00	01-Sep-2023 00:00	01-Sep-2023 00:00	01-Sep-2023 00:00	01-Sep-2023 00:00
						VA23C2951-001	VA23C2951-002	VA23C2951-003	VA23C2951-004	VA23C2951-005
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	6520	6240	5710
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		7390	6250	----	----	----
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	10700	11700	10700
Potassium	7440-09-7	E440/VA	20	mg/kg		14200	12200	----	----	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	3370	3420	3130
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3400	3290	----	----	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	11.8	13.4	11.5
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		11.1	12.6	----	----	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	3.73	3.91	3.35
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		2.66	3.39	----	----	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		1.28	1.15	----	----	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	1.00	1.18	1.13
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.307	0.309	----	----	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	0.314	0.344	0.331
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	2760	3010	2390
Sodium	7440-23-5	E440/VA	20	mg/kg		4610	3130	----	----	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	872	878	698
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		1100	842	----	----	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		46.4	28.9	----	----	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	24.0	28.3	25.1
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		11.1	7.77	----	----	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	7.58	8.25	7.32
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	<0.020	<0.020	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	----	----	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	<0.0040	<0.0040	<0.0040
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	----	----	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	0.0142	0.0208	0.0124
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0248	0.0137	----	----	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	----	0.00447	0.00606	0.00361
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00593	0.00369	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-10_ef_20230901_RB_1	661-10_ef_20230901_RB_2	661-10_ef_20230901_RB_3	661-10_ef_20230901_RB_4	661-10_ef_20230901_RB_5
					Client sampling date / time	01-Sep-2023 00:00	01-Sep-2023 00:00	01-Sep-2023 00:00	01-Sep-2023 00:00	01-Sep-2023 00:00
						VA23C2951-001	VA23C2951-002	VA23C2951-003	VA23C2951-004	VA23C2951-005
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	0.31	0.34	0.43
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.98	0.48	----	----	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	0.097	0.098	0.126
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.235	0.130	----	----	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	0.0135	0.0617	0.0148
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0430	0.0196	----	----	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	0.00426	0.0180	0.00432
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.0103	0.00528	----	----	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	0.13	0.59	0.17
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		0.42	0.18	----	----	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	0.041	0.171	0.049
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.101	0.048	----	----	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		152	121	----	----	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	93.0	125	121
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		36.4	32.5	----	----	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	29.3	36.3	35.4
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	----	----	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	0.054	<0.040
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	----	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-10_ef_20230901_RB_6	661-10_ef_20230901_RB_7	661-10_ef_20230901_RB_8	661-04_ef_20230909_RB_1	661-04_ef_20230909_RB_2
					Client sampling date / time	01-Sep-2023 00:00	01-Sep-2023 00:00	01-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2951-006	VA23C2951-007	VA23C2951-008	VA23C2951-009	VA23C2951-010
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		----	----	----	72.6	73.7
Moisture	----	E144-H/VA	2.0	%		70.1	67.9	71.3	----	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		----	----	----	35.8	9.2
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		55.9	57.6	57.4	----	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		----	----	----	9.78	2.40
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		16.7	18.5	16.5	----	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		<0.010	<0.010	<0.010	----	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		----	----	----	<0.010	<0.010
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		<0.0020	0.0023	<0.0020	----	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		----	----	----	0.0024	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		----	----	----	0.152	0.156
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		0.267	0.258	0.241	----	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		----	----	----	0.0415	0.0411
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		0.0800	0.0827	0.0692	----	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		2.00	2.11	1.98	----	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		----	----	----	1.55	0.839
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		0.597	0.679	0.568	----	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		----	----	----	0.423	0.220
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		<0.010	<0.010	<0.010	----	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		----	----	----	<0.010	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	----	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		----	----	----	<0.0020	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		<0.010	<0.010	<0.010	----	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		----	----	----	<0.010	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	----	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		----	----	----	<0.0020	<0.0020
Boron	7440-42-8	E472/VA	1.0	mg/kg		<1.0	<1.0	<1.0	----	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		----	----	----	<1.0	<1.0
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		<0.20	<0.20	<0.20	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-10_ef_202 30901_RB_6	661-10_ef_202 30901_RB_7	661-10_ef_202 30901_RB_8	661-04_ef_202 30909_RB_1	661-04_ef_202 30909_RB_2
					Client sampling date / time	01-Sep-2023 00:00	01-Sep-2023 00:00	01-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2951-006	VA23C2951-007	VA23C2951-008	VA23C2951-009	VA23C2951-010
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		----	----	----	<0.20	<0.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		----	----	----	0.122	0.171
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		0.189	0.221	0.139	----	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		----	----	----	0.0335	0.0448
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		0.0564	0.0710	0.0400	----	----
Calcium	7440-70-2	E472/VA	20	mg/kg		27700	20800	19800	----	----
Calcium	7440-70-2	E440/VA	20	mg/kg		----	----	----	16800	19600
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		8270	6680	5680	----	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		----	----	----	4610	5140
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		0.0645	0.0503	0.0757	----	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		----	----	----	0.172	0.207
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		0.0193	0.0162	0.0217	----	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		----	----	----	0.0470	0.0543
Chromium	7440-47-3	E440/VA	0.050	mg/kg		----	----	----	0.178	0.143
Chromium	7440-47-3	E472/VA	0.20	mg/kg		0.34	0.23	<0.20	----	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		----	----	----	0.049	0.038
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		0.103	0.075	0.057	----	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		0.124	0.123	0.130	----	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		----	----	----	0.049	0.046
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		0.0372	0.0396	0.0375	----	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		----	----	----	0.0133	0.0122
Copper	7440-50-8	E440/VA	0.10	mg/kg		----	----	----	3.86	3.05
Copper	7440-50-8	E472/VA	0.20	mg/kg		3.07	4.33	3.83	----	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		----	----	----	1.05	0.801
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		0.919	1.39	1.10	----	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		----	----	----	74.7	49.1
Iron	7439-89-6	E472/VA	5.0	mg/kg		115	136	118	----	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		----	----	----	20.4	12.9
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		34.4	43.7	33.8	----	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		----	----	----	0.042	<0.020

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-10_ef_20230901_RB_6	661-10_ef_20230901_RB_7	661-10_ef_20230901_RB_8	661-04_ef_20230909_RB_1	661-04_ef_20230909_RB_2
					Client sampling date / time	01-Sep-2023 00:00	01-Sep-2023 00:00	01-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2951-006	VA23C2951-007	VA23C2951-008	VA23C2951-009	VA23C2951-010
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		0.052	<0.050	<0.050	----	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		----	----	----	0.0116	0.0044
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		0.016	0.013	0.012	----	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		<0.50	<0.50	<0.50	----	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		----	----	----	<0.50	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	----	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		----	----	----	<0.10	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		1290	1160	1160	----	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		----	----	----	1080	1160
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		385	374	334	----	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		----	----	----	295	304
Manganese	7439-96-5	E472/VA	0.050	mg/kg		17.6	20.6	26.2	----	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		----	----	----	5.91	4.61
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		5.27	6.63	7.52	----	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		----	----	----	1.62	1.21
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		0.215	0.238	0.197	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		----	----	----	0.151	0.210
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		0.0643	0.0764	0.0566	----	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		----	----	----	0.0413	0.0552
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		----	----	----	0.045	0.047
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		0.081	0.112	0.098	----	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		----	----	----	0.0124	0.0123
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		0.0241	0.0358	0.0283	----	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		<0.20	<0.20	<0.20	----	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		----	----	----	<0.20	<0.20
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	----	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		----	----	----	<0.040	<0.040
Phosphorus	7723-14-0	E472/VA	10	mg/kg		23600	19200	19100	----	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		----	----	----	19800	19200
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		7070	6170	5490	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-10_ef_20230901_RB_6	661-10_ef_20230901_RB_7	661-10_ef_20230901_RB_8	661-04_ef_20230909_RB_1	661-04_ef_20230909_RB_2
					Client sampling date / time	01-Sep-2023 00:00	01-Sep-2023 00:00	01-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2951-006	VA23C2951-007	VA23C2951-008	VA23C2951-009	VA23C2951-010
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		----	----	----	5420	5050
Potassium	7440-09-7	E472/VA	20	mg/kg		11500	9790	11000	----	----
Potassium	7440-09-7	E440/VA	20	mg/kg		----	----	----	12800	12200
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		3430	3140	3160	----	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		----	----	----	3500	3200
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		10.2	12.2	11.2	----	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		----	----	----	14.9	15.7
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		3.05	3.91	3.22	----	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		----	----	----	4.07	4.12
Selenium	7782-49-2	E440/VA	0.050	mg/kg		----	----	----	1.34	1.94
Selenium	7782-49-2	E472/VA	0.10	mg/kg		1.11	1.18	1.34	----	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		----	----	----	0.368	0.509
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		0.331	0.380	0.384	----	----
Sodium	7440-23-5	E472/VA	20	mg/kg		2640	2530	2590	----	----
Sodium	7440-23-5	E440/VA	20	mg/kg		----	----	----	2870	2970
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		788	813	744	----	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		----	----	----	786	780
Strontium	7440-24-6	E440/VA	0.050	mg/kg		----	----	----	21.1	22.6
Strontium	7440-24-6	E472/VA	0.10	mg/kg		33.8	24.4	22.6	----	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		----	----	----	5.77	5.94
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		10.1	7.85	6.48	----	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		<0.020	<0.020	<0.020	----	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		----	----	----	<0.020	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	----	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		----	----	----	<0.0040	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		0.0173	0.0240	0.0215	----	----
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		----	----	----	0.0133	0.0140
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		0.00516	0.00772	0.00618	----	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		----	----	----	0.00364	0.00368
Tin	7440-31-5	E472/VA	0.10	mg/kg		0.26	0.22	0.19	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-10_ef_202 30901_RB_6	661-10_ef_202 30901_RB_7	661-10_ef_202 30901_RB_8	661-04_ef_202 30909_RB_1	661-04_ef_202 30909_RB_2
					Client sampling date / time	01-Sep-2023 00:00	01-Sep-2023 00:00	01-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2951-006	VA23C2951-007	VA23C2951-008	VA23C2951-009	VA23C2951-010
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		----	----	----	0.27	0.21
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		0.079	0.072	0.054	----	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		----	----	----	0.074	0.056
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		0.0287	0.0353	0.0414	----	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		----	----	----	0.0214	0.0163
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		0.00859	0.0113	0.0119	----	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		----	----	----	0.00584	0.00428
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		0.31	0.28	0.34	----	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		----	----	----	0.11	<0.10
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		0.093	0.092	0.097	----	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		----	----	----	0.031	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg		----	----	----	86.3	99.9
Zinc	7440-66-6	E472/VA	1.0	mg/kg		113	120	90.6	----	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		----	----	----	23.6	26.2
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		33.7	38.4	26.0	----	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		<0.20	<0.20	<0.20	----	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		----	----	----	<0.20	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	----	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		----	----	----	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-04_ef_20230909_RB_3	661-04_ef_20230909_RB_4	661-04_ef_20230909_RB_5	661-04_ef_20230909_RB_6	661-04_ef_20230909_RB_7
					Client sampling date / time	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2951-011	VA23C2951-012	VA23C2951-013	VA23C2951-014	VA23C2951-015
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		71.9	74.1	73.8	73.1	70.0
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		3.9	73.0	64.2	121	12.0
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		1.10	18.9	16.8	32.5	3.61
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	0.015	<0.010	0.017	<0.010
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	0.0040	0.0024	0.0046	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.118	0.221	0.141	0.300	0.100
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0331	0.0571	0.0368	0.0808	0.0298
Barium	7440-39-3	E440/VA	0.050	mg/kg		0.947	1.77	1.38	1.34	1.11
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		0.266	0.457	0.362	0.361	0.332
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	<1.0	<1.0	<1.0	<1.0
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.105	0.116	0.148	0.232	0.122
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0296	0.0300	0.0388	0.0624	0.0367
Calcium	7440-70-2	E440/VA	20	mg/kg		19400	19200	16400	17900	19300
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		5460	4970	4300	4820	5780
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.144	0.188	0.160	0.386	0.205
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0404	0.0486	0.0419	0.104	0.0616
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.092	0.226	0.171	0.303	0.179
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.026	0.058	0.045	0.082	0.054
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.045	0.051	0.057	0.093	0.023
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0127	0.0133	0.0148	0.0249	0.0069
Copper	7440-50-8	E440/VA	0.10	mg/kg		2.52	2.42	2.78	3.40	2.81
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.708	0.626	0.727	0.915	0.842
Iron	7439-89-6	E440/VA	3.0	mg/kg		45.0	110	109	175	52.4
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		12.6	28.5	28.6	47.1	15.7

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-04_ef_20230909_RB_3	661-04_ef_20230909_RB_4	661-04_ef_20230909_RB_5	661-04_ef_20230909_RB_6	661-04_ef_20230909_RB_7
					Client sampling date / time	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2951-011	VA23C2951-012	VA23C2951-013	VA23C2951-014	VA23C2951-015
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	0.067	0.047	0.106	<0.020
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0175	0.0122	0.0286	0.0059
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1100	1160	1140	1220	1180
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		310	300	298	329	353
Manganese	7439-96-5	E440/VA	0.050	mg/kg		5.43	9.86	8.50	12.6	6.16
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		1.52	2.55	2.22	3.40	1.85
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.151	0.150	0.179	0.221	0.148
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0423	0.0388	0.0469	0.0594	0.0443
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.033	0.045	0.053	0.067	0.042
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0094	0.0117	0.0139	0.0180	0.0127
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	<0.040	<0.040
Phosphorus	7723-14-0	E440/VA	10	mg/kg		19300	20100	19500	19800	20200
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		5420	5200	5110	5330	6050
Potassium	7440-09-7	E440/VA	20	mg/kg		11800	13500	13100	14000	11800
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3310	3500	3440	3770	3550
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		13.5	15.9	16.2	19.4	15.0
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		3.79	4.12	4.23	5.22	4.51
Selenium	7782-49-2	E440/VA	0.050	mg/kg		1.62	1.50	1.75	2.10	1.29
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.454	0.387	0.459	0.565	0.388
Sodium	7440-23-5	E440/VA	20	mg/kg		2410	3200	3030	2850	2630
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		675	828	792	768	790
Strontium	7440-24-6	E440/VA	0.050	mg/kg		23.1	23.6	20.1	20.9	22.8
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		6.48	6.11	5.26	5.62	6.85
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	<0.020
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0102	0.0105	0.0155	0.0143	0.0098
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00288	0.00271	0.00407	0.00385	0.00295

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-04_ef_20230909_RB_3	661-04_ef_20230909_RB_4	661-04_ef_20230909_RB_5	661-04_ef_20230909_RB_6	661-04_ef_20230909_RB_7
					Client sampling date / time	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00	09-Sep-2023 00:00
						VA23C2951-011	VA23C2951-012	VA23C2951-013	VA23C2951-014	VA23C2951-015
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.30	0.29	0.31	0.36	0.27
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.085	0.076	0.082	0.097	0.080
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0104	0.0409	0.0310	0.0581	0.0093
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.00292	0.0106	0.00810	0.0156	0.00278
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	0.18	0.18	0.31	<0.10
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	0.048	0.048	0.083	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg		71.6	123	109	106	90.2
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		20.1	31.9	28.5	28.4	27.1
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	0.050	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-04_ef_202 30909_RB_8	705-05_ef_202 30910_RB_1	705-05_ef_202 30910_RB_2	705-05_ef_202 30910_RB_3	705-05_ef_202 30910_RB_4
					Client sampling date / time	09-Sep-2023 00:00	10-Sep-2023 00:00	10-Sep-2023 00:00	10-Sep-2023 00:00	10-Sep-2023 00:00
						VA23C2951-016	VA23C2951-017	VA23C2951-018	VA23C2951-019	VA23C2951-020
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		71.7	73.5	74.9	74.1	74.9
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		13.5	10.5	7.0	18.8	6.7
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		3.82	2.78	1.75	4.88	1.69
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.088	0.107	0.079	0.118	0.062
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0249	0.0283	0.0197	0.0305	0.0156
Barium	7440-39-3	E440/VA	0.050	mg/kg		1.65	4.08	3.47	3.02	3.18
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		0.467	1.08	0.869	0.782	0.799
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	1.0	<1.0	1.2	<1.0
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	0.28	0.25	0.31	0.22
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.116	0.0373	0.0646	0.0298	0.0473
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0327	0.0099	0.0162	0.0077	0.0119
Calcium	7440-70-2	E440/VA	20	mg/kg		22800	17300	31700	21500	18500
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		6450	4580	7950	5580	4660
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.210	0.304	0.720	0.365	0.480
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0594	0.0804	0.180	0.0945	0.120
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.135	0.127	0.099	0.059	<0.050
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.038	0.034	0.025	0.015	<0.010
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.026	0.088	0.068	0.104	0.025
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0074	0.0233	0.0171	0.0268	0.0063
Copper	7440-50-8	E440/VA	0.10	mg/kg		3.83	3.49	3.82	3.32	4.13
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		1.08	0.923	0.958	0.859	1.04
Iron	7439-89-6	E440/VA	3.0	mg/kg		60.0	70.3	67.7	78.9	72.2
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		17.0	18.6	17.0	20.4	18.1

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-04_ef_202 30909_RB_8	705-05_ef_202 30910_RB_1	705-05_ef_202 30910_RB_2	705-05_ef_202 30910_RB_3	705-05_ef_202 30910_RB_4
					Client sampling date / time	09-Sep-2023 00:00	10-Sep-2023 00:00	10-Sep-2023 00:00	10-Sep-2023 00:00	10-Sep-2023 00:00
						VA23C2951-016	VA23C2951-017	VA23C2951-018	VA23C2951-019	VA23C2951-020
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	<0.020
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0041	<0.0040	<0.0040	<0.0040	<0.0040
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1170	1150	1490	1310	1100
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		330	304	373	340	276
Manganese	7439-96-5	E440/VA	0.050	mg/kg		8.60	12.3	19.6	18.1	12.9
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		2.44	3.25	4.92	4.70	3.24
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.142	0.191	0.317	0.226	0.286
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0403	0.0507	0.0794	0.0586	0.0717
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.045	0.111	0.069	0.070	0.074
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0128	0.0293	0.0174	0.0182	0.0186
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	<0.040	<0.040
Phosphorus	7723-14-0	E440/VA	10	mg/kg		23500	18900	28400	21700	18800
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		6660	5000	7110	5630	4720
Potassium	7440-09-7	E440/VA	20	mg/kg		12100	13500	14500	13200	13900
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3430	3570	3630	3410	3480
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		15.0	20.4	21.4	23.1	18.9
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		4.25	5.40	5.36	5.98	4.74
Selenium	7782-49-2	E440/VA	0.050	mg/kg		1.32	0.536	0.617	0.606	0.564
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.373	0.142	0.155	0.157	0.142
Sodium	7440-23-5	E440/VA	20	mg/kg		2860	2960	3550	3210	3080
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		810	784	890	832	773
Strontium	7440-24-6	E440/VA	0.050	mg/kg		27.3	25.0	40.2	30.2	25.9
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		7.74	6.62	10.1	7.82	6.50
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	<0.020
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0122	0.0121	0.0222	0.0192	0.0108
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00345	0.00321	0.00555	0.00497	0.00270

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-04_ef_202 30909_RB_8	705-05_ef_202 30910_RB_1	705-05_ef_202 30910_RB_2	705-05_ef_202 30910_RB_3	705-05_ef_202 30910_RB_4
					Client sampling date / time	09-Sep-2023 00:00	10-Sep-2023 00:00	10-Sep-2023 00:00	10-Sep-2023 00:00	10-Sep-2023 00:00
						VA23C2951-016	VA23C2951-017	VA23C2951-018	VA23C2951-019	VA23C2951-020
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.20	0.32	0.52	0.44	0.22
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.056	0.084	0.130	0.114	0.054
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0162	0.0116	0.0307	0.0200	0.0125
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.00458	0.00306	0.00770	0.00519	0.00314
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	<0.10	0.12	<0.10	<0.10
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.021	<0.020	0.030	0.024	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg		97.3	87.5	125	89.7	112
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		27.6	23.2	31.2	23.2	28.1
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: 705-05_ef_20230910_RB_5	705-05_ef_20230910_RB_6	705-05_ef_20230910_RB_7	705-05_ef_20230910_RB_8	TC-10_ef_20230913_RB_1
					Client sampling date / time: 10-Sep-2023 00:00	10-Sep-2023 00:00	10-Sep-2023 00:00	10-Sep-2023 00:00	13-Sep-2023 00:00
					VA23C2951-021	VA23C2951-022	VA23C2951-023	VA23C2951-024	VA23C2951-025
					Result	Result	Result	Result	Result
Physical Tests									
Moisture	----	E144/VA	0.50	%	72.5	73.5	73.7	70.5	72.8
Metals									
Aluminum	7429-90-5	E440/VA	2.0	mg/kg	6.7	24.2	12.6	49.4	24.8
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt	1.85	6.40	3.30	14.6	6.73
Antimony	7440-36-0	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg	0.106	0.134	0.132	0.165	0.328
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt	0.0291	0.0354	0.0347	0.0488	0.0892
Barium	7440-39-3	E440/VA	0.050	mg/kg	2.46	2.32	2.70	3.12	2.68
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt	0.675	0.613	0.710	0.919	0.728
Beryllium	7440-41-7	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth	7440-69-9	E440/VA	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron	7440-42-8	E440/VA	1.0	mg/kg	<1.0	<1.0	1.5	1.8	<1.0
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt	0.24	0.24	0.40	0.52	0.21
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg	0.0422	0.0726	0.0442	0.0639	0.0179
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt	0.0116	0.0192	0.0116	0.0188	0.0049
Calcium	7440-70-2	E440/VA	20	mg/kg	27400	23300	22200	20300	16100
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt	7530	6170	5850	5980	4390
Cesium	7440-46-2	E440/VA	0.0050	mg/kg	0.460	0.506	0.282	0.355	0.0162
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt	0.126	0.134	0.0740	0.105	0.0044
Chromium	7440-47-3	E440/VA	0.050	mg/kg	<0.050	0.113	<0.050	0.085	0.081
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt	<0.010	0.030	<0.010	0.025	0.022
Cobalt	7440-48-4	E440/VA	0.020	mg/kg	0.043	0.140	0.059	0.187	0.083
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt	0.0118	0.0371	0.0155	0.0552	0.0226
Copper	7440-50-8	E440/VA	0.10	mg/kg	3.47	2.94	4.20	2.55	3.98
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt	0.955	0.779	1.10	0.752	1.08
Iron	7439-89-6	E440/VA	3.0	mg/kg	64.0	92.8	74.5	119	370
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt	17.6	24.6	19.6	35.1	101

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	705-05_ef_20230910_RB_5	705-05_ef_20230910_RB_6	705-05_ef_20230910_RB_7	705-05_ef_20230910_RB_8	TC-10_ef_20230913_RB_1
					Client sampling date / time	10-Sep-2023 00:00	10-Sep-2023 00:00	10-Sep-2023 00:00	10-Sep-2023 00:00	13-Sep-2023 00:00
						VA23C2951-021	VA23C2951-022	VA23C2951-023	VA23C2951-024	VA23C2951-025
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	<0.020
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	0.0042	<0.0040
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1330	1240	1250	1180	1090
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		366	328	329	349	298
Manganese	7439-96-5	E440/VA	0.050	mg/kg		15.7	22.4	15.1	18.2	59.1
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		4.32	5.92	3.98	5.37	16.1
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.273	0.328	0.171	0.246	0.524
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0749	0.0869	0.0449	0.0725	0.143
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.057	0.093	0.098	0.073	0.197
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0156	0.0247	0.0258	0.0215	0.0536
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	0.26	<0.20
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	0.078	<0.040
Phosphorus	7723-14-0	E440/VA	10	mg/kg		25100	22600	22800	20000	17400
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		6910	5980	5990	5910	4720
Potassium	7440-09-7	E440/VA	20	mg/kg		13400	13000	14000	11800	12000
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3680	3450	3670	3480	3280
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		22.6	24.4	20.8	21.6	5.17
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		6.20	6.45	5.48	6.37	1.41
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.657	0.741	0.552	0.641	1.86
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.180	0.196	0.145	0.189	0.506
Sodium	7440-23-5	E440/VA	20	mg/kg		3180	3330	3330	2940	3320
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		875	881	876	869	902
Strontium	7440-24-6	E440/VA	0.050	mg/kg		35.4	30.7	31.1	27.2	13.4
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		9.73	8.12	8.18	8.03	3.64
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	<0.020
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0155	0.0178	0.0141	0.0146	0.0061
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00426	0.00472	0.00370	0.00432	0.00167

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	705-05_ef_20230910_RB_5	705-05_ef_20230910_RB_6	705-05_ef_20230910_RB_7	705-05_ef_20230910_RB_8	TC-10_ef_20230913_RB_1
					Client sampling date / time	10-Sep-2023 00:00	10-Sep-2023 00:00	10-Sep-2023 00:00	10-Sep-2023 00:00	13-Sep-2023 00:00
						VA23C2951-021	VA23C2951-022	VA23C2951-023	VA23C2951-024	VA23C2951-025
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.29	0.48	0.26	0.37	0.38
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.079	0.128	0.068	0.108	0.105
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0170	0.0273	0.0134	0.0174	0.0090
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.00468	0.00724	0.00351	0.00514	0.00246
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	0.11	<0.10	0.16	0.17
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	0.029	<0.020	0.048	0.047
Zinc	7440-66-6	E440/VA	0.50	mg/kg		109	99.6	104	80.3	119
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		29.9	26.4	27.4	23.7	32.4
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TC-10_ef_2023 0913_RB_2	TC-10_ef_2023 0913_RB_3	TC-10_ef_2023 0913_RB_4	TC-10_ef_2023 0913_RB_5	TC-10_ef_2023 0913_RB_6
					Client sampling date / time	13-Sep-2023 00:00	13-Sep-2023 00:00	13-Sep-2023 00:00	13-Sep-2023 00:00	13-Sep-2023 00:00
						VA23C2951-026	VA23C2951-027	VA23C2951-028	VA23C2951-029	VA23C2951-030
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		73.1	74.7	72.2	72.9	74.3
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		53.7	4.5	24.0	33.9	12.9
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		14.4	1.13	6.66	9.18	3.32
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	0.0025	0.0020	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.268	0.220	0.273	0.246	0.185
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0721	0.0557	0.0759	0.0666	0.0476
Barium	7440-39-3	E440/VA	0.050	mg/kg		4.85	2.77	6.98	4.57	3.09
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		1.30	0.701	1.94	1.24	0.794
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron	7440-42-8	E440/VA	1.0	mg/kg		1.0	1.2	2.8	<1.0	1.3
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		0.28	0.30	0.77	0.27	0.33
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0607	0.0237	0.0374	0.0288	0.0323
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0163	0.0060	0.0104	0.0078	0.0083
Calcium	7440-70-2	E440/VA	20	mg/kg		29100	27500	29100	25600	34200
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		7830	6970	8090	6920	8790
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0311	0.0289	0.0214	0.0245	0.0243
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0084	0.0073	0.0060	0.0066	0.0062
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.107	<0.050	0.127	0.104	<0.050
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.029	<0.010	0.035	0.028	0.012
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.095	0.040	0.115	0.075	0.044
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0256	0.0103	0.0320	0.0203	0.0112
Copper	7440-50-8	E440/VA	0.10	mg/kg		4.43	4.14	3.97	3.93	3.20
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		1.19	1.05	1.10	1.06	0.824
Iron	7439-89-6	E440/VA	3.0	mg/kg		197	76.8	159	172	103
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		53.0	19.5	44.1	46.4	26.5

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TC-10_ef_2023 0913_RB_2	TC-10_ef_2023 0913_RB_3	TC-10_ef_2023 0913_RB_4	TC-10_ef_2023 0913_RB_5	TC-10_ef_2023 0913_RB_6
					Client sampling date / time	13-Sep-2023 00:00	13-Sep-2023 00:00	13-Sep-2023 00:00	13-Sep-2023 00:00	13-Sep-2023 00:00
						VA23C2951-026	VA23C2951-027	VA23C2951-028	VA23C2951-029	VA23C2951-030
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	0.024	<0.020
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0042	<0.0040	<0.0040	0.0065	<0.0040
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1380	1310	1410	1370	1590
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		372	332	391	370	409
Manganese	7439-96-5	E440/VA	0.050	mg/kg		86.2	39.8	173	84.2	51.6
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		23.2	10.1	48.0	22.8	13.3
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.605	0.624	0.375	0.612	0.537
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.163	0.158	0.104	0.166	0.138
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.114	0.064	0.130	0.090	0.080
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0308	0.0164	0.0362	0.0243	0.0205
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	0.048	<0.040	<0.040
Phosphorus	7723-14-0	E440/VA	10	mg/kg		26600	26100	25200	23500	29200
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		7140	6600	7000	6370	7520
Potassium	7440-09-7	E440/VA	20	mg/kg		12600	13200	12000	12200	12700
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3380	3340	3330	3300	3260
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		7.09	8.02	6.30	7.60	8.70
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		1.91	2.03	1.75	2.06	2.24
Selenium	7782-49-2	E440/VA	0.050	mg/kg		1.56	1.64	1.58	1.54	1.52
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.419	0.416	0.439	0.417	0.392
Sodium	7440-23-5	E440/VA	20	mg/kg		3430	3920	3470	3400	3900
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		922	994	962	921	1000
Strontium	7440-24-6	E440/VA	0.050	mg/kg		26.4	25.2	26.3	23.8	29.1
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		7.09	6.39	7.30	6.44	7.48
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	<0.020
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0095	0.0086	0.0071	0.0083	0.0084
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00256	0.00218	0.00197	0.00226	0.00215

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TC-10_ef_20230913_RB_2	TC-10_ef_20230913_RB_3	TC-10_ef_20230913_RB_4	TC-10_ef_20230913_RB_5	TC-10_ef_20230913_RB_6
					Client sampling date / time	13-Sep-2023 00:00	13-Sep-2023 00:00	13-Sep-2023 00:00	13-Sep-2023 00:00	13-Sep-2023 00:00
						VA23C2951-026	VA23C2951-027	VA23C2951-028	VA23C2951-029	VA23C2951-030
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.14	0.50	0.40	0.31	0.63
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.038	0.128	0.112	0.085	0.163
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0210	0.0040	0.0295	0.0192	0.0069
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.00563	0.00102	0.00818	0.00520	0.00178
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		0.23	<0.10	0.18	0.21	0.12
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.062	0.021	0.050	0.056	0.031
Zinc	7440-66-6	E440/VA	0.50	mg/kg		170	137	139	146	189
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		45.6	34.6	38.7	39.4	48.6
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TC-10_ef_20230913_RB_7	TC-10_ef_20230913_RB_8	705-10_ef_20230915_RB_1	705-10_ef_20230915_RB_2	705-10_ef_20230915_RB_3
					Client sampling date / time	13-Sep-2023 00:00	13-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00
						VA23C2951-031	VA23C2951-032	VA23C2951-033	VA23C2951-034	VA23C2951-035
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		74.3	----	72.3	72.7	73.6
Moisture	----	E144-H/VA	2.0	%		----	68.5	----	----	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		62.2	----	8.0	21.3	5.5
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	24.7	----	----	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		16.0	----	2.21	5.81	1.45
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	7.8	----	----	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	<0.010	----	----	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	<0.010
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.238	----	0.112	0.121	0.373
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	0.363	----	----	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0611	----	0.0310	0.0330	0.0985
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	0.114	----	----	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	5.66	----	----	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		4.13	----	3.30	3.54	5.60
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	1.78	----	----	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		1.06	----	0.913	0.965	1.48
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	<0.010	----	----	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	<0.010	----	----	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	<0.0020
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	2.2	----	----	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		2.2	----	<1.0	1.4	1.8
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	0.70	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TC-10_ef_20230913_RB_7	TC-10_ef_20230913_RB_8	705-10_ef_20230915_RB_1	705-10_ef_20230915_RB_2	705-10_ef_20230915_RB_3
					Client sampling date / time	13-Sep-2023 00:00	13-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00
						VA23C2951-031	VA23C2951-032	VA23C2951-033	VA23C2951-034	VA23C2951-035
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		0.56	----	0.27	0.39	0.48
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0651	----	0.0475	0.0466	0.0723
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	0.040	----	----	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0167	----	0.0132	0.0127	0.0191
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	0.0128	----	----	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	28200	----	----	----
Calcium	7440-70-2	E440/VA	20	mg/kg		33100	----	23200	18600	34400
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	8880	----	----	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		8500	----	6420	5070	9080
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	0.0150	----	----	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0233	----	0.149	0.126	0.261
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	0.0047	----	----	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0060	----	0.0411	0.0344	0.0688
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.118	----	0.050	0.051	0.092
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	<0.20	----	----	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.030	----	0.014	0.014	0.024
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	0.084	----	----	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.083	----	0.050	0.061	0.141
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	0.0264	----	----	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0214	----	0.0139	0.0167	0.0372
Copper	7440-50-8	E440/VA	0.10	mg/kg		5.30	----	3.52	3.52	4.73
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	3.55	----	----	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		1.36	----	0.974	0.960	1.25
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	1.12	----	----	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		189	----	65.4	73.6	110
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	234	----	----	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		48.5	----	18.1	20.1	29.2
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	73.6	----	----	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	----	<0.020	<0.020	<0.020

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TC-10_ef_20230913_RB_7	TC-10_ef_20230913_RB_8	705-10_ef_20230915_RB_1	705-10_ef_20230915_RB_2	705-10_ef_20230915_RB_3
					Client sampling date / time	13-Sep-2023 00:00	13-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00
						VA23C2951-031	VA23C2951-032	VA23C2951-033	VA23C2951-034	VA23C2951-035
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	<0.050	----	----	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		<0.0040	----	<0.0040	0.0053	0.0040
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	<0.010	----	----	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	<0.50	----	----	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	----	<0.50	<0.50	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	<0.10	----	----	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	----	<0.10	<0.10	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	1400	----	----	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1470	----	1180	1160	2260
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	441	----	----	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		378	----	327	317	597
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	165	----	----	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		73.6	----	6.82	7.17	15.4
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	51.9	----	----	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		18.9	----	1.89	1.96	4.06
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	0.230	----	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.807	----	0.132	0.204	0.268
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	0.0725	----	----	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.208	----	0.0367	0.0557	0.0708
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.146	----	0.056	0.078	0.104
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	0.210	----	----	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0376	----	0.0154	0.0213	0.0273
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	0.0662	----	----	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	0.32	----	----	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	----	<0.20	<0.20	<0.20
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	0.100	----	----	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	<0.040	<0.040
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	24200	----	----	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		27600	----	22100	18600	39500
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	7620	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TC-10_ef_20230913_RB_7	TC-10_ef_20230913_RB_8	705-10_ef_20230915_RB_1	705-10_ef_20230915_RB_2	705-10_ef_20230915_RB_3
					Client sampling date / time	13-Sep-2023 00:00	13-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00
						VA23C2951-031	VA23C2951-032	VA23C2951-033	VA23C2951-034	VA23C2951-035
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		7100	----	6110	5090	10400
Potassium	7440-09-7	E472/VA	20	mg/kg		----	10200	----	----	----
Potassium	7440-09-7	E440/VA	20	mg/kg		12700	----	12200	12700	26900
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	3230	----	----	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3260	----	3380	3470	7100
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	6.47	----	----	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		6.50	----	14.9	14.8	36.2
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	2.04	----	----	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		1.67	----	4.12	4.06	9.55
Selenium	7782-49-2	E440/VA	0.050	mg/kg		1.54	----	0.790	0.642	1.45
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	1.59	----	----	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.397	----	0.219	0.175	0.383
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	0.502	----	----	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	3360	----	----	----
Sodium	7440-23-5	E440/VA	20	mg/kg		3900	----	3130	3340	6300
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	1060	----	----	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		1000	----	865	910	1660
Strontium	7440-24-6	E440/VA	0.050	mg/kg		31.2	----	28.0	23.6	43.9
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	24.2	----	----	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		8.02	----	7.74	6.44	11.6
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	7.62	----	----	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	<0.020	----	----	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	----	<0.020	<0.020	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	<0.0040	----	----	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	----	<0.0040	<0.0040	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	0.0069	----	----	----
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0078	----	0.0090	0.0093	0.0290
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	0.00218	----	----	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00200	----	0.00250	0.00253	0.00764
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	0.63	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TC-10_ef_20230913_RB_7	TC-10_ef_20230913_RB_8	705-10_ef_20230915_RB_1	705-10_ef_20230915_RB_2	705-10_ef_20230915_RB_3
					Client sampling date / time	13-Sep-2023 00:00	13-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00
						VA23C2951-031	VA23C2951-032	VA23C2951-033	VA23C2951-034	VA23C2951-035
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.65	----	0.25	0.38	0.59
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	0.199	----	----	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.166	----	0.070	0.104	0.155
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	0.0137	----	----	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0232	----	0.0164	0.0159	0.0155
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	0.00432	----	----	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.00596	----	0.00453	0.00435	0.00409
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	0.24	----	----	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		0.28	----	<0.10	<0.10	<0.10
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	0.075	----	----	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.072	----	<0.020	0.025	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg		128	----	131	80.5	233
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	145	----	----	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		33.0	----	36.2	22.0	61.6
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	45.6	----	----	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	<0.20	----	----	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	----	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	705-10_ef_20230915_RB_4	705-10_ef_20230915_RB_5	705-10_ef_20230915_RB_6	705-10_ef_20230915_RB_7	705-10_ef_20230915_RB_8
					Client sampling date / time	15-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00
						VA23C2951-036	VA23C2951-037	VA23C2951-038	VA23C2951-039	VA23C2951-040
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		71.3	----	----	----	----
Moisture	----	E144-H/VA	2.0	%		----	72.1	71.9	69.6	66.8
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		14.3	----	----	----	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	21.6	24.4	21.0	12.6
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		4.10	----	----	----	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	6.0	6.8	6.4	4.2
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	<0.010	<0.010	<0.010	<0.010
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	----	----	----	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	<0.0020	<0.0020
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	----	----	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.119	----	----	----	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	0.144	0.208	0.131	0.108
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0342	----	----	----	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	0.0401	0.0585	0.0399	0.0360
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	4.16	3.57	5.04	5.80
Barium	7440-39-3	E440/VA	0.050	mg/kg		3.90	----	----	----	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	1.16	1.00	1.53	1.93
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		1.12	----	----	----	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	<0.010	<0.010	<0.010	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	----	----	----	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	<0.0020	<0.0020
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	----	----	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	----	----	----	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	----	----	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	1.8	1.6	3.5	2.1
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	----	----	----	----
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	0.52	0.46	1.08	0.71

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	705-10_ef_20230915_RB_4	705-10_ef_20230915_RB_5	705-10_ef_20230915_RB_6	705-10_ef_20230915_RB_7	705-10_ef_20230915_RB_8
					Client sampling date / time	15-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00
						VA23C2951-036	VA23C2951-037	VA23C2951-038	VA23C2951-039	VA23C2951-040
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		0.24	----	----	----	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0250	----	----	----	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	0.038	0.052	0.047	0.047
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0072	----	----	----	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	0.0107	0.0145	0.0143	0.0157
Calcium	7440-70-2	E472/VA	20	mg/kg		----	19700	17900	19000	17400
Calcium	7440-70-2	E440/VA	20	mg/kg		19200	----	----	----	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	5510	5020	5780	5770
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		5510	----	----	----	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	0.119	0.117	0.0494	0.0548
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.132	----	----	----	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	0.0333	0.0327	0.0150	0.0182
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0380	----	----	----	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		<0.050	----	----	----	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	<0.20	<0.20	<0.20	<0.20
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.014	----	----	----	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	<0.040	0.052	<0.040	<0.040
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	0.057	0.108	0.053	0.034
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.060	----	----	----	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	0.0159	0.0302	0.0163	0.0112
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0172	----	----	----	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		2.41	----	----	----	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	2.56	3.06	2.99	2.96
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.692	----	----	----	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	0.714	0.859	0.910	0.983
Iron	7439-89-6	E440/VA	3.0	mg/kg		71.0	----	----	----	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	68.9	80.0	70.1	63.6
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		20.4	----	----	----	----
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	19.2	22.5	21.3	21.1
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.052	----	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	705-10_ef_20230915_RB_4	705-10_ef_20230915_RB_5	705-10_ef_20230915_RB_6	705-10_ef_20230915_RB_7	705-10_ef_20230915_RB_8
					Client sampling date / time	15-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00
						VA23C2951-036	VA23C2951-037	VA23C2951-038	VA23C2951-039	VA23C2951-040
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	<0.050	<0.050	<0.050	<0.050
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0148	----	----	----	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	<0.010	<0.010	<0.010	0.012
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	<0.50	<0.50	<0.50	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	----	----	----	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	<0.10	<0.10	<0.10	<0.10
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	----	----	----	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	1160	1420	1230	1320
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1130	----	----	----	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	324	398	375	438
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		324	----	----	----	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	6.87	13.4	9.92	11.3
Manganese	7439-96-5	E440/VA	0.050	mg/kg		4.92	----	----	----	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	1.92	3.77	3.02	3.76
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		1.41	----	----	----	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	0.134	0.159	0.102	0.0811
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.177	----	----	----	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	0.0373	0.0448	0.0310	0.0269
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0507	----	----	----	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.049	----	----	----	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	0.062	0.084	0.121	0.107
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0142	----	----	----	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	0.0175	0.0237	0.0370	0.0356
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	<0.20	<0.20	0.20	<0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	----	----	----	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	<0.040	0.041	0.061	<0.040
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	----	----	----	----
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	18300	20400	17600	18900
Phosphorus	7723-14-0	E440/VA	10	mg/kg		20000	----	----	----	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	5110	5720	5370	6270

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	705-10_ef_20230915_RB_4	705-10_ef_20230915_RB_5	705-10_ef_20230915_RB_6	705-10_ef_20230915_RB_7	705-10_ef_20230915_RB_8
					Client sampling date / time	15-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00
						VA23C2951-036	VA23C2951-037	VA23C2951-038	VA23C2951-039	VA23C2951-040
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		5750	----	----	----	----
Potassium	7440-09-7	E472/VA	20	mg/kg		----	11400	13600	11400	12100
Potassium	7440-09-7	E440/VA	20	mg/kg		13000	----	----	----	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	3180	3820	3460	4030
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3720	----	----	----	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	12.2	21.9	8.95	8.75
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		16.2	----	----	----	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	3.42	6.16	2.72	2.91
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		4.64	----	----	----	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.742	----	----	----	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	0.77	0.58	0.65	0.49
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.213	----	----	----	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	0.215	0.164	0.197	0.162
Sodium	7440-23-5	E472/VA	20	mg/kg		----	3230	3650	3930	3890
Sodium	7440-23-5	E440/VA	20	mg/kg		3200	----	----	----	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	901	1020	1190	1290
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		918	----	----	----	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		23.2	----	----	----	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	24.1	23.4	25.2	24.0
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		6.66	----	----	----	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	6.72	6.58	7.67	7.99
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	<0.020	<0.020	<0.020	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	----	----	----	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	<0.0040	<0.0040	<0.0040	<0.0040
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	----	----	----	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	0.0096	0.0145	0.0085	0.0075
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0084	----	----	----	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	0.00267	0.00406	0.00258	0.00249
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00242	----	----	----	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	0.70	0.50	0.72	0.35

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	705-10_ef_20230915_RB_4	705-10_ef_20230915_RB_5	705-10_ef_20230915_RB_6	705-10_ef_20230915_RB_7	705-10_ef_20230915_RB_8
					Client sampling date / time	15-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00	15-Sep-2023 00:00
						VA23C2951-036	VA23C2951-037	VA23C2951-038	VA23C2951-039	VA23C2951-040
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.39	----	----	----	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	0.194	0.140	0.220	0.118
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.111	----	----	----	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	0.0133	0.0085	0.0176	0.0050
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0062	----	----	----	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	0.00371	0.00240	0.00537	0.00166
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.00179	----	----	----	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	<0.10	0.12	0.16	<0.10
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	----	----	----	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	0.024	0.035	0.048	0.030
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	----	----	----	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		78.7	----	----	----	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	81.0	104	88.5	99.9
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		22.6	----	----	----	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	22.6	29.3	26.9	33.2
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	<0.20	0.28	<0.20	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	----	----	----	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	<0.040	0.079	<0.040	<0.040
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	----	----	----	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-05_ef_20230914_RB_1	661-05_ef_20230914_RB_2	661-05_ef_20230914_RB_3	KL-01_gn_20230921_RB_2 liver*	KL-01_gn_20230921_RB_2 muscle*
					Client sampling date / time	14-Sep-2023 00:00	14-Sep-2023 00:00	14-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-041	VA23C2951-042	VA23C2951-043	VA23C2951-047	VA23C2951-048
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		74.1	76.0	75.1	----	74.6
Moisture	----	E144-H/VA	2.0	%		----	----	----	65.0	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		3.8	10.8	15.2	----	<2.0
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	----	<5.0	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		0.98	2.59	3.78	----	<0.40
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	----	<1.0	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	----	<0.010	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	----	<0.010
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	----	<0.0020	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	----	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.086	0.101	0.153	----	0.079
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	----	0.229	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0223	0.0243	0.0381	----	0.0200
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	----	0.0802	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	----	0.340	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		0.980	1.48	1.77	----	<0.050
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	----	0.119	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		0.254	0.354	0.442	----	0.010
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	----	<0.010	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	----	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	----	<0.0020	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	----	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	----	<0.010	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	----	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	----	<0.0020	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	----	<0.0020
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	----	<1.0	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	<1.0	<1.0	----	<1.0

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-05_ef_20230914_RB_1	661-05_ef_20230914_RB_2	661-05_ef_20230914_RB_3	KL-01_gn_20230921_RB_2 liver*	KL-01_gn_20230921_RB_2 muscle*
					Client sampling date / time	14-Sep-2023 00:00	14-Sep-2023 00:00	14-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-041	VA23C2951-042	VA23C2951-043	VA23C2951-047	VA23C2951-048
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	----	<0.20	----
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	<0.20	<0.20	----	<0.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0096	0.0217	0.0217	----	<0.0050
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	----	0.029	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0025	0.0052	0.0054	----	<0.0010
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	----	0.0102	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	----	794	----
Calcium	7440-70-2	E440/VA	20	mg/kg		15900	18100	22200	----	1010
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	----	278	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		4120	4350	5520	----	256
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	----	0.0050	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0988	0.0839	0.0541	----	0.0081
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	----	0.0018	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0256	0.0201	0.0135	----	0.0021
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.368	0.236	0.240	----	<0.050
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	----	<0.20	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.095	0.056	0.060	----	<0.010
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	----	<0.040	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	----	0.032	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.033	0.061	0.106	----	<0.020
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	----	0.0114	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0085	0.0145	0.0264	----	<0.0040
Copper	7440-50-8	E440/VA	0.10	mg/kg		3.06	3.09	4.20	----	0.86
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	----	183	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.792	0.741	1.04	----	0.218
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	----	64.0	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		50.5	67.6	80.2	----	11.8
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	----	497	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		13.1	16.2	20.0	----	3.00

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-05_ef_20230914_RB_1	661-05_ef_20230914_RB_2	661-05_ef_20230914_RB_3	KL-01_gn_20230921_RB_2 liver*	KL-01_gn_20230921_RB_2 muscle*
					Client sampling date / time	14-Sep-2023 00:00	14-Sep-2023 00:00	14-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-041	VA23C2951-042	VA23C2951-043	VA23C2951-047	VA23C2951-048
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	----	174	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	----	<0.020
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	----	<0.050	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	----	<0.0040
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	----	<0.010	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	----	<0.50	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	----	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	----	<0.10	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	----	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	----	758	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1120	1150	1210	----	1100
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	----	265	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		289	276	302	----	279
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	----	9.66	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		3.76	8.43	10.9	----	0.586
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	----	3.38	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		0.972	2.02	2.71	----	0.149
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	----	0.137	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.279	0.360	0.218	----	0.221
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	----	0.0481	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0723	0.0864	0.0542	----	0.0560
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.041	0.048	0.042	----	<0.020
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	----	0.501	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0107	0.0116	0.0105	----	<0.0040
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	----	0.175	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	----	<0.20	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	----	<0.20
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	----	<0.040	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	----	<0.040

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	661-05_ef_20230914_RB_1	661-05_ef_20230914_RB_2	661-05_ef_20230914_RB_3	KL-01_gn_20230921_RB_2 liver*	KL-01_gn_20230921_RB_2 muscle*
					Client sampling date / time	14-Sep-2023 00:00	14-Sep-2023 00:00	14-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-041	VA23C2951-042	VA23C2951-043	VA23C2951-047	VA23C2951-048
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	----	11200	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		18100	20400	23600	----	10300
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	----	3940	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		4680	4900	5880	----	2620
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	----	8840	----
Potassium	7440-09-7	E440/VA	20	mg/kg		14300	14600	13700	----	16200
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	----	3100	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3710	3490	3410	----	4100
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	----	5.29	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		11.6	8.66	8.72	----	7.03
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	----	1.85	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		2.99	2.08	2.17	----	1.78
Selenium	7782-49-2	E440/VA	0.050	mg/kg		1.50	2.15	2.75	----	0.342
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	----	5.44	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.389	0.516	0.685	----	0.087
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	----	1.91	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	----	3300	----
Sodium	7440-23-5	E440/VA	20	mg/kg		2670	3350	3400	----	1610
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	----	1150	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		691	804	847	----	408
Strontium	7440-24-6	E440/VA	0.050	mg/kg		17.8	21.2	26.6	----	0.809
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	----	1.62	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		4.60	5.07	6.61	----	0.205
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	----	0.566	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	----	<0.020	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	----	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	----	<0.0040	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	----	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	----	0.0074	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: 661-05_ef_20230914_RB_1	661-05_ef_20230914_RB_2	661-05_ef_20230914_RB_3	KL-01_gn_20230921_RB_2 liver*	KL-01_gn_20230921_RB_2 muscle*
Client sampling date / time					14-Sep-2023 00:00	14-Sep-2023 00:00	14-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
					VA23C2951-041	VA23C2951-042	VA23C2951-043	VA23C2951-047	VA23C2951-048
					Result	Result	Result	Result	Result
Metals									
Thallium	7440-28-0	E440/VA	0.0020	mg/kg	0.0207	0.0178	0.0180	----	<0.0020
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt	----	----	----	0.00258	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt	0.00536	0.00426	0.00448	----	<0.00040
Tin	7440-31-5	E472/VA	0.10	mg/kg	----	----	----	<0.10	----
Tin	7440-31-5	E440/VA	0.10	mg/kg	0.27	0.48	0.16	----	0.15
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt	----	----	----	<0.020	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt	0.069	0.115	0.039	----	0.039
Uranium	7440-61-1	E472/VA	0.0020	mg/kg	----	----	----	<0.0020	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg	0.0070	0.0146	0.0276	----	<0.0020
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt	----	----	----	<0.00040	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt	0.00182	0.00350	0.00687	----	<0.00040
Vanadium	7440-62-2	E472/VA	0.10	mg/kg	----	----	----	<0.10	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg	<0.10	0.14	0.15	----	<0.10
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt	----	----	----	<0.020	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt	0.023	0.034	0.037	----	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg	80.1	94.8	119	----	18.9
Zinc	7440-66-6	E472/VA	1.0	mg/kg	----	----	----	139	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt	20.7	22.7	29.6	----	4.79
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt	----	----	----	48.7	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg	----	----	----	<0.20	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg	<0.20	<0.20	<0.20	----	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt	----	----	----	<0.040	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt	<0.040	<0.040	<0.040	----	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_RB_2 carcass*	KL-01_gn_20230922_MW_1 liver*	KL-01_gn_20230922_MW_1 muscle*	KL-01_gn_20230922_MW_1 carcass*	KL-01_gn_20230921_RB_6 liver*
					Client sampling date / time	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-049	VA23C2951-050	VA23C2951-051	VA23C2951-052	VA23C2951-053
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		69.1	----	70.9	72.8	----
Moisture	----	E144-H/VA	2.0	%		----	72.2	----	----	72.5
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		3.2	----	<2.0	3.7	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	<5.0	----	----	<5.0
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		1.01	----	<0.40	1.00	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	<1.0	----	----	<1.0
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	<0.010	----	----	<0.010
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	<0.0020
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.157	----	0.163	0.144	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	0.142	----	----	0.315
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0486	----	0.0473	0.0392	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	0.0394	----	----	0.0867
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	1.01	----	----	0.336
Barium	7440-39-3	E440/VA	0.050	mg/kg		0.547	----	<0.050	3.18	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	0.280	----	----	0.092
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		0.169	----	0.012	0.866	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	<0.010	----	----	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	<0.0020
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	<0.010	----	----	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	<0.0020
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	<1.0	----	----	<1.0
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	----	<1.0	<1.0	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_RB_2 carcass*	KL-01_gn_20230922_MW_1 liver*	KL-01_gn_20230922_MW_1 muscle*	KL-01_gn_20230922_MW_1 carcass*	KL-01_gn_20230921_RB_6 liver*
					Client sampling date / time	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-049	VA23C2951-050	VA23C2951-051	VA23C2951-052	VA23C2951-053
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	0.22	----	----	<0.20
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	----	<0.20	<0.20	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0070	----	<0.0050	<0.0050	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	0.013	----	----	0.013
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0022	----	<0.0010	<0.0010	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	0.0037	----	----	0.0035
Calcium	7440-70-2	E472/VA	20	mg/kg		----	1280	----	----	679
Calcium	7440-70-2	E440/VA	20	mg/kg		5900	----	814	59200	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	354	----	----	187
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		1830	----	236	16100	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	0.0143	----	----	0.0053
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0063	----	0.0185	0.0147	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	0.0040	----	----	0.0015
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0019	----	0.0054	0.0040	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		<0.050	----	<0.050	<0.050	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	<0.20	----	----	<0.20
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		<0.010	----	<0.010	<0.010	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	<0.040
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	0.053	----	----	0.055
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.031	----	<0.020	0.041	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	0.0147	----	----	0.0153
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0097	----	<0.0040	0.0112	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		2.82	----	1.46	1.44	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	6.34	----	----	384
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.872	----	0.425	0.394	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	1.76	----	----	106
Iron	7439-89-6	E440/VA	3.0	mg/kg		90.7	----	14.7	59.6	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	200	----	----	1490
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		28.0	----	4.28	16.2	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_RB_2 carcass*	KL-01_gn_20230922_MW_1 liver*	KL-01_gn_20230922_MW_1 muscle*	KL-01_gn_20230922_MW_1 carcass*	KL-01_gn_20230921_RB_6 liver*
					Client sampling date / time	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-049	VA23C2951-050	VA23C2951-051	VA23C2951-052	VA23C2951-053
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	55.4	----	----	410
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.022	----	<0.020	0.044	----
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	<0.050	----	----	<0.050
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0069	----	<0.0040	0.0119	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	<0.010	----	----	<0.010
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	<0.50	----	----	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	----	<0.50	<0.50	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	<0.10	----	----	<0.10
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	----	<0.10	<0.10	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	788	----	----	671
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		834	----	1040	1980	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	219	----	----	185
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		258	----	302	540	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	16.6	----	----	5.34
Manganese	7439-96-5	E440/VA	0.050	mg/kg		9.08	----	0.495	26.7	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	4.61	----	----	1.47
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		2.81	----	0.144	7.28	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	0.0998	----	----	0.262
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.150	----	0.0456	0.0500	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	0.0277	----	----	0.0720
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0464	----	0.0132	0.0136	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.030	----	<0.020	0.036	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	0.507	----	----	0.668
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0094	----	<0.0040	0.0100	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	0.140	----	----	0.184
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	<0.20	----	----	<0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	----	<0.20	<0.20	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	<0.040
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	<0.040	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_RB_2 carcass*	KL-01_gn_20230922_MW_1 liver*	KL-01_gn_20230922_MW_1 muscle*	KL-01_gn_20230922_MW_1 carcass*	KL-01_gn_20230921_RB_6 liver*
					Client sampling date / time	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-049	VA23C2951-050	VA23C2951-051	VA23C2951-052	VA23C2951-053
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	13200	----	----	11800
Phosphorus	7723-14-0	E440/VA	10	mg/kg		9690	----	9230	48900	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	3670	----	----	3240
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		3000	----	2680	13300	----
Potassium	7440-09-7	E472/VA	20	mg/kg		----	12200	----	----	11600
Potassium	7440-09-7	E440/VA	20	mg/kg		9440	----	14900	13600	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	3400	----	----	3210
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		2920	----	4320	3710	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	6.52	----	----	5.62
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		4.83	----	5.35	5.61	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	1.81	----	----	1.55
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		1.49	----	1.55	1.53	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.519	----	0.284	0.459	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	1.61	----	----	19.7
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.161	----	0.082	0.125	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	0.448	----	----	5.42
Sodium	7440-23-5	E472/VA	20	mg/kg		----	3570	----	----	4120
Sodium	7440-23-5	E440/VA	20	mg/kg		2240	----	1420	3820	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	990	----	----	1130
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		694	----	412	1040	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		7.30	----	0.524	50.7	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	1.31	----	----	1.28
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		2.26	----	0.152	13.8	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	0.362	----	----	0.351
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	<0.020	----	----	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	----	<0.020	<0.020	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	<0.0040	----	----	<0.0040
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	----	<0.0040	<0.0040	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	0.0025	----	----	0.0072

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_RB_2 carcass*	KL-01_gn_20230922_MW_1 liver*	KL-01_gn_20230922_MW_1 muscle*	KL-01_gn_20230922_MW_1 carcass*	KL-01_gn_20230921_RB_6 liver*
					Client sampling date / time	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-049	VA23C2951-050	VA23C2951-051	VA23C2951-052	VA23C2951-053
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		<0.0020	----	<0.0020	<0.0020	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	0.00070	----	----	0.00198
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		<0.00040	----	<0.00040	0.00045	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	<0.10	----	----	<0.10
Tin	7440-31-5	E440/VA	0.10	mg/kg		<0.10	----	0.10	<0.10	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	<0.020	----	----	<0.020
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		<0.020	----	0.030	<0.020	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	0.0025	----	----	<0.0020
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	----	<0.0020	0.0045	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	0.00069	----	----	<0.00040
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	----	<0.00040	0.00123	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	<0.10	----	----	<0.10
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		0.14	----	<0.10	0.15	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	0.022	----	----	<0.020
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.043	----	<0.020	0.041	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		94.1	----	14.8	84.6	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	173	----	----	167
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		29.1	----	4.29	23.0	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	48.0	----	----	46.0
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	<0.20	----	----	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	----	<0.20	<0.20	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	<0.040
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	<0.040	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_RB_6 muscle*	KL-01_gn_20230921_RB_6 carcass*	KL-01_gn_20230921_MW_8 liver*	KL-01_gn_20230921_MW_8 muscle*	KL-01_gn_20230921_MW_8 carcass*
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-054	VA23C2951-055	VA23C2951-056	VA23C2951-057	VA23C2951-058
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		73.7	69.8	78.5	75.5	70.9
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		<2.0	<2.0	2.1	<2.0	5.0
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		<0.40	<0.40	0.45	<0.40	1.45
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.068	0.145	0.031	0.041	0.047
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0178	0.0440	0.0066	0.0100	0.0137
Barium	7440-39-3	E440/VA	0.050	mg/kg		<0.050	0.447	0.328	<0.050	0.633
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		<0.010	0.135	0.070	<0.010	0.184
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	<1.0	<1.0	<1.0	<1.0
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		<0.0050	<0.0050	0.0068	<0.0050	<0.0050
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		<0.0010	0.0012	0.0015	<0.0010	<0.0010
Calcium	7440-70-2	E440/VA	20	mg/kg		808	7030	344	656	10400
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		213	2130	74.0	161	3020
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0083	0.0062	0.0120	0.0171	0.0096
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0022	0.0019	0.0026	0.0042	0.0028
Chromium	7440-47-3	E440/VA	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		<0.010	<0.010	<0.010	<0.010	<0.010
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		<0.020	0.035	0.083	<0.020	0.053
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0106	0.0179	<0.0040	0.0156
Copper	7440-50-8	E440/VA	0.10	mg/kg		0.99	1.62	5.35	1.00	2.12
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.261	0.491	1.15	0.244	0.618
Iron	7439-89-6	E440/VA	3.0	mg/kg		17.8	62.5	256	10.8	60.0

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_RB_6 muscle*	KL-01_gn_20230921_RB_6 carcass*	KL-01_gn_20230921_MW_8 liver*	KL-01_gn_20230921_MW_8 muscle*	KL-01_gn_20230921_MW_8 carcass*
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-054	VA23C2951-055	VA23C2951-056	VA23C2951-057	VA23C2951-058
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		4.68	18.9	55.0	2.64	17.5
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	<0.020
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	<0.0040	0.0042
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1150	944	1140	1210	1180
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		303	286	247	296	343
Manganese	7439-96-5	E440/VA	0.050	mg/kg		0.424	6.13	9.16	0.467	11.9
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		0.111	1.85	1.97	0.114	3.46
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.272	0.211	0.121	0.0726	0.0571
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0715	0.0638	0.0260	0.0178	0.0166
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		<0.020	0.020	0.368	<0.020	0.042
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0061	0.0793	<0.0040	0.0122
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	<0.040	<0.040
Phosphorus	7723-14-0	E440/VA	10	mg/kg		10700	12400	21200	11000	16200
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		2800	3740	4580	2700	4720
Potassium	7440-09-7	E440/VA	20	mg/kg		16200	11500	18600	18600	11300
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		4260	3480	4020	4550	3290
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		5.67	4.57	11.2	5.50	3.77
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		1.49	1.38	2.42	1.35	1.10
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.330	0.397	1.19	0.244	0.389
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.087	0.120	0.255	0.060	0.113
Sodium	7440-23-5	E440/VA	20	mg/kg		1370	2130	4640	1610	2900
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		360	645	1000	394	846
Strontium	7440-24-6	E440/VA	0.050	mg/kg		0.605	8.12	0.289	0.362	8.94
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		0.159	2.46	0.062	0.089	2.60
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	<0.020
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	<0.0040	<0.0040

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_RB_6 muscle*	KL-01_gn_20230921_RB_6 carcass*	KL-01_gn_20230921_MW_8 liver*	KL-01_gn_20230921_MW_8 muscle*	KL-01_gn_20230921_MW_8 carcass*
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-054	VA23C2951-055	VA23C2951-056	VA23C2951-057	VA23C2951-058
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	0.0037	<0.0020	<0.0020
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		<0.00040	0.00055	0.00080	<0.00040	<0.00040
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.12	<0.10	<0.10	<0.10	<0.10
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.031	<0.020	<0.020	<0.020	<0.020
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	<0.0020	<0.0020	0.0021
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	<0.00040	<0.00040	<0.00040	0.00062
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	<0.10	<0.10	<0.10	<0.10
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	<0.020	<0.020	<0.020	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg		16.3	85.2	84.4	15.3	66.0
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		4.28	25.8	18.2	3.76	19.2
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_MW_7 liver*	KL-01_gn_20230921_MW_7 muscle*	KL-01_gn_20230921_MW_7 carcass*	KL-01_gn_20230921_RB_4 liver*	KL-01_gn_20230921_RB_4 muscle*
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-059	VA23C2951-060	VA23C2951-061	VA23C2951-065	VA23C2951-066
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		----	74.2	70.2	----	75.0
Moisture	----	E144-H/VA	2.0	%		48.8	----	----	67.7	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		----	<2.0	24.2	----	<2.0
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		<5.0	----	----	<5.0	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		----	<0.40	7.22	----	<0.40
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		<1.0	----	----	<1.0	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		<0.010	----	----	<0.010	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		----	<0.010	<0.010	----	<0.010
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	<0.0020	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	----	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		----	0.050	0.085	----	0.107
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		<0.030	----	----	0.193	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		----	0.0129	0.0255	----	0.0268
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		0.0089	----	----	0.0623	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		0.189	----	----	0.304	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		----	<0.050	0.987	----	<0.050
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		0.097	----	----	0.098	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		----	<0.010	0.295	----	0.010
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		<0.010	----	----	<0.010	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		----	<0.010	<0.010	----	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	<0.0020	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	----	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		<0.010	----	----	<0.010	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		----	<0.010	<0.010	----	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	<0.0020	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	----	<0.0020
Boron	7440-42-8	E472/VA	1.0	mg/kg		<1.0	----	----	<1.0	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		----	<1.0	<1.0	----	<1.0

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_MW_7 liver*	KL-01_gn_20230921_MW_7 muscle*	KL-01_gn_20230921_MW_7 carcass*	KL-01_gn_20230921_RB_4 liver*	KL-01_gn_20230921_RB_4 muscle*
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-059	VA23C2951-060	VA23C2951-061	VA23C2951-065	VA23C2951-066
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		<0.20	----	----	<0.20	----
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		----	<0.20	<0.20	----	<0.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		----	<0.0050	0.0082	----	<0.0050
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		<0.010	----	----	0.019	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		----	<0.0010	0.0025	----	<0.0010
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	0.0063	----
Calcium	7440-70-2	E472/VA	20	mg/kg		162	----	----	684	----
Calcium	7440-70-2	E440/VA	20	mg/kg		----	425	13700	----	634
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		83.1	----	----	221	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		----	110	4090	----	158
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		<0.0050	----	----	<0.0050	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		----	0.0099	0.0075	----	0.0074
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		0.0015	----	----	0.0015	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		----	0.0025	0.0022	----	0.0018
Chromium	7440-47-3	E440/VA	0.050	mg/kg		----	<0.050	0.055	----	<0.050
Chromium	7440-47-3	E472/VA	0.20	mg/kg		<0.20	----	----	<0.20	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		----	<0.010	0.016	----	<0.010
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	<0.040	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		0.031	----	----	0.034	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		----	<0.020	0.048	----	<0.020
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		0.0160	----	----	0.0109	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	0.0144	----	<0.0040
Copper	7440-50-8	E440/VA	0.10	mg/kg		----	1.35	3.22	----	0.91
Copper	7440-50-8	E472/VA	0.20	mg/kg		2.76	----	----	112	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		----	0.349	0.961	----	0.227
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		1.41	----	----	36.1	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		----	14.6	171	----	10.9
Iron	7439-89-6	E472/VA	5.0	mg/kg		128	----	----	535	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		----	3.77	51.1	----	2.72

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_MW_7 liver*	KL-01_gn_20230921_MW_7 muscle*	KL-01_gn_20230921_MW_7 carcass*	KL-01_gn_20230921_RB_4 liver*	KL-01_gn_20230921_RB_4 muscle*
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-059	VA23C2951-060	VA23C2951-061	VA23C2951-065	VA23C2951-066
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		65.6	----	----	173	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		----	<0.020	0.025	----	<0.020
Lead	7439-92-1	E472/VA	0.050	mg/kg		<0.050	----	----	<0.050	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	0.0075	----	<0.0040
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		<0.010	----	----	<0.010	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		<0.50	----	----	<0.50	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		----	<0.50	<0.50	----	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		<0.10	----	----	<0.10	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		----	<0.10	<0.10	----	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		480	----	----	549	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		----	1150	1180	----	1120
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		245	----	----	178	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		----	296	353	----	280
Manganese	7439-96-5	E472/VA	0.050	mg/kg		4.41	----	----	5.35	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		----	0.355	14.2	----	0.335
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		2.26	----	----	1.73	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		----	0.092	4.23	----	0.084
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		0.0479	----	----	0.189	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		----	0.0615	0.0506	----	0.284
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		0.0245	----	----	0.0611	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		----	0.0158	0.0151	----	0.0710
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		----	<0.020	0.087	----	<0.020
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		0.161	----	----	0.471	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	0.0261	----	<0.0040
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		0.0826	----	----	0.152	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		<0.20	----	----	<0.20	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		----	<0.20	<0.20	----	<0.20
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	<0.040	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		----	<0.040	<0.040	----	<0.040

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_MW_7 liver*	KL-01_gn_20230921_MW_7 muscle*	KL-01_gn_20230921_MW_7 carcass*	KL-01_gn_20230921_RB_4 liver*	KL-01_gn_20230921_RB_4 muscle*
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-059	VA23C2951-060	VA23C2951-061	VA23C2951-065	VA23C2951-066
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		8740	----	----	9950	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		----	10000	17000	----	10700
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		4470	----	----	3220	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		----	2580	5060	----	2690
Potassium	7440-09-7	E472/VA	20	mg/kg		7580	----	----	8990	----
Potassium	7440-09-7	E440/VA	20	mg/kg		----	16500	11500	----	17100
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		3880	----	----	2910	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		----	4240	3440	----	4270
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		4.14	----	----	5.64	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		----	5.71	4.29	----	7.55
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		2.12	----	----	1.82	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		----	1.47	1.28	----	1.89
Selenium	7782-49-2	E440/VA	0.050	mg/kg		----	0.164	0.302	----	0.304
Selenium	7782-49-2	E472/VA	0.10	mg/kg		0.34	----	----	9.41	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		----	0.042	0.090	----	0.076
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		0.175	----	----	3.04	----
Sodium	7440-23-5	E472/VA	20	mg/kg		2020	----	----	3140	----
Sodium	7440-23-5	E440/VA	20	mg/kg		----	1350	2800	----	1350
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		1030	----	----	1020	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		----	348	837	----	339
Strontium	7440-24-6	E440/VA	0.050	mg/kg		----	0.181	12.4	----	0.517
Strontium	7440-24-6	E472/VA	0.10	mg/kg		0.18	----	----	1.26	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		----	0.047	3.68	----	0.129
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		0.090	----	----	0.409	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		<0.020	----	----	<0.020	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		----	<0.020	<0.020	----	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		<0.0040	----	----	<0.0040	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	<0.0040	----	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		<0.0020	----	----	0.0090	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_MW_7 liver*	KL-01_gn_20230921_MW_7 muscle*	KL-01_gn_20230921_MW_7 carcass*	KL-01_gn_20230921_RB_4 liver*	KL-01_gn_20230921_RB_4 muscle*
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-059	VA23C2951-060	VA23C2951-061	VA23C2951-065	VA23C2951-066
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		----	<0.0020	<0.0020	----	<0.0020
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		<0.00040	----	----	0.00292	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		----	<0.00040	<0.00040	----	0.00040
Tin	7440-31-5	E472/VA	0.10	mg/kg		<0.10	----	----	<0.10	----
Tin	7440-31-5	E440/VA	0.10	mg/kg		----	0.12	<0.10	----	0.11
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		<0.020	----	----	<0.020	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		----	0.032	<0.020	----	0.027
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		<0.0020	----	----	<0.0020	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		----	<0.0020	0.0101	----	<0.0020
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		<0.00040	----	----	<0.00040	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		----	<0.00040	0.00301	----	<0.00040
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		<0.10	----	----	<0.10	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		----	<0.10	<0.10	----	<0.10
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		<0.020	----	----	<0.020	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		----	<0.020	0.025	----	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg		----	14.8	221	----	19.1
Zinc	7440-66-6	E472/VA	1.0	mg/kg		50.4	----	----	157	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		----	3.81	66.1	----	4.78
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		25.8	----	----	50.8	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		<0.20	----	----	<0.20	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		----	<0.20	<0.20	----	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	<0.040	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		----	<0.040	<0.040	----	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_RB_4 carcass*	KL-01_gn_20230921_RB_5 liver*	KL-01_gn_20230921_RB_5 muscle*	KL-01_gn_20230921_RB_5 carcass*	KL-01_gn_20230921_MW_9 liver*
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-067	VA23C2951-068	VA23C2951-069	VA23C2951-070	VA23C2951-077
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		73.6	78.0	77.4	79.2	----
Moisture	----	E144-H/VA	2.0	%		----	----	----	----	75.0
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		<2.0	<2.0	<2.0	<2.0	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	----	----	<5.0
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		<0.40	<0.40	<0.40	<0.40	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	----	----	<1.0
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	----	----	<0.010
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	----	----	<0.0020
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.232	0.251	0.040	0.164	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	----	----	0.051
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0612	0.0552	0.0090	0.0340	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	----	----	0.0127
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	----	----	0.425
Barium	7440-39-3	E440/VA	0.050	mg/kg		0.676	0.404	<0.050	1.59	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	----	----	0.106
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		0.178	0.089	<0.010	0.330	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	----	----	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	----	----	<0.0020
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	----	----	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	----	----	<0.0020
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	----	----	<1.0
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	<1.0	<1.0	<1.0	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_RB_4 carcass*	KL-01_gn_20230921_RB_5 liver*	KL-01_gn_20230921_RB_5 muscle*	KL-01_gn_20230921_RB_5 carcass*	KL-01_gn_20230921_MW_9 liver*
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-067	VA23C2951-068	VA23C2951-069	VA23C2951-070	VA23C2951-077
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	----	----	<0.20
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	<0.20	<0.20	<0.20	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0084	0.0270	<0.0050	0.0089	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	----	----	<0.010
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0022	0.0059	<0.0010	0.0018	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	----	----	<0.0020
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	----	----	439
Calcium	7440-70-2	E440/VA	20	mg/kg		10700	842	635	14500	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	----	----	110
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		2830	185	143	3020	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	----	----	0.0135
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0056	0.0058	0.0075	0.0060	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	----	----	0.0034
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0015	0.0013	0.0017	0.0012	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	----	----	<0.20
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		<0.010	<0.010	<0.010	<0.010	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	----	----	<0.040
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	----	----	0.070
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.046	0.052	<0.020	0.037	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	----	----	0.0174
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0121	0.0114	<0.0040	0.0077	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		1.81	322	0.82	2.20	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	----	----	5.21
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.479	70.7	0.186	0.456	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	----	----	1.30
Iron	7439-89-6	E440/VA	3.0	mg/kg		57.8	2540	19.7	180	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	----	----	184
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		15.2	558	4.45	37.5	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_RB_4 carcass*	KL-01_gn_20230921_RB_5 liver*	KL-01_gn_20230921_RB_5 muscle*	KL-01_gn_20230921_RB_5 carcass*	KL-01_gn_20230921_MW_9 liver*
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-067	VA23C2951-068	VA23C2951-069	VA23C2951-070	VA23C2951-077
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	----	----	46.0
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.030	<0.020	<0.020	<0.020	----
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	----	----	<0.050
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0078	<0.0040	<0.0040	<0.0040	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	----	----	<0.010
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	----	----	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	----	----	<0.10
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	<0.10	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	----	----	987
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		893	922	1200	1410	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	----	----	247
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		236	202	271	292	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	----	----	7.49
Manganese	7439-96-5	E440/VA	0.050	mg/kg		10.8	6.30	0.377	14.6	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	----	----	1.88
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		2.84	1.38	0.085	3.04	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	----	----	0.0860
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.180	0.811	0.756	0.567	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	----	----	0.0215
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0477	0.178	0.171	0.118	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.042	1.41	<0.020	0.047	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	----	----	0.425
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0110	0.310	<0.0040	0.0098	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	----	----	0.106
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	----	----	<0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	----	----	<0.040
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	<0.040	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_RB_4 carcass*	KL-01_gn_20230921_RB_5 liver*	KL-01_gn_20230921_RB_5 muscle*	KL-01_gn_20230921_RB_5 carcass*	KL-01_gn_20230921_MW_9 liver*
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-067	VA23C2951-068	VA23C2951-069	VA23C2951-070	VA23C2951-077
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	----	----	17300
Phosphorus	7723-14-0	E440/VA	10	mg/kg		14300	16600	11200	18000	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	----	----	4340
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		3780	3640	2540	3730	----
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	----	----	13200
Potassium	7440-09-7	E440/VA	20	mg/kg		12000	14700	18800	15000	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	----	----	3320
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3180	3240	4240	3110	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	----	----	7.82
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		5.78	4.45	3.89	3.58	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	----	----	1.96
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		1.53	0.977	0.879	0.743	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.498	34.5	0.365	0.776	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	----	----	0.86
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.132	7.58	0.082	0.161	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	----	----	0.215
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	----	----	3920
Sodium	7440-23-5	E440/VA	20	mg/kg		2610	6370	1740	4570	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	----	----	982
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		690	1400	394	948	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		12.4	1.47	0.397	16.9	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	----	----	0.46
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		3.28	0.323	0.090	3.50	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	----	----	0.115
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	----	----	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	----	----	<0.0040
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	<0.0040	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	----	----	0.0031

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_RB_4 carcass*	KL-01_gn_20230921_RB_5 liver*	KL-01_gn_20230921_RB_5 muscle*	KL-01_gn_20230921_RB_5 carcass*	KL-01_gn_20230921_MW_9 liver*
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-067	VA23C2951-068	VA23C2951-069	VA23C2951-070	VA23C2951-077
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		<0.0020	0.0078	<0.0020	<0.0020	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	----	----	----	0.00077
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00042	0.00170	<0.00040	<0.00040	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	----	----	<0.10
Tin	7440-31-5	E440/VA	0.10	mg/kg		<0.10	<0.10	0.15	<0.10	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	----	----	<0.020
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		<0.020	<0.020	0.033	<0.020	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	----	----	<0.0020
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	<0.0020	<0.0020	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	----	----	<0.00040
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	<0.00040	<0.00040	<0.00040	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	----	----	<0.10
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	0.26	<0.10	<0.10	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	----	----	<0.020
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	0.056	<0.020	<0.020	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		122	215	17.0	242	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	----	----	120
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		32.3	47.2	3.85	50.2	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	----	----	30.0
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	----	----	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	----	----	<0.040
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	<0.040	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_MW_9 muscle*	KL-01_gn_20230921_MW_9 carcass*	KL-01_gn_20230921_MW_10 liver*	KL-01_gn_20230921_MW_10 muscle*	KL-01_gn_20230921_MW_10 carcass*
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-078	VA23C2951-079	VA23C2951-083	VA23C2951-084	VA23C2951-085
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		74.4	71.5	----	72.9	72.4
Moisture	----	E144-H/VA	2.0	%		----	----	76.5	----	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		<2.0	5.4	----	<2.0	<2.0
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	<5.0	----	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		<0.40	1.53	----	<0.40	0.46
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	<1.0	----	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	<0.010
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.067	0.089	----	0.047	0.058
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	0.069	----	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0170	0.0254	----	0.0128	0.0161
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	0.0162	----	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	0.821	----	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		<0.050	0.942	----	<0.050	1.08
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	0.193	----	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		<0.010	0.269	----	<0.010	0.298
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	<0.0020
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	1.4	----	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	<1.0	----	<1.0	<1.0

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_MW_9 muscle*	KL-01_gn_20230921_MW_9 carcass*	KL-01_gn_20230921_MW_10 liver*	KL-01_gn_20230921_MW_10 muscle*	KL-01_gn_20230921_MW_10 carcass*
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-078	VA23C2951-079	VA23C2951-083	VA23C2951-084	VA23C2951-085
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	0.34	----	----
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	<0.20	----	<0.20	<0.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		<0.0050	<0.0050	----	<0.0050	<0.0050
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	0.014	----	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		<0.0010	<0.0010	----	<0.0010	0.0011
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	0.0034	----	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	390	----	----
Calcium	7440-70-2	E440/VA	20	mg/kg		504	18500	----	711	39800
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	91.6	----	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		129	5260	----	192	11000
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	0.0118	----	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0238	0.0155	----	0.0120	0.0102
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	0.0028	----	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0061	0.0044	----	0.0033	0.0028
Chromium	7440-47-3	E440/VA	0.050	mg/kg		<0.050	<0.050	----	<0.050	<0.050
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		<0.010	<0.010	----	<0.010	<0.010
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	0.057	----	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		<0.020	0.029	----	<0.020	<0.020
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	0.0134	----	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0083	----	<0.0040	<0.0040
Copper	7440-50-8	E440/VA	0.10	mg/kg		0.89	1.80	----	1.20	1.58
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	6.82	----	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.228	0.514	----	0.324	0.438
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	1.60	----	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		8.3	60.5	----	9.5	42.9
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	166	----	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		2.13	17.2	----	2.58	11.8

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_MW_9 muscle*	KL-01_gn_20230921_MW_9 carcass*	KL-01_gn_20230921_MW_10 liver*	KL-01_gn_20230921_MW_10 muscle*	KL-01_gn_20230921_MW_10 carcass*
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-078	VA23C2951-079	VA23C2951-083	VA23C2951-084	VA23C2951-085
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	39.0	----	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	0.023	----	<0.020	0.057
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	<0.050	----	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0065	----	<0.0040	0.0159
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	<0.010	----	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	<0.50	----	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	----	<0.50	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	<0.10	----	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	----	<0.10	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	876	----	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1170	1240	----	1080	1590
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	206	----	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		298	354	----	294	440
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	7.84	----	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		0.446	15.9	----	0.592	22.4
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	1.84	----	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		0.114	4.54	----	0.160	6.19
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	0.157	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0494	0.0382	----	0.0524	0.0533
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	0.0369	----	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0126	0.0109	----	0.0142	0.0147
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		<0.020	0.047	----	<0.020	0.027
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	0.543	----	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0135	----	<0.0040	0.0076
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	0.128	----	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	----	<0.20	<0.20
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	<0.040	<0.040

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_MW_9 muscle*	KL-01_gn_20230921_MW_9 carcass*	KL-01_gn_20230921_MW_10 liver*	KL-01_gn_20230921_MW_10 muscle*	KL-01_gn_20230921_MW_10 carcass*
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-078	VA23C2951-079	VA23C2951-083	VA23C2951-084	VA23C2951-085
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	15000	----	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		9950	19700	----	9110	37600
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	3520	----	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		2540	5620	----	2470	10400
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	16800	----	----
Potassium	7440-09-7	E440/VA	20	mg/kg		17200	12500	----	15400	14000
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	3950	----	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		4400	3550	----	4160	3870
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	7.87	----	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		6.51	5.00	----	5.40	5.50
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	1.85	----	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		1.66	1.42	----	1.46	1.52
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.200	0.348	----	0.204	0.267
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	1.09	----	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.051	0.099	----	0.055	0.074
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	0.257	----	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	4890	----	----
Sodium	7440-23-5	E440/VA	20	mg/kg		1730	3100	----	1590	3290
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	1150	----	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		441	884	----	430	910
Strontium	7440-24-6	E440/VA	0.050	mg/kg		0.232	16.1	----	0.406	31.8
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	0.31	----	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		0.059	4.58	----	0.110	8.79
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	0.074	----	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	<0.020	----	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	----	<0.020	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	<0.0040	----	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	----	<0.0040	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	0.0076	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_MW_9 muscle*	KL-01_gn_20230921_MW_9 carcass*	KL-01_gn_20230921_MW_10 liver*	KL-01_gn_20230921_MW_10 muscle*	KL-01_gn_20230921_MW_10 carcass*
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C2951-078	VA23C2951-079	VA23C2951-083	VA23C2951-084	VA23C2951-085
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	----	<0.0020	0.0033
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	----	0.00178	----	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		<0.00040	<0.00040	----	<0.00040	0.00090
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	<0.10	----	----
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.11	<0.10	----	0.13	<0.10
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	<0.020	----	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.028	<0.020	----	0.035	<0.020
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	<0.0020	----	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	0.0022	----	<0.0020	<0.0020
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	<0.00040	----	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	0.00064	----	<0.00040	0.00049
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	<0.10	----	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	0.10	----	<0.10	<0.10
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	<0.020	----	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	0.029	----	<0.020	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg		14.8	90.0	----	15.7	86.2
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	136	----	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		3.77	25.6	----	4.24	23.8
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	31.9	----	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	----	<0.20	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_MW_11 liver*	KL-01_gn_20230921_MW_11 muscle*	KL-01_gn_20230921_MW_11 carcass*	KL-01_gn_20230922_MW_2 liver*	KL-01_gn_20230922_MW_2 muscle*
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-086	VA23C2951-087	VA23C2951-088	VA23C2951-089	VA23C2951-090
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		----	77.1	74.4	78.0	75.0
Moisture	----	E144-H/VA	2.0	%		76.5	----	----	----	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		----	<2.0	5.2	<2.0	<2.0
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		<5.0	----	----	----	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		----	<0.40	1.33	0.44	<0.40
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		<1.0	----	----	----	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		<0.010	----	----	----	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		----	<0.010	<0.010	<0.010	<0.010
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	----	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		----	0.126	0.121	0.049	0.091
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		0.106	----	----	----	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		----	0.0289	0.0309	0.0108	0.0228
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		0.0250	----	----	----	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		0.920	----	----	----	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		----	<0.050	0.479	0.287	0.086
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		0.216	----	----	----	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		----	<0.010	0.122	0.063	0.021
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		<0.010	----	----	----	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		----	<0.010	<0.010	<0.010	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	----	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		<0.010	----	----	----	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		----	<0.010	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	----	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	<0.0020	<0.0020
Boron	7440-42-8	E472/VA	1.0	mg/kg		1.5	----	----	----	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		----	<1.0	<1.0	<1.0	<1.0

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_MW_11 liver*	KL-01_gn_20230921_MW_11 muscle*	KL-01_gn_20230921_MW_11 carcass*	KL-01_gn_20230922_MW_2 liver*	KL-01_gn_20230922_MW_2 muscle*
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-086	VA23C2951-087	VA23C2951-088	VA23C2951-089	VA23C2951-090
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		0.35	----	----	----	----
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		----	<0.20	<0.20	<0.20	<0.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		----	<0.0050	<0.0050	0.0092	<0.0050
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		0.013	----	----	----	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		----	<0.0010	<0.0010	0.0020	<0.0010
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		0.0030	----	----	----	----
Calcium	7440-70-2	E472/VA	20	mg/kg		323	----	----	----	----
Calcium	7440-70-2	E440/VA	20	mg/kg		----	655	12800	552	1520
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		76.0	----	----	----	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		----	150	3260	121	380
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		0.0081	----	----	----	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		----	0.0150	0.0104	0.0243	0.0302
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		0.0019	----	----	----	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		----	0.0034	0.0026	0.0054	0.0075
Chromium	7440-47-3	E440/VA	0.050	mg/kg		----	<0.050	<0.050	0.051	<0.050
Chromium	7440-47-3	E472/VA	0.20	mg/kg		<0.20	----	----	----	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		----	<0.010	<0.010	0.011	<0.010
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	----	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		0.072	----	----	----	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		----	<0.020	0.034	0.090	<0.020
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		0.0170	----	----	----	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	0.0086	0.0198	<0.0040
Copper	7440-50-8	E440/VA	0.10	mg/kg		----	1.41	1.78	5.96	1.44
Copper	7440-50-8	E472/VA	0.20	mg/kg		6.05	----	----	----	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		----	0.324	0.455	1.31	0.359
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		1.42	----	----	----	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		----	14.8	80.2	160	18.7
Iron	7439-89-6	E472/VA	5.0	mg/kg		249	----	----	----	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		----	3.40	20.5	35.3	4.67

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_MW_11 liver*	KL-01_gn_20230921_MW_11 muscle*	KL-01_gn_20230921_MW_11 carcass*	KL-01_gn_20230922_MW_2 liver*	KL-01_gn_20230922_MW_2 muscle*
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-086	VA23C2951-087	VA23C2951-088	VA23C2951-089	VA23C2951-090
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		58.4	----	----	----	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		----	<0.020	0.024	<0.020	<0.020
Lead	7439-92-1	E472/VA	0.050	mg/kg		<0.050	----	----	----	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	0.0062	<0.0040	<0.0040
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		<0.010	----	----	----	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		<0.50	----	----	----	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		----	<0.50	<0.50	<0.50	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		<0.10	----	----	----	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		----	<0.10	<0.10	<0.10	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		845	----	----	----	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		----	1240	1120	1290	1130
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		198	----	----	----	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		----	284	286	283	282
Manganese	7439-96-5	E472/VA	0.050	mg/kg		8.99	----	----	----	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		----	0.553	7.08	9.98	1.22
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		2.11	----	----	----	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		----	0.127	1.81	2.20	0.306
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		0.186	----	----	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		----	0.134	0.108	0.161	0.0937
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		0.0437	----	----	----	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		----	0.0307	0.0275	0.0355	0.0234
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		----	<0.020	0.043	0.357	<0.020
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		0.598	----	----	----	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	0.0111	0.0786	<0.0040
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		0.141	----	----	----	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		<0.20	----	----	----	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		----	<0.20	<0.20	<0.20	<0.20
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	----	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		----	<0.040	<0.040	<0.040	<0.040

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_MW_11 liver*	KL-01_gn_20230921_MW_11 muscle*	KL-01_gn_20230921_MW_11 carcass*	KL-01_gn_20230922_MW_2 liver*	KL-01_gn_20230922_MW_2 muscle*
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-086	VA23C2951-087	VA23C2951-088	VA23C2951-089	VA23C2951-090
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		13700	----	----	----	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		----	10600	18400	24200	10400
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		3220	----	----	----	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		----	2430	4720	5320	2610
Potassium	7440-09-7	E472/VA	20	mg/kg		13700	----	----	----	----
Potassium	7440-09-7	E440/VA	20	mg/kg		----	19100	14300	21400	16800
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		3220	----	----	----	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		----	4380	3660	4720	4190
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		5.62	----	----	----	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		----	5.64	4.55	18.6	7.82
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		1.32	----	----	----	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		----	1.29	1.16	4.10	1.95
Selenium	7782-49-2	E440/VA	0.050	mg/kg		----	0.346	0.418	1.13	0.302
Selenium	7782-49-2	E472/VA	0.10	mg/kg		1.24	----	----	----	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		----	0.079	0.107	0.250	0.075
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		0.290	----	----	----	----
Sodium	7440-23-5	E472/VA	20	mg/kg		4370	----	----	----	----
Sodium	7440-23-5	E440/VA	20	mg/kg		----	1820	2930	4400	1600
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		1030	----	----	----	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		----	417	748	968	399
Strontium	7440-24-6	E440/VA	0.050	mg/kg		----	0.388	12.6	0.419	1.10
Strontium	7440-24-6	E472/VA	0.10	mg/kg		0.39	----	----	----	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		----	0.089	3.23	0.092	0.274
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		0.091	----	----	----	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		<0.020	----	----	----	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		----	<0.020	<0.020	<0.020	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		<0.0040	----	----	----	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	<0.0040	<0.0040	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		<0.0020	----	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_MW_11 liver*	KL-01_gn_20230921_MW_11 muscle*	KL-01_gn_20230921_MW_11 carcass*	KL-01_gn_20230922_MW_2 liver*	KL-01_gn_20230922_MW_2 muscle*
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-086	VA23C2951-087	VA23C2951-088	VA23C2951-089	VA23C2951-090
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		----	<0.0020	<0.0020	0.0042	<0.0020
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		<0.00040	----	----	----	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		----	<0.00040	<0.00040	0.00092	<0.00040
Tin	7440-31-5	E472/VA	0.10	mg/kg		<0.10	----	----	----	----
Tin	7440-31-5	E440/VA	0.10	mg/kg		----	0.18	<0.10	<0.10	<0.10
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		<0.020	----	----	----	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		----	0.041	<0.020	<0.020	<0.020
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		<0.0020	----	----	----	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		----	<0.0020	<0.0020	<0.0020	<0.0020
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		<0.00040	----	----	----	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		----	<0.00040	<0.00040	<0.00040	<0.00040
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		<0.10	----	----	----	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		----	<0.10	<0.10	<0.10	<0.10
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		<0.020	----	----	----	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		----	<0.020	<0.020	<0.020	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg		----	16.3	63.7	83.9	18.8
Zinc	7440-66-6	E472/VA	1.0	mg/kg		110	----	----	----	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		----	3.73	16.3	18.5	4.70
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		25.8	----	----	----	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		<0.20	----	----	----	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		----	<0.20	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	----	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		----	<0.040	<0.040	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230922_MW_2 carcass*	KL-01_gn_20230922_MW_3 liver*	KL-01_gn_20230922_MW_3 muscle*	KL-01_gn_20230922_MW_3 carcass*	KL-01_gn_20230922_MW_4 liver*
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-091	VA23C2951-092	VA23C2951-093	VA23C2951-094	VA23C2951-095
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		71.0	----	73.5	67.8	----
Moisture	----	E144-H/VA	2.0	%		----	72.1	----	----	74.7
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		5.2	----	<2.0	2.4	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	<5.0	----	----	<5.0
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		1.52	----	<0.40	0.79	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	<1.0	----	----	<1.0
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	<0.010	----	----	<0.010
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	<0.0020
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.067	----	0.060	0.068	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	0.046	----	----	<0.030
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0194	----	0.0160	0.0219	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	0.0129	----	----	0.0066
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	0.329	----	----	0.276
Barium	7440-39-3	E440/VA	0.050	mg/kg		1.62	----	0.085	0.862	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	0.092	----	----	0.070
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		0.471	----	0.022	0.278	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	<0.010	----	----	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	<0.0020
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	<0.010	----	----	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	<0.0020
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	<1.0	----	----	<1.0
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	----	<1.0	<1.0	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230922_MW_2 carcass*	KL-01_gn_20230922_MW_3 liver*	KL-01_gn_20230922_MW_3 muscle*	KL-01_gn_20230922_MW_3 carcass*	KL-01_gn_20230922_MW_4 liver*
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-091	VA23C2951-092	VA23C2951-093	VA23C2951-094	VA23C2951-095
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	<0.20	----	----	<0.20
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	----	<0.20	<0.20	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		<0.0050	----	<0.0050	<0.0050	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	<0.010	----	----	<0.010
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		<0.0010	----	<0.0010	<0.0010	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	0.0021	----	----	<0.0020
Calcium	7440-70-2	E472/VA	20	mg/kg		----	259	----	----	420
Calcium	7440-70-2	E440/VA	20	mg/kg		20900	----	514	24100	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	72.2	----	----	106
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		6060	----	136	7760	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	0.0070	----	----	0.0072
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0178	----	0.0125	0.0076	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	0.0019	----	----	0.0018
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0052	----	0.0033	0.0024	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		<0.050	----	<0.050	<0.050	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	<0.20	----	----	<0.20
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		<0.010	----	<0.010	<0.010	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	<0.040
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	0.054	----	----	0.061
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.037	----	<0.020	<0.020	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	0.0149	----	----	0.0154
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0108	----	<0.0040	0.0056	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		1.87	----	0.81	1.62	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	4.30	----	----	4.95
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.543	----	0.214	0.521	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	1.20	----	----	1.25
Iron	7439-89-6	E440/VA	3.0	mg/kg		59.1	----	9.6	45.3	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	81.7	----	----	146
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		17.1	----	2.54	14.6	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230922_MW_2 carcass*	KL-01_gn_20230922_MW_3 liver*	KL-01_gn_20230922_MW_3 muscle*	KL-01_gn_20230922_MW_3 carcass*	KL-01_gn_20230922_MW_4 liver*
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-091	VA23C2951-092	VA23C2951-093	VA23C2951-094	VA23C2951-095
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	22.8	----	----	36.8
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.028	----	<0.020	0.156	----
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	<0.050	----	----	<0.050
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0083	----	0.0051	0.0502	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	<0.010	----	----	<0.010
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	<0.50	----	----	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	----	<0.50	<0.50	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	<0.10	----	----	<0.10
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	----	<0.10	<0.10	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	915	----	----	1110
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1380	----	1170	1400	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	255	----	----	280
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		402	----	310	452	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	11.5	----	----	10.6
Manganese	7439-96-5	E440/VA	0.050	mg/kg		22.4	----	0.568	25.2	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	3.22	----	----	2.68
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		6.49	----	0.150	8.10	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	0.0827	----	----	0.0618
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0728	----	0.0424	0.0365	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	0.0231	----	----	0.0156
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0211	----	0.0112	0.0117	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.044	----	<0.020	0.029	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	0.228	----	----	0.383
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0126	----	<0.0040	0.0092	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	0.0637	----	----	0.0968
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	<0.20	----	----	<0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	----	<0.20	<0.20	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	<0.040
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	<0.040	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230922_MW_2 carcass*	KL-01_gn_20230922_MW_3 liver*	KL-01_gn_20230922_MW_3 muscle*	KL-01_gn_20230922_MW_3 carcass*	KL-01_gn_20230922_MW_4 liver*
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-091	VA23C2951-092	VA23C2951-093	VA23C2951-094	VA23C2951-095
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	15600	----	----	18200
Phosphorus	7723-14-0	E440/VA	10	mg/kg		22600	----	10200	23400	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	4360	----	----	4610
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		6580	----	2700	7530	----
Potassium	7440-09-7	E472/VA	20	mg/kg		----	13300	----	----	14400
Potassium	7440-09-7	E440/VA	20	mg/kg		11600	----	16600	10700	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	3700	----	----	3630
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3360	----	4390	3450	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	10.4	----	----	7.85
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		6.02	----	6.71	4.92	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	2.89	----	----	1.98
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		1.75	----	1.78	1.58	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.398	----	0.156	0.225	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	0.70	----	----	0.76
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.116	----	0.041	0.072	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	0.196	----	----	0.194
Sodium	7440-23-5	E472/VA	20	mg/kg		----	3140	----	----	4640
Sodium	7440-23-5	E440/VA	20	mg/kg		3210	----	1260	2310	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	875	----	----	1170
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		931	----	332	743	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		18.9	----	0.247	20.5	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	0.20	----	----	0.45
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		5.48	----	0.065	6.61	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	0.055	----	----	0.114
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	<0.020	----	----	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	----	<0.020	<0.020	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	<0.0040	----	----	<0.0040
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	----	<0.0040	<0.0040	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	0.0071	----	----	<0.0020

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230922_MW_2 carcass*	KL-01_gn_20230922_MW_3 liver*	KL-01_gn_20230922_MW_3 muscle*	KL-01_gn_20230922_MW_3 carcass*	KL-01_gn_20230922_MW_4 liver*
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-091	VA23C2951-092	VA23C2951-093	VA23C2951-094	VA23C2951-095
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0021	----	<0.0020	0.0028	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	0.00198	----	----	0.00044
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00062	----	0.00051	0.00092	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	<0.10	----	----	<0.10
Tin	7440-31-5	E440/VA	0.10	mg/kg		<0.10	----	<0.10	<0.10	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	<0.020	----	----	<0.020
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		<0.020	----	0.026	<0.020	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	<0.0020	----	----	<0.0020
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0023	----	<0.0020	<0.0020	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	<0.00040	----	----	<0.00040
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.00067	----	<0.00040	<0.00040	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	<0.10	----	----	<0.10
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	----	<0.10	<0.10	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	<0.020	----	----	<0.020
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.023	----	<0.020	<0.020	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		71.8	----	13.8	83.6	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	120	----	----	127
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		20.8	----	3.65	26.9	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	33.4	----	----	32.0
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	<0.20	----	----	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	----	<0.20	<0.20	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	<0.040
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	<0.040	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230922_MW_4 muscle*	KL-01_gn_20230922_MW_4 carcass*	KL-01_gn_20230922_MW_5 liver*	KL-01_gn_20230922_MW_5 muscle*	KL-01_gn_20230922_MW_5 carcass*
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-096	VA23C2951-097	VA23C2951-098	VA23C2951-099	VA23C2951-100
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		76.3	68.7	----	75.8	71.4
Moisture	----	E144-H/VA	2.0	%		----	----	73.2	----	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		<2.0	6.7	----	<2.0	2.8
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	<5.0	----	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		<0.40	2.09	----	<0.40	0.80
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	<1.0	----	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	<0.010
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.066	0.054	----	0.114	0.102
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	0.092	----	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0156	0.0168	----	0.0276	0.0291
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	0.0246	----	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	0.517	----	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		<0.050	0.717	----	<0.050	0.250
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	0.138	----	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		<0.010	0.224	----	<0.010	0.071
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	<0.0020
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	<1.0	----	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	<1.0	----	<1.0	<1.0

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230922_MW_4 muscle*	KL-01_gn_20230922_MW_4 carcass*	KL-01_gn_20230922_MW_5 liver*	KL-01_gn_20230922_MW_5 muscle*	KL-01_gn_20230922_MW_5 carcass*
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-096	VA23C2951-097	VA23C2951-098	VA23C2951-099	VA23C2951-100
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	<0.20	----	----
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	<0.20	----	<0.20	<0.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		<0.0050	<0.0050	----	<0.0050	<0.0050
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	0.013	----	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		<0.0010	<0.0010	----	<0.0010	<0.0010
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	0.0036	----	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	437	----	----
Calcium	7440-70-2	E440/VA	20	mg/kg		836	23700	----	1060	9250
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	117	----	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		198	7400	----	258	2650
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	0.0076	----	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0137	0.0075	----	0.0103	0.0068
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	0.0020	----	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0032	0.0023	----	0.0025	0.0019
Chromium	7440-47-3	E440/VA	0.050	mg/kg		<0.050	<0.050	----	<0.050	<0.050
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		<0.010	<0.010	----	<0.010	<0.010
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	0.065	----	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		<0.020	0.033	----	<0.020	<0.020
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	0.0174	----	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0103	----	<0.0040	0.0042
Copper	7440-50-8	E440/VA	0.10	mg/kg		1.54	1.72	----	1.09	1.54
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	5.28	----	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.365	0.537	----	0.264	0.440
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	1.41	----	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		18.8	60.9	----	11.4	32.0
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	95.6	----	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		4.45	19.0	----	2.76	9.15

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230922_MW_4 muscle*	KL-01_gn_20230922_MW_4 carcass*	KL-01_gn_20230922_MW_5 liver*	KL-01_gn_20230922_MW_5 muscle*	KL-01_gn_20230922_MW_5 carcass*
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-096	VA23C2951-097	VA23C2951-098	VA23C2951-099	VA23C2951-100
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	25.6	----	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	0.053	----	<0.020	0.034
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	<0.050	----	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0165	----	<0.0040	0.0097
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	<0.010	----	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	<0.50	----	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	----	<0.50	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	<0.10	----	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	----	<0.10	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	978	----	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1240	1300	----	1230	1020
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	261	----	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		294	405	----	297	291
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	10.7	----	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		0.731	18.8	----	0.789	3.46
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	2.87	----	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		0.173	5.87	----	0.191	0.992
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	0.237	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0404	0.0325	----	0.141	0.105
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	0.0634	----	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0096	0.0102	----	0.0341	0.0301
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		<0.020	0.036	----	<0.020	<0.020
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	0.456	----	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0112	----	<0.0040	0.0043
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	0.122	----	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	----	<0.20	<0.20
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	<0.040	<0.040

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230922_MW_4 muscle*	KL-01_gn_20230922_MW_4 carcass*	KL-01_gn_20230922_MW_5 liver*	KL-01_gn_20230922_MW_5 muscle*	KL-01_gn_20230922_MW_5 carcass*
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-096	VA23C2951-097	VA23C2951-098	VA23C2951-099	VA23C2951-100
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	15500	----	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		10700	23500	----	11100	17200
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	4140	----	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		2540	7350	----	2680	4920
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	16600	----	----
Potassium	7440-09-7	E440/VA	20	mg/kg		17700	10500	----	18500	13400
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	4440	----	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		4200	3290	----	4470	3830
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	7.79	----	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		6.25	3.90	----	6.66	5.10
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	2.08	----	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		1.48	1.22	----	1.61	1.46
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.205	0.317	----	0.289	0.288
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	1.17	----	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.049	0.099	----	0.070	0.082
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	0.313	----	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	4460	----	----
Sodium	7440-23-5	E440/VA	20	mg/kg		1930	2900	----	1630	2520
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	1190	----	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		459	908	----	394	722
Strontium	7440-24-6	E440/VA	0.050	mg/kg		0.506	20.2	----	0.743	8.33
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	0.34	----	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		0.120	6.33	----	0.180	2.38
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	0.090	----	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	<0.020	----	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	----	<0.020	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	<0.0040	----	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	----	<0.0040	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	0.0080	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230922_MW_4 muscle*	KL-01_gn_20230922_MW_4 carcass*	KL-01_gn_20230922_MW_5 liver*	KL-01_gn_20230922_MW_5 muscle*	KL-01_gn_20230922_MW_5 carcass*
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-096	VA23C2951-097	VA23C2951-098	VA23C2951-099	VA23C2951-100
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	----	<0.0020	<0.0020
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	----	0.00215	----	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		<0.00040	<0.00040	----	<0.00040	<0.00040
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	<0.10	----	----
Tin	7440-31-5	E440/VA	0.10	mg/kg		<0.10	<0.10	----	0.14	<0.10
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	<0.020	----	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		<0.020	<0.020	----	0.035	<0.020
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	<0.0020	----	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	----	<0.0020	<0.0020
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	<0.00040	----	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	0.00052	----	<0.00040	<0.00040
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	<0.10	----	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	<0.10	----	<0.10	<0.10
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	<0.020	----	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	<0.020	----	<0.020	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg		16.6	81.4	----	15.9	45.7
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	111	----	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		3.93	25.4	----	3.84	13.1
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	29.6	----	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	----	<0.20	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TC-05 ef 22230911 RB_1	TC-05 ef 22230911 RB_2	TC-05 ef 22230911 RB _3	TC-05 ef 22230911 RB _4	TC-05 ef 22230911 RB _5
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-101	VA23C2951-102	VA23C2951-103	VA23C2951-104	VA23C2951-105
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		72.7	75.9	73.8	73.2	----
Moisture	----	E144-H/VA	2.0	%		----	----	----	----	70.6
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		19.8	29.9	36.9	19.9	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	----	----	31.3
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		5.40	7.20	9.68	5.33	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	----	----	9.2
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	----	----	<0.010
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	----	----	<0.0020
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.348	0.219	0.250	0.165	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	----	----	0.288
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0951	0.0530	0.0656	0.0441	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	----	----	0.0848
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	----	----	7.16
Barium	7440-39-3	E440/VA	0.050	mg/kg		6.11	5.84	7.03	4.27	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	----	----	2.10
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		1.67	1.41	1.85	1.14	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	----	----	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	----	----	<0.0020
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	----	----	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	----	----	<0.0020
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	----	----	2.5
Boron	7440-42-8	E440/VA	1.0	mg/kg		2.0	<1.0	3.0	1.4	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TC-05 ef 22230911 RB_1	TC-05 ef 22230911 RB_2	TC-05 ef 22230911 RB _3	TC-05 ef 22230911 RB _4	TC-05 ef 22230911 RB _5
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-101	VA23C2951-102	VA23C2951-103	VA23C2951-104	VA23C2951-105
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	----	----	0.74
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		0.55	<0.20	0.80	0.36	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0164	0.0142	0.0172	0.0138	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	----	----	0.022
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0045	0.0034	0.0045	0.0037	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	----	----	0.0064
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	----	----	17900
Calcium	7440-70-2	E440/VA	20	mg/kg		24600	32000	29400	20800	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	----	----	5280
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		6720	7720	7720	5560	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	----	----	0.0128
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0197	0.0381	0.0210	0.0202	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	----	----	0.0038
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0054	0.0092	0.0055	0.0054	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.073	0.067	0.073	0.082	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	----	----	<0.20
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.020	0.016	0.019	0.022	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	----	----	<0.040
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	----	----	0.080
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.107	0.079	0.060	0.039	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	----	----	0.0236
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0292	0.0192	0.0157	0.0104	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		3.07	7.84	2.99	3.48	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	----	----	2.40
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.837	1.89	0.785	0.931	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	----	----	0.707
Iron	7439-89-6	E440/VA	3.0	mg/kg		218	111	124	91.0	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	----	----	84.7
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		59.6	26.7	32.6	24.3	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TC-05 ef 22230911 RB_1	TC-05 ef 22230911 RB_2	TC-05 ef 22230911 RB _3	TC-05 ef 22230911 RB _4	TC-05 ef 22230911 RB _5
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-101	VA23C2951-102	VA23C2951-103	VA23C2951-104	VA23C2951-105
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	----	----	24.9
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	----
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	----	----	<0.050
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	0.0041	<0.0040	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	----	----	<0.010
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	----	----	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	----	----	<0.10
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	<0.10	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	----	----	1200
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1190	1460	1440	1100	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	----	----	353
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		326	352	378	294	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	----	----	32.7
Manganese	7439-96-5	E440/VA	0.050	mg/kg		18.5	14.8	30.3	10.3	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	----	----	9.61
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		5.04	3.58	7.95	2.75	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	----	----	0.240
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.319	0.973	0.371	0.314	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	----	----	0.0705
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0870	0.235	0.0975	0.0839	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.085	0.068	0.085	0.059	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	----	----	0.104
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0232	0.0163	0.0224	0.0158	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	----	----	0.0304
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	----	----	<0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	----	----	<0.040
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	<0.040	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TC-05 ef 22230911 RB_1	TC-05 ef 22230911 RB_2	TC-05 ef 22230911 RB _3	TC-05 ef 22230911 RB _4	TC-05 ef 22230911 RB _5
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-101	VA23C2951-102	VA23C2951-103	VA23C2951-104	VA23C2951-105
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	----	----	18500
Phosphorus	7723-14-0	E440/VA	10	mg/kg		22400	28300	25400	19000	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	----	----	5450
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		6120	6830	6670	5090	----
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	----	----	12800
Potassium	7440-09-7	E440/VA	20	mg/kg		13200	14700	13100	11400	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	----	----	3770
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3590	3560	3440	3040	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	----	----	6.69
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		10.0	15.2	6.42	7.69	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	----	----	1.96
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		2.73	3.66	1.68	2.06	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		1.76	2.01	2.09	1.73	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	----	----	2.06
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.479	0.486	0.549	0.462	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	----	----	0.607
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	----	----	3130
Sodium	7440-23-5	E440/VA	20	mg/kg		3350	4410	3460	3050	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	----	----	920
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		914	1060	909	816	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		26.8	50.7	23.4	25.8	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	----	----	15.6
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		7.31	12.2	6.15	6.90	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	----	----	4.58
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	----	----	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	----	----	<0.0040
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	<0.0040	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	----	----	0.0105

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TC-05 ef 22230911 RB_1	TC-05 ef 22230911 RB_2	TC-05 ef 22230911 RB _3	TC-05 ef 22230911 RB _4	TC-05 ef 22230911 RB _5
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-101	VA23C2951-102	VA23C2951-103	VA23C2951-104	VA23C2951-105
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0144	0.0242	0.0089	0.0134	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	----	----	----	0.00309
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00394	0.00585	0.00234	0.00359	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	----	----	0.70
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.21	0.30	0.50	0.36	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	----	----	0.207
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.057	0.072	0.130	0.097	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	----	----	0.0086
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0068	0.0097	0.0109	0.0064	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	----	----	0.00252
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.00187	0.00235	0.00287	0.00171	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	----	----	0.21
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		0.16	0.23	0.19	<0.10	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	----	----	0.062
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.045	0.056	0.051	0.025	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		110	126	150	106	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	----	----	80.5
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		30.2	30.3	39.3	28.4	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	----	----	23.7
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	----	----	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	----	----	<0.040
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	<0.040	<0.040	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TC-05 ef 22230911 RB _6	TC-05 mt 22230913 RB _1	TC-05 mt 22230913 RB _2	KL-01_an_20230921_RB_1 liver*	KL-01_an_20230921_RB_1 muscle*
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-106	VA23C2951-107	VA23C2951-108	VA23C2951-109	VA23C2951-110
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		73.5	75.6	----	----	73.9
Moisture	----	E144-H/VA	2.0	%		----	----	69.9	67.3	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		31.7	21.0	----	----	<2.0
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	332	<5.0	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		8.40	5.12	----	----	<0.40
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	99.7	<1.0	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	<0.010	<0.010	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	----	----	<0.010
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	0.0024	<0.0020	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	----	<0.0020
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.203	0.217	----	----	0.099
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	0.483	0.195	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0539	0.0529	----	----	0.0258
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	0.145	0.0639	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	11.3	0.300	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		4.74	3.68	----	----	<0.050
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	3.39	0.098	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		1.26	0.898	----	----	<0.010
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	<0.010	<0.010	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	----	----	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	0.0027	<0.0020	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	----	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	<0.010	<0.010	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	----	----	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	<0.0020	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	----	<0.0020
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	2.9	<1.0	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	<1.0	----	----	<1.0

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TC-05 ef 22230911 RB _6	TC-05 mt 22230913 RB _1	TC-05 mt 22230913 RB _2	KL-01_an_20230921_RB_1 liver*	KL-01_an_20230921_RB_1 muscle*
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-106	VA23C2951-107	VA23C2951-108	VA23C2951-109	VA23C2951-110
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	0.86	<0.20	----
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		0.21	<0.20	----	----	<0.20
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0115	0.0126	----	----	<0.0050
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	0.020	0.020	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0030	0.0031	----	----	<0.0010
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	0.0060	0.0066	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	23200	760	----
Calcium	7440-70-2	E440/VA	20	mg/kg		22000	20900	----	----	614
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	6980	249	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		5830	5080	----	----	160
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	0.0443	<0.0050	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0275	0.0302	----	----	0.0064
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	0.0133	0.0015	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0073	0.0073	----	----	0.0017
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.110	0.076	----	----	<0.050
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	0.43	<0.20	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.029	0.018	----	----	<0.010
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	0.130	<0.040	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	0.128	0.044	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.073	0.039	----	----	<0.020
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	0.0385	0.0143	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0194	0.0096	----	----	<0.0040
Copper	7440-50-8	E440/VA	0.10	mg/kg		3.73	7.19	----	----	1.11
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	2.52	142	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.988	1.75	----	----	0.290
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	0.759	46.4	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		109	57.1	----	----	13.2
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	421	619	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		28.8	13.9	----	----	3.45

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TC-05 ef 22230911 RB _6	TC-05 mt 22230913 RB _1	TC-05 mt 22230913 RB _2	KL-01_an_20230921_RB_1 liver*	KL-01_an_20230921_RB_1 muscle*
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-106	VA23C2951-107	VA23C2951-108	VA23C2951-109	VA23C2951-110
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	127	203	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	<0.020	----	----	<0.020
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	0.089	<0.050	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	----	----	<0.0040
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	0.027	<0.010	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	<0.50	<0.50	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	----	----	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	<0.10	<0.10	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	----	----	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	1420	804	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1160	1340	----	----	1030
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	428	263	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		309	327	----	----	270
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	38.1	8.83	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		16.0	10.6	----	----	0.357
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	11.4	2.89	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		4.24	2.58	----	----	0.093
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	0.177	0.194	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.497	0.593	----	----	0.263
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	0.0531	0.0634	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.132	0.144	----	----	0.0686
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.059	0.064	----	----	<0.020
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	0.118	0.665	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0157	0.0155	----	----	<0.0040
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	0.0355	0.218	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	0.33	<0.20	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	----	----	<0.20
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	0.098	<0.040	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	----	<0.040

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TC-05 ef 22230911 RB _6	TC-05 mt 22230913 RB _1	TC-05 mt 22230913 RB _2	KL-01_an_20230921_RB_1 liver*	KL-01_an_20230921_RB_1 muscle*
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-106	VA23C2951-107	VA23C2951-108	VA23C2951-109	VA23C2951-110
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	21400	13300	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		21300	20400	----	----	9780
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	6440	4350	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		5640	4970	----	----	2550
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	12300	10300	----
Potassium	7440-09-7	E440/VA	20	mg/kg		12800	15200	----	----	14600
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	3690	3380	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3410	3690	----	----	3820
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	7.99	5.07	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		13.4	16.3	----	----	5.05
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	2.40	1.66	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		3.54	3.98	----	----	1.32
Selenium	7782-49-2	E440/VA	0.050	mg/kg		1.55	1.73	----	----	0.285
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	1.91	11.0	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.412	0.422	----	----	0.074
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	0.575	3.60	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	3420	3510	----
Sodium	7440-23-5	E440/VA	20	mg/kg		3290	3380	----	----	1710
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	1030	1150	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		871	824	----	----	446
Strontium	7440-24-6	E440/VA	0.050	mg/kg		34.2	29.9	----	----	0.528
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	23.4	1.38	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		9.08	7.29	----	----	0.138
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	7.02	0.452	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	<0.020	<0.020	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	----	----	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	<0.0040	<0.0040	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	----	----	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	0.0155	0.0087	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	TC-05 ef 22230911 RB _6	TC-05 mt 22230913 RB _1	TC-05 mt 22230913 RB _2	KL-01_an_20230921_RB_1 liver*	KL-01_an_20230921_RB_1 muscle*
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-106	VA23C2951-107	VA23C2951-108	VA23C2951-109	VA23C2951-110
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0215	0.0241	----	----	<0.0020
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	----	0.00466	0.00284	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00571	0.00587	----	----	<0.00040
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	0.54	<0.10	----
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.68	0.14	----	----	0.13
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	0.161	<0.020	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.182	0.034	----	----	0.033
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	0.0298	<0.0020	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0111	0.0071	----	----	<0.0020
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	0.00895	<0.00040	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.00295	0.00174	----	----	<0.00040
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	0.68	<0.10	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		0.18	<0.10	----	----	<0.10
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	0.203	<0.020	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.048	<0.020	----	----	<0.020
Zinc	7440-66-6	E440/VA	0.50	mg/kg		113	111	----	----	18.2
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	111	140	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		30.0	27.1	----	----	4.75
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	33.3	45.9	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	0.26	<0.20	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	----	----	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	0.079	<0.040	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	----	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_an_20230921_RB_1 carcass*	KL-01_an_20230921_RB_3 liver*	KL-01_an_20230921_RB_3 muscle*	KL-01_an_20230921_RB_3 carcass*	KL-01_gn_20230921_RB_3 liver*
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-111	VA23C2951-112	VA23C2951-113	VA23C2951-114	VA23C2951-115
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		71.0	----	74.4	69.7	----
Moisture	----	E144-H/VA	2.0	%		----	71.9	----	----	71.9
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		<2.0	----	<2.0	5.5	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	<5.0	----	----	<5.0
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		<0.40	----	<0.40	1.66	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	<1.0	----	----	<1.0
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	<0.010	----	----	<0.010
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	<0.0020
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.181	----	0.085	0.168	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	0.238	----	----	0.080
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0525	----	0.0218	0.0508	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	0.0669	----	----	0.0225
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	0.268	----	----	0.493
Barium	7440-39-3	E440/VA	0.050	mg/kg		0.765	----	<0.050	0.518	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	0.075	----	----	0.139
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		0.222	----	0.010	0.157	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	<0.010	----	----	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	<0.0020
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	<0.010	----	----	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	<0.0020
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	<1.0	----	----	<1.0
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	----	<1.0	<1.0	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_an_20230921_RB_1 carcass*	KL-01_an_20230921_RB_3 liver*	KL-01_an_20230921_RB_3 muscle*	KL-01_an_20230921_RB_3 carcass*	KL-01_gn_20230921_RB_3 liver*
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-111	VA23C2951-112	VA23C2951-113	VA23C2951-114	VA23C2951-115
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	<0.20	----	----	<0.20
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	----	<0.20	<0.20	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0122	----	<0.0050	<0.0050	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	0.016	----	----	0.033
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0036	----	<0.0010	0.0013	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	0.0045	----	----	0.0094
Calcium	7440-70-2	E472/VA	20	mg/kg		----	472	----	----	587
Calcium	7440-70-2	E440/VA	20	mg/kg		10300	----	676	8460	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	133	----	----	165
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		2990	----	173	2560	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	<0.0050	----	----	0.0059
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0050	----	0.0077	0.0051	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	0.0013	----	----	0.0017
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0014	----	0.0020	0.0015	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		<0.050	----	<0.050	<0.050	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	<0.20	----	----	<0.20
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		<0.010	----	<0.010	0.014	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	<0.040
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	0.047	----	----	0.044
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.039	----	<0.020	0.037	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	0.0133	----	----	0.0123
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0113	----	<0.0040	0.0112	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		2.75	----	0.81	1.83	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	474	----	----	371
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.800	----	0.208	0.555	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	133	----	----	104
Iron	7439-89-6	E440/VA	3.0	mg/kg		49.8	----	16.7	69.2	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	1610	----	----	893
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		14.4	----	4.29	21.0	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_an_20230921_RB_1 carcass*	KL-01_an_20230921_RB_3 liver*	KL-01_an_20230921_RB_3 muscle*	KL-01_an_20230921_RB_3 carcass*	KL-01_gn_20230921_RB_3 liver*
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-111	VA23C2951-112	VA23C2951-113	VA23C2951-114	VA23C2951-115
						Result	Result	Result	Result	Result
Metals										
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	453	----	----	251
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	----	<0.020	<0.020	----
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	<0.050	----	----	<0.050
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		<0.0040	----	<0.0040	0.0044	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	<0.010	----	----	<0.010
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	<0.50	----	----	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	----	<0.50	<0.50	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	<0.10	----	----	<0.10
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	----	<0.10	<0.10	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	704	----	----	748
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1040	----	1150	922	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	198	----	----	210
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		302	----	295	280	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	6.18	----	----	5.70
Manganese	7439-96-5	E440/VA	0.050	mg/kg		11.6	----	0.426	5.92	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	1.74	----	----	1.60
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		3.36	----	0.109	1.80	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	0.300	----	----	0.190
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.191	----	0.332	0.224	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	0.0844	----	----	0.0536
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0554	----	0.0851	0.0680	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.030	----	<0.020	0.024	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	0.966	----	----	0.873
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0087	----	<0.0040	0.0073	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	0.271	----	----	0.246
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	<0.20	----	----	<0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	----	<0.20	<0.20	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	<0.040
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	<0.040	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_an_20230921_RB_1 carcass*	KL-01_an_20230921_RB_3 liver*	KL-01_an_20230921_RB_3 muscle*	KL-01_an_20230921_RB_3 carcass*	KL-01_gn_20230921_RB_3 liver*
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-111	VA23C2951-112	VA23C2951-113	VA23C2951-114	VA23C2951-115
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	13200	----	----	11900
Phosphorus	7723-14-0	E440/VA	10	mg/kg		13600	----	10500	13100	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	3700	----	----	3350
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		3950	----	2700	3980	----
Potassium	7440-09-7	E472/VA	20	mg/kg		----	11300	----	----	11500
Potassium	7440-09-7	E440/VA	20	mg/kg		11000	----	15500	10100	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	3180	----	----	3240
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3200	----	3980	3070	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	4.93	----	----	3.42
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		4.20	----	4.74	3.57	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	1.39	----	----	0.963
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		1.22	----	1.21	1.08	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.500	----	0.319	0.459	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	45.8	----	----	21.8
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.145	----	0.082	0.139	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	12.9	----	----	6.14
Sodium	7440-23-5	E472/VA	20	mg/kg		----	4280	----	----	4480
Sodium	7440-23-5	E440/VA	20	mg/kg		2560	----	1760	2840	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	1200	----	----	1260
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		745	----	451	860	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		12.7	----	0.475	8.58	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	1.10	----	----	0.71
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		3.68	----	0.122	2.60	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	0.310	----	----	0.200
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	<0.020	----	----	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	----	<0.020	<0.020	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	<0.0040	----	----	<0.0040
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	----	<0.0040	<0.0040	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	0.0133	----	----	0.0095

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_an_20230921_RB_1 carcass*	KL-01_an_20230921_RB_3 liver*	KL-01_an_20230921_RB_3 muscle*	KL-01_an_20230921_RB_3 carcass*	KL-01_gn_20230921_RB_3 liver*
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C2951-111	VA23C2951-112	VA23C2951-113	VA23C2951-114	VA23C2951-115
						Result	Result	Result	Result	Result
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		<0.0020	----	<0.0020	0.0021	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	0.00375	----	----	0.00267
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		<0.00040	----	<0.00040	0.00064	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	<0.10	----	----	<0.10
Tin	7440-31-5	E440/VA	0.10	mg/kg		<0.10	----	0.15	<0.10	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	<0.020	----	----	<0.020
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		<0.020	----	0.039	<0.020	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	<0.0020	----	----	<0.0020
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	----	<0.0020	<0.0020	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	<0.00040	----	----	<0.00040
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	----	<0.00040	<0.00040	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	0.13	----	----	<0.10
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	----	<0.10	<0.10	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	0.037	----	----	<0.020
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	----	<0.020	<0.020	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		104	----	13.0	97.4	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	159	----	----	301
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		30.4	----	3.34	29.5	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	44.7	----	----	84.7
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	<0.20	----	----	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	----	<0.20	<0.20	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	<0.040
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	<0.040	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_RB_3 muscle*	KL-01_gn_20230921_RB_3 carcass*	----	----	----
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	----	----	----
						VA23C2951-116	VA23C2951-117	--------	--------	--------
						Result	Result	----	----	----
Physical Tests										
Moisture	----	E144/VA	0.50	%		72.4	68.5	----	----	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		<2.0	<2.0	----	----	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		<0.40	0.45	----	----	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	----	----	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	----	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.052	0.062	----	----	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0143	0.0196	----	----	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		0.104	0.701	----	----	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		0.028	0.220	----	----	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	----	----	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	----	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	----	----	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	----	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	<1.0	----	----	----
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	<0.20	----	----	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		<0.0050	<0.0050	----	----	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		<0.0010	<0.0010	----	----	----
Calcium	7440-70-2	E440/VA	20	mg/kg		519	23800	----	----	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		143	7490	----	----	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0075	<0.0050	----	----	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0021	0.0015	----	----	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		<0.050	<0.050	----	----	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		<0.010	<0.010	----	----	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		<0.020	0.021	----	----	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0066	----	----	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		0.72	3.20	----	----	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		0.197	1.01	----	----	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		12.8	62.1	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	KL-01_gn_20230921_RB_3 muscle*	KL-01_gn_20230921_RB_3 carcass*	----	----	----
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	----	----	----
						VA23C2951-116	VA23C2951-117	--------	--------	--------
						Result	Result	----	----	----
Metals										
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		3.53	19.5	----	----	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	0.028	----	----	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0088	----	----	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	----	----	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	----	----	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1000	1110	----	----	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		276	350	----	----	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		0.319	6.68	----	----	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		0.088	2.10	----	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.174	0.105	----	----	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0481	0.0332	----	----	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		<0.020	0.027	----	----	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0085	----	----	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	<0.20	----	----	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	----	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		9390	20600	----	----	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		2590	6500	----	----	----
Potassium	7440-09-7	E440/VA	20	mg/kg		15200	9820	----	----	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		4190	3090	----	----	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		3.85	2.64	----	----	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		1.06	0.830	----	----	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.267	0.485	----	----	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.074	0.153	----	----	----
Sodium	7440-23-5	E440/VA	20	mg/kg		1310	3060	----	----	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		361	964	----	----	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		0.308	21.4	----	----	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		0.085	6.74	----	----	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	----	----	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	----	----	----

Analytical Results

Sub-Matrix: Tissue (Matrix: Biota)					Client sample ID	KL-01_gn_20230921_RB_3 muscle*	KL-01_gn_20230921_RB_3 carcass*	----	----	----
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA23C2951-116	VA23C2951-117	--------	--------	--------
						Result	Result	----	----	----
Metals										
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	----	----	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		<0.00040	<0.00040	----	----	----
Tin	7440-31-5	E440/VA	0.10	mg/kg		<0.10	<0.10	----	----	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.023	<0.020	----	----	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	----	----	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	<0.00040	----	----	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	<0.10	----	----	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	<0.020	----	----	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		14.7	224	----	----	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		4.05	70.4	----	----	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	----	----	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	----	----

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

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

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **VA23C2951**	Page	: 1 of 63
Client	: Palmer Environmental Consulting Group Inc.	Laboratory	: ALS Environmental - Vancouver
Contact	: Accounts Payable	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: 2006506	Date Samples Received	: 26-Sep-2023 11:50
PO	: 15180	Date Analysis Commenced	: 10-Nov-2023
C-O-C number	: ----	Issue Date	: 27-Nov-2023 08:22
Sampler	: Marissa Heppner 647 795 8153		
Site	: ----		
Quote number	: VA23-BWGL100-002		
No. of samples received	: 108		
No. of samples analysed	: 102		

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*
Alex Thornton	Analyst	Vancouver Metals, Burnaby, British Columbia
Arshdeep Kaur	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia
Owen Cheng		Vancouver Metals, Burnaby, British Columbia
Ragini Saini	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Robert Nguyen	Analsyt	Vancouver Metals, Burnaby, British Columbia
Robin Weeks	Team Leader - Metals	Vancouver Metals, Burnaby, British Columbia
Russell Zhang		Vancouver Metals, Burnaby, British Columbia
Sam Silveira	Lab Assistant	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: **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: 1233611)											
VA23C2951-048	KL-01_gn_20230921_RB_2 muscle*	Moisture	----	E144	0.50	%	74.6	75.3	0.908%	20%	----
Physical Tests (QC Lot: 1233612)											
VA23C2951-087	KL-01_gn_20230921_MW_ 11 muscle*	Moisture	----	E144	0.50	%	77.1	77.0	0.116%	20%	----
Physical Tests (QC Lot: 1234243)											
VA23C2951-001	661-10_ef_20230901_RB_ 1	Moisture	----	E144	0.50	%	76.1	76.2	0.180%	20%	----
Physical Tests (QC Lot: 1234255)											
VA23C2951-027	TC-10_ef_20230913_RB_3	Moisture	----	E144	0.50	%	74.7	74.4	0.393%	20%	----
Physical Tests (QC Lot: 1235156)											
VA23C2951-049	KL-01_gn_20230921_RB_2 carcass*	Moisture	----	E144	0.50	%	69.1	69.3	0.318%	20%	----
Physical Tests (QC Lot: 1239277)											
VA23C2951-056	KL-01_gn_20230921_MW_ 8 liver*	Moisture	----	E144	0.50	%	78.5	78.6	0.133%	20%	----
Physical Tests (QC Lot: 1245182)											
VA23C2951-095	KL-01_gn_20230922_MW_ 4 liver*	Moisture	----	E144-H	2.0	%	74.7	74.9	0.182%	20%	----
Physical Tests (QC Lot: 1245195)											
VA23C2951-003	661-10_ef_20230901_RB_ 3	Moisture	----	E144-H	2.0	%	68.5	68.5	0.0555%	20%	----
Metals (QC Lot: 1233616)											
VA23C2951-048	KL-01_gn_20230921_RB_2 muscle*	Aluminum	7429-90-5	E440A	0.40	mg/kg wwt	<0.40	<0.40	0	Diff <2x LOR	----
		Antimony	7440-36-0	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440A	0.0040	mg/kg wwt	0.0200	0.0221	9.98%	40%	----
		Barium	7440-39-3	E440A	0.010	mg/kg wwt	0.010	<0.010	0.00009	Diff <2x LOR	----
		Beryllium	7440-41-7	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Boron	7440-42-8	E440A	0.20	mg/kg wwt	<0.20	<0.20	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440A	0.0010	mg/kg wwt	<0.0010	<0.0010	0	Diff <2x LOR	----
		Calcium	7440-70-2	E440A	4.0	mg/kg wwt	256	210	19.5%	60%	----
		Cesium	7440-46-2	E440A	0.0010	mg/kg wwt	0.0021	0.0020	0.00002	Diff <2x LOR	----
		Chromium	7440-47-3	E440A	0.010	mg/kg wwt	<0.010	<0.010	0	Diff <2x LOR	----

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: 1233616) - continued											
VA23C2951-048	KL-01_gn_20230921_RB_2 muscle*	Cobalt	7440-48-4	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Copper	7440-50-8	E440A	0.020	mg/kg wwt	0.218	0.234	7.05%	40%	----
		Iron	7439-89-6	E440A	0.60	mg/kg wwt	3.00	3.12	4.03%	40%	----
		Lead	7439-92-1	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Lithium	7439-93-2	E440A	0.10	mg/kg wwt	<0.10	<0.10	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440A	0.40	mg/kg wwt	279	285	1.94%	40%	----
		Manganese	7439-96-5	E440A	0.010	mg/kg wwt	0.149	0.130	13.6%	40%	----
		Molybdenum	7439-98-7	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Nickel	7440-02-0	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440A	2.0	mg/kg wwt	2620	2620	0.183%	40%	----
		Potassium	7440-09-7	E440A	4.0	mg/kg wwt	4100	4230	3.13%	40%	----
		Rubidium	7440-17-7	E440A	0.010	mg/kg wwt	1.78	1.77	0.434%	40%	----
		Selenium	7782-49-2	E440A	0.010	mg/kg wwt	0.087	0.095	9.58%	40%	----
		Sodium	7440-23-5	E440A	4.0	mg/kg wwt	408	405	0.811%	40%	----
		Strontium	7440-24-6	E440A	0.010	mg/kg wwt	0.205	0.170	18.5%	60%	----
		Tellurium	13494-80-9	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440A	0.00040	mg/kg wwt	<0.00040	<0.00040	0	Diff <2x LOR	----
		Tin	7440-31-5	E440A	0.020	mg/kg wwt	0.039	0.036	0.003	Diff <2x LOR	----
		Uranium	7440-61-1	E440A	0.00040	mg/kg wwt	<0.00040	<0.00040	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E440A	0.020	mg/kg wwt	<0.020	<0.020	0	Diff <2x LOR	----
		Zinc	7440-66-6	E440A	0.10	mg/kg wwt	4.79	5.17	7.65%	40%	----
		Zirconium	7440-67-7	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
Metals (QC Lot: 1233617)											
VA23C2951-048	KL-01_gn_20230921_RB_2 muscle*	Mercury	7439-97-6	E510A	0.0010	mg/kg wwt	0.0560	0.0572	2.10%	40%	----
Metals (QC Lot: 1233618)											
VA23C2951-048	KL-01_gn_20230921_RB_2 muscle*	Aluminum	7429-90-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----
		Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.079	0.087	0.008	Diff <2x LOR	----
		Barium	7440-39-3	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E440	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----

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: 1233618) - continued											
VA23C2951-048	KL-01_gn_20230921_RB_2 muscle*	Calcium	7440-70-2	E440	20	mg/kg	1010	829	19.5%	60%	----
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.0081	0.0081	0.00007	Diff <2x LOR	----
		Chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Copper	7440-50-8	E440	0.10	mg/kg	0.86	0.92	7.05%	40%	----
		Iron	7439-89-6	E440	3.0	mg/kg	11.8	12.3	0.5	Diff <2x LOR	----
		Lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	2.0	mg/kg	1100	1120	1.94%	40%	----
		Manganese	7439-96-5	E440	0.050	mg/kg	0.586	0.511	13.6%	40%	----
		Molybdenum	7439-98-7	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440	10	mg/kg	10300	10300	0.183%	40%	----
		Potassium	7440-09-7	E440	20	mg/kg	16200	16700	3.13%	40%	----
		Rubidium	7440-17-7	E440	0.050	mg/kg	7.03	7.00	0.434%	40%	----
		Selenium	7782-49-2	E440	0.050	mg/kg	0.342	0.376	9.58%	40%	----
		Sodium	7440-23-5	E440	20	mg/kg	1610	1600	0.811%	40%	----
		Strontium	7440-24-6	E440	0.050	mg/kg	0.809	0.672	18.5%	60%	----
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Tin	7440-31-5	E440	0.10	mg/kg	0.15	0.14	0.01	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Zinc	7440-66-6	E440	0.50	mg/kg	18.9	20.4	7.65%	40%	----
		Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 1233619)											
VA23C2951-048	KL-01_gn_20230921_RB_2 muscle*	Mercury	7439-97-6	E510	0.0050	mg/kg	0.221	0.226	2.10%	40%	----
Metals (QC Lot: 1233620)											
VA23C2951-087	KL-01_gn_20230921_MW_ 11 muscle*	Aluminum	7429-90-5	E440A	0.40	mg/kg wwt	<0.40	<0.40	0	Diff <2x LOR	----
		Antimony	7440-36-0	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440A	0.0040	mg/kg wwt	0.0289	0.0326	11.9%	40%	----
		Barium	7440-39-3	E440A	0.010	mg/kg wwt	<0.010	<0.010	0	Diff <2x LOR	----
		Beryllium	7440-41-7	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----

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: 1233620) - continued											
VA23C2951-087	KL-01_gn_20230921_MW_11 muscle*	Bismuth	7440-69-9	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Boron	7440-42-8	E440A	0.20	mg/kg wwt	<0.20	<0.20	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440A	0.0010	mg/kg wwt	<0.0010	<0.0010	0	Diff <2x LOR	----
		Calcium	7440-70-2	E440A	4.0	mg/kg wwt	150	130	14.5%	60%	----
		Cesium	7440-46-2	E440A	0.0010	mg/kg wwt	0.0034	0.0034	0.00004	Diff <2x LOR	----
		Chromium	7440-47-3	E440A	0.010	mg/kg wwt	<0.010	<0.010	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Copper	7440-50-8	E440A	0.020	mg/kg wwt	0.324	0.284	13.2%	40%	----
		Iron	7439-89-6	E440A	0.60	mg/kg wwt	3.40	2.99	12.7%	40%	----
		Lead	7439-92-1	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Lithium	7439-93-2	E440A	0.10	mg/kg wwt	<0.10	<0.10	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440A	0.40	mg/kg wwt	284	290	2.06%	40%	----
		Manganese	7439-96-5	E440A	0.010	mg/kg wwt	0.127	0.116	8.95%	40%	----
		Molybdenum	7439-98-7	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Nickel	7440-02-0	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440A	2.0	mg/kg wwt	2430	2430	0.194%	40%	----
		Potassium	7440-09-7	E440A	4.0	mg/kg wwt	4380	4400	0.436%	40%	----
		Rubidium	7440-17-7	E440A	0.010	mg/kg wwt	1.29	1.30	0.489%	40%	----
		Selenium	7782-49-2	E440A	0.010	mg/kg wwt	0.079	0.080	0.430%	40%	----
		Sodium	7440-23-5	E440A	4.0	mg/kg wwt	417	417	0.0326%	40%	----
		Strontium	7440-24-6	E440A	0.010	mg/kg wwt	0.089	0.069	25.9%	60%	----
		Tellurium	13494-80-9	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440A	0.00040	mg/kg wwt	<0.00040	<0.00040	0	Diff <2x LOR	----
		Tin	7440-31-5	E440A	0.020	mg/kg wwt	0.041	<0.020	0.021	Diff <2x LOR	----
		Uranium	7440-61-1	E440A	0.00040	mg/kg wwt	<0.00040	<0.00040	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E440A	0.020	mg/kg wwt	<0.020	<0.020	0	Diff <2x LOR	----
		Zinc	7440-66-6	E440A	0.10	mg/kg wwt	3.73	3.73	0.0190%	40%	----
		Zirconium	7440-67-7	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
Metals (QC Lot: 1233621)											
VA23C2951-087	KL-01_gn_20230921_MW_11 muscle*	Mercury	7439-97-6	E510A	0.0011	mg/kg wwt	0.0307	0.0302	1.76%	40%	----
Metals (QC Lot: 1233622)											
VA23C2951-087	KL-01_gn_20230921_MW_11 muscle*	Aluminum	7429-90-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----
		Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----

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: 1233622) - continued											
VA23C2951-087	KL-01_gn_20230921_MW_11 muscle*	Arsenic	7440-38-2	E440	0.020	mg/kg	0.126	0.142	11.9%	40%	----
		Barium	7440-39-3	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E440	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		Calcium	7440-70-2	E440	20	mg/kg	655	566	14.5%	60%	----
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.0150	0.0148	0.0002	Diff <2x LOR	----
		Chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Copper	7440-50-8	E440	0.10	mg/kg	1.41	1.24	13.2%	40%	----
		Iron	7439-89-6	E440	3.0	mg/kg	14.8	13.0	1.8	Diff <2x LOR	----
		Lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	2.0	mg/kg	1240	1260	2.06%	40%	----
		Manganese	7439-96-5	E440	0.050	mg/kg	0.553	0.505	8.95%	40%	----
		Molybdenum	7439-98-7	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440	10	mg/kg	10600	10600	0.194%	40%	----
		Potassium	7440-09-7	E440	20	mg/kg	19100	19200	0.436%	40%	----
		Rubidium	7440-17-7	E440	0.050	mg/kg	5.64	5.67	0.489%	40%	----
		Selenium	7782-49-2	E440	0.050	mg/kg	0.346	0.347	0.430%	40%	----
		Sodium	7440-23-5	E440	20	mg/kg	1820	1820	0.0326%	40%	----
		Strontium	7440-24-6	E440	0.050	mg/kg	0.388	0.299	25.9%	60%	----
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Tin	7440-31-5	E440	0.10	mg/kg	0.18	<0.10	0.08	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Zinc	7440-66-6	E440	0.50	mg/kg	16.3	16.3	0.0190%	40%	----
		Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 1233623)											
VA23C2951-087	KL-01_gn_20230921_MW_11 muscle*	Mercury	7439-97-6	E510	0.0050	mg/kg	0.134	0.132	1.76%	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: 1234225)											
VA23C2951-001	661-10_ef_20230901_RB_1	Mercury	7439-97-6	E510A	0.0015	mg/kg wwt	0.0802	0.0846	5.37%	40%	----
Metals (QC Lot: 1234226)											
VA23C2951-001	661-10_ef_20230901_RB_1	Aluminum	7429-90-5	E440A	0.40	mg/kg wwt	7.96	7.83	1.60%	40%	----
		Antimony	7440-36-0	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440A	0.0040	mg/kg wwt	0.0395	0.0391	0.909%	40%	----
		Barium	7440-39-3	E440A	0.010	mg/kg wwt	0.974	0.913	6.49%	40%	----
		Beryllium	7440-41-7	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Boron	7440-42-8	E440A	0.20	mg/kg wwt	<0.20	<0.20	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440A	0.0010	mg/kg wwt	0.0320	0.0346	7.72%	40%	----
		Calcium	7440-70-2	E440A	4.0	mg/kg wwt	9270	8580	7.80%	60%	----
		Cesium	7440-46-2	E440A	0.0010	mg/kg wwt	0.0260	0.0274	5.31%	40%	----
		Chromium	7440-47-3	E440A	0.010	mg/kg wwt	0.103	0.098	4.88%	40%	----
		Cobalt	7440-48-4	E440A	0.0040	mg/kg wwt	0.0157	0.0164	0.0006	Diff <2x LOR	----
		Copper	7440-50-8	E440A	0.020	mg/kg wwt	0.557	0.557	0.0668%	40%	----
		Iron	7439-89-6	E440A	0.60	mg/kg wwt	23.1	23.4	1.45%	40%	----
		Lead	7439-92-1	E440A	0.0040	mg/kg wwt	0.0100	0.0101	0.00008	Diff <2x LOR	----
		Lithium	7439-93-2	E440A	0.10	mg/kg wwt	<0.10	<0.10	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440A	0.40	mg/kg wwt	368	362	1.64%	40%	----
		Manganese	7439-96-5	E440A	0.010	mg/kg wwt	5.48	5.13	6.56%	40%	----
		Molybdenum	7439-98-7	E440A	0.0040	mg/kg wwt	0.0202	0.0197	0.0005	Diff <2x LOR	----
		Nickel	7440-02-0	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440A	2.0	mg/kg wwt	7390	7160	3.11%	40%	----
		Potassium	7440-09-7	E440A	4.0	mg/kg wwt	3400	3500	3.05%	40%	----
		Rubidium	7440-17-7	E440A	0.010	mg/kg wwt	2.66	2.77	3.80%	40%	----
		Selenium	7782-49-2	E440A	0.010	mg/kg wwt	0.307	0.307	0.227%	40%	----
		Sodium	7440-23-5	E440A	4.0	mg/kg wwt	1100	1120	1.82%	40%	----
		Strontium	7440-24-6	E440A	0.010	mg/kg wwt	11.1	10.0	10.1%	60%	----
		Tellurium	13494-80-9	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440A	0.00040	mg/kg wwt	0.00593	0.00568	4.34%	40%	----
		Tin	7440-31-5	E440A	0.020	mg/kg wwt	0.235	0.290	21.0%	40%	----
		Uranium	7440-61-1	E440A	0.00040	mg/kg wwt	0.0103	0.00978	5.08%	40%	----
		Vanadium	7440-62-2	E440A	0.020	mg/kg wwt	0.101	0.095	0.006	Diff <2x LOR	----

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: 1234226) - continued											
VA23C2951-001	661-10_ef_20230901_RB_1	Zinc	7440-66-6	E440A	0.10	mg/kg wwt	36.4	36.6	0.491%	40%	----
		Zirconium	7440-67-7	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
Metals (QC Lot: 1234227)											
VA23C2951-001	661-10_ef_20230901_RB_1	Aluminum	7429-90-5	E440	2.0	mg/kg	33.3	32.7	1.60%	40%	----
		Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.165	0.164	0.909%	40%	----
		Barium	7440-39-3	E440	0.050	mg/kg	4.07	3.82	6.49%	40%	----
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E440	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.0050	mg/kg	0.134	0.144	7.72%	40%	----
		Calcium	7440-70-2	E440	20	mg/kg	38800	35800	7.80%	60%	----
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.108	0.114	5.31%	40%	----
		Chromium	7440-47-3	E440	0.050	mg/kg	0.430	0.410	4.88%	40%	----
		Cobalt	7440-48-4	E440	0.020	mg/kg	0.066	0.068	0.003	Diff <2x LOR	----
		Copper	7440-50-8	E440	0.10	mg/kg	2.33	2.33	0.0668%	40%	----
		Iron	7439-89-6	E440	3.0	mg/kg	96.5	97.9	1.45%	40%	----
		Lead	7439-92-1	E440	0.020	mg/kg	0.042	0.042	0.0003	Diff <2x LOR	----
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	2.0	mg/kg	1540	1510	1.64%	40%	----
		Manganese	7439-96-5	E440	0.050	mg/kg	22.9	21.5	6.56%	40%	----
		Molybdenum	7439-98-7	E440	0.020	mg/kg	0.085	0.082	0.002	Diff <2x LOR	----
		Nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440	10	mg/kg	30900	29900	3.11%	40%	----
		Potassium	7440-09-7	E440	20	mg/kg	14200	14600	3.05%	40%	----
		Rubidium	7440-17-7	E440	0.050	mg/kg	11.1	11.6	3.80%	40%	----
		Selenium	7782-49-2	E440	0.050	mg/kg	1.28	1.28	0.227%	40%	----
		Sodium	7440-23-5	E440	20	mg/kg	4610	4690	1.82%	40%	----
		Strontium	7440-24-6	E440	0.050	mg/kg	46.4	41.9	10.1%	60%	----
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.0020	mg/kg	0.0248	0.0237	4.34%	40%	----
		Tin	7440-31-5	E440	0.10	mg/kg	0.98	1.21	21.0%	40%	----
		Uranium	7440-61-1	E440	0.0020	mg/kg	0.0430	0.0409	5.08%	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: 1234227) - continued											
VA23C2951-001	661-10_ef_20230901_RB_1	Vanadium	7440-62-2	E440	0.10	mg/kg	0.42	0.40	0.02	Diff <2x LOR	----
		Zinc	7440-66-6	E440	0.50	mg/kg	152	153	0.491%	40%	----
		Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 1234228)											
VA23C2951-001	661-10_ef_20230901_RB_1	Mercury	7439-97-6	E510	0.0062	mg/kg	0.335	0.354	5.37%	40%	----
Metals (QC Lot: 1234256)											
VA23C2951-027	TC-10_ef_20230913_RB_3	Aluminum	7429-90-5	E440A	0.40	mg/kg wwt	1.13	1.48	0.35	Diff <2x LOR	----
		Antimony	7440-36-0	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440A	0.0040	mg/kg wwt	0.0557	0.0569	2.07%	40%	----
		Barium	7440-39-3	E440A	0.010	mg/kg wwt	0.701	0.815	15.0%	40%	----
		Beryllium	7440-41-7	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Boron	7440-42-8	E440A	0.20	mg/kg wwt	0.30	0.29	0.005	Diff <2x LOR	----
		Cadmium	7440-43-9	E440A	0.0010	mg/kg wwt	0.0060	0.0056	7.56%	40%	----
		Calcium	7440-70-2	E440A	4.0	mg/kg wwt	6970	7690	9.86%	60%	----
		Cesium	7440-46-2	E440A	0.0010	mg/kg wwt	0.0073	0.0074	1.48%	40%	----
		Chromium	7440-47-3	E440A	0.010	mg/kg wwt	<0.010	0.014	0.004	Diff <2x LOR	----
		Cobalt	7440-48-4	E440A	0.0040	mg/kg wwt	0.0103	0.0101	0.0001	Diff <2x LOR	----
		Copper	7440-50-8	E440A	0.020	mg/kg wwt	1.05	0.916	13.7%	40%	----
		Iron	7439-89-6	E440A	0.60	mg/kg wwt	19.5	20.8	6.90%	40%	----
		Lead	7439-92-1	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Lithium	7439-93-2	E440A	0.10	mg/kg wwt	<0.10	<0.10	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440A	0.40	mg/kg wwt	332	350	5.07%	40%	----
		Manganese	7439-96-5	E440A	0.010	mg/kg wwt	10.1	11.2	10.8%	40%	----
		Molybdenum	7439-98-7	E440A	0.0040	mg/kg wwt	0.0164	0.0172	0.0009	Diff <2x LOR	----
		Nickel	7440-02-0	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440A	2.0	mg/kg wwt	6600	6960	5.31%	40%	----
		Potassium	7440-09-7	E440A	4.0	mg/kg wwt	3340	3280	1.94%	40%	----
		Rubidium	7440-17-7	E440A	0.010	mg/kg wwt	2.03	1.99	2.15%	40%	----
		Selenium	7782-49-2	E440A	0.010	mg/kg wwt	0.416	0.372	11.1%	40%	----
		Sodium	7440-23-5	E440A	4.0	mg/kg wwt	994	986	0.813%	40%	----
		Strontium	7440-24-6	E440A	0.010	mg/kg wwt	6.39	7.41	14.8%	60%	----
		Tellurium	13494-80-9	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----

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: 1234256) - continued											
VA23C2951-027	TC-10_ef_20230913_RB_3	Thallium	7440-28-0	E440A	0.00040	mg/kg wwt	0.00218	0.00222	1.72%	40%	----
		Tin	7440-31-5	E440A	0.020	mg/kg wwt	0.128	0.099	25.5%	40%	----
		Uranium	7440-61-1	E440A	0.00040	mg/kg wwt	0.00102	0.00110	0.00008	Diff <2x LOR	----
		Vanadium	7440-62-2	E440A	0.020	mg/kg wwt	0.021	0.024	0.003	Diff <2x LOR	----
		Zinc	7440-66-6	E440A	0.10	mg/kg wwt	34.6	34.7	0.119%	40%	----
		Zirconium	7440-67-7	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
Metals (QC Lot: 1234257)											
VA23C2951-027	TC-10_ef_20230913_RB_3	Mercury	7439-97-6	E510A	0.0024	mg/kg wwt	0.158	0.151	4.63%	40%	----
Metals (QC Lot: 1234258)											
VA23C2951-027	TC-10_ef_20230913_RB_3	Aluminum	7429-90-5	E440	2.0	mg/kg	4.5	5.8	1.4	Diff <2x LOR	----
		Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.220	0.224	2.07%	40%	----
		Barium	7440-39-3	E440	0.050	mg/kg	2.77	3.22	15.0%	40%	----
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E440	1.0	mg/kg	1.2	1.2	0.02	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.0050	mg/kg	0.0237	0.0220	0.0017	Diff <2x LOR	----
		Calcium	7440-70-2	E440	20	mg/kg	27500	30300	9.86%	60%	----
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.0289	0.0293	1.48%	40%	----
		Chromium	7440-47-3	E440	0.050	mg/kg	<0.050	0.057	0.007	Diff <2x LOR	----
		Cobalt	7440-48-4	E440	0.020	mg/kg	0.040	0.040	0.0005	Diff <2x LOR	----
		Copper	7440-50-8	E440	0.10	mg/kg	4.14	3.61	13.7%	40%	----
		Iron	7439-89-6	E440	3.0	mg/kg	76.8	82.3	6.90%	40%	----
		Lead	7439-92-1	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	2.0	mg/kg	1310	1380	5.07%	40%	----
		Manganese	7439-96-5	E440	0.050	mg/kg	39.8	44.4	10.8%	40%	----
		Molybdenum	7439-98-7	E440	0.020	mg/kg	0.064	0.068	0.003	Diff <2x LOR	----
		Nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440	10	mg/kg	26100	27500	5.31%	40%	----
		Potassium	7440-09-7	E440	20	mg/kg	13200	12900	1.94%	40%	----
		Rubidium	7440-17-7	E440	0.050	mg/kg	8.02	7.85	2.15%	40%	----
		Selenium	7782-49-2	E440	0.050	mg/kg	1.64	1.47	11.1%	40%	----
		Sodium	7440-23-5	E440	20	mg/kg	3920	3890	0.813%	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: 1234258) - continued											
VA23C2951-027	TC-10_ef_20230913_RB_3	Strontium	7440-24-6	E440	0.050	mg/kg	25.2	29.2	14.8%	60%	----
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.0020	mg/kg	0.0086	0.0087	0.0001	Diff <2x LOR	----
		Tin	7440-31-5	E440	0.10	mg/kg	0.50	0.39	0.11	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.0020	mg/kg	0.0040	0.0043	0.0003	Diff <2x LOR	----
		Vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Zinc	7440-66-6	E440	0.50	mg/kg	137	137	0.119%	40%	----
		Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 1234259)											
VA23C2951-027	TC-10_ef_20230913_RB_3	Mercury	7439-97-6	E510	0.0094	mg/kg	0.624	0.596	4.63%	40%	----
Metals (QC Lot: 1242502)											
VA23C2951-049	KL-01_gn_20230921_RB_2 carcass*	Mercury	7439-97-6	E510A	0.0012	mg/kg wwt	0.0464	0.0463	0.362%	40%	----
Metals (QC Lot: 1242503)											
VA23C2951-049	KL-01_gn_20230921_RB_2 carcass*	Antimony	7440-36-0	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440A	0.0040	mg/kg wwt	0.0486	0.0464	4.58%	40%	----
		Barium	7440-39-3	E440A	0.010	mg/kg wwt	0.169	0.196	15.0%	40%	----
		Beryllium	7440-41-7	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Boron	7440-42-8	E440A	0.20	mg/kg wwt	<0.20	<0.20	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440A	0.0010	mg/kg wwt	0.0022	0.0021	0.00010	Diff <2x LOR	----
		Calcium	7440-70-2	E440A	4.0	mg/kg wwt	1830	3090	51.4%	60%	----
		Cesium	7440-46-2	E440A	0.0010	mg/kg wwt	0.0019	0.0017	0.0002	Diff <2x LOR	----
		Chromium	7440-47-3	E440A	0.010	mg/kg wwt	<0.010	<0.010	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E440A	0.0040	mg/kg wwt	0.0097	0.0070	0.0027	Diff <2x LOR	----
		Copper	7440-50-8	E440A	0.020	mg/kg wwt	0.872	0.887	1.71%	40%	----
		Iron	7439-89-6	E440A	0.60	mg/kg wwt	28.0	18.4	41.4%	40%	DUP-H
		Lead	7439-92-1	E440A	0.0040	mg/kg wwt	0.0069	0.0071	0.0002	Diff <2x LOR	----
		Lithium	7439-93-2	E440A	0.10	mg/kg wwt	<0.10	<0.10	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440A	0.40	mg/kg wwt	258	286	10.1%	40%	----
		Manganese	7439-96-5	E440A	0.010	mg/kg wwt	2.81	3.07	8.84%	40%	----
		Molybdenum	7439-98-7	E440A	0.0040	mg/kg wwt	0.0094	0.0098	0.0004	Diff <2x LOR	----
		Nickel	7440-02-0	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440A	2.0	mg/kg wwt	3000	3780	23.2%	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: 1242503) - continued											
VA23C2951-049	KL-01_gn_20230921_RB_2 carcass*	Potassium	7440-09-7	E440A	4.0	mg/kg wwt	2920	3000	2.72%	40%	----
		Rubidium	7440-17-7	E440A	0.010	mg/kg wwt	1.49	1.53	2.38%	40%	----
		Selenium	7782-49-2	E440A	0.010	mg/kg wwt	0.161	0.202	23.0%	40%	----
		Sodium	7440-23-5	E440A	4.0	mg/kg wwt	694	710	2.19%	40%	----
		Strontium	7440-24-6	E440A	0.010	mg/kg wwt	2.26	3.27	36.7%	60%	----
		Tellurium	13494-80-9	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440A	0.00040	mg/kg wwt	<0.00040	0.00043	0.00003	Diff <2x LOR	----
		Tin	7440-31-5	E440A	0.020	mg/kg wwt	<0.020	<0.020	0	Diff <2x LOR	----
		Uranium	7440-61-1	E440A	0.00040	mg/kg wwt	<0.00040	<0.00040	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E440A	0.020	mg/kg wwt	0.043	<0.020	0.023	Diff <2x LOR	----
		Zinc	7440-66-6	E440A	0.10	mg/kg wwt	29.1	31.8	8.78%	40%	----
		Zirconium	7440-67-7	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
VA23C2951-049	KL-01_gn_20230921_RB_2 carcass*	Aluminum	7429-90-5	E440A	0.40	mg/kg wwt	1.01	0.51	0.50	Diff <2x LOR	----
Metals (QC Lot: 1242504)											
VA23C2951-049	KL-01_gn_20230921_RB_2 carcass*	Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.157	0.150	4.58%	40%	----
		Barium	7440-39-3	E440	0.050	mg/kg	0.547	0.635	15.0%	40%	----
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E440	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.0050	mg/kg	0.0070	0.0067	0.0003	Diff <2x LOR	----
		Calcium	7440-70-2	E440	20	mg/kg	5900	9990	51.4%	60%	----
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.0063	0.0056	0.0007	Diff <2x LOR	----
		Chromium	7440-47-3	E440	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E440	0.020	mg/kg	0.031	0.023	0.009	Diff <2x LOR	----
		Copper	7440-50-8	E440	0.10	mg/kg	2.82	2.87	1.71%	40%	----
		Iron	7439-89-6	E440	3.0	mg/kg	90.7	59.5	41.4%	40%	DUP-H
		Lead	7439-92-1	E440	0.020	mg/kg	0.022	0.023	0.0006	Diff <2x LOR	----
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	2.0	mg/kg	834	924	10.1%	40%	----
		Manganese	7439-96-5	E440	0.050	mg/kg	9.08	9.92	8.84%	40%	----
		Molybdenum	7439-98-7	E440	0.020	mg/kg	0.030	0.032	0.001	Diff <2x LOR	----
		Nickel	7440-02-0	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----

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: 1242504) - continued											
VA23C2951-049	KL-01_gn_20230921_RB_2 carcass*	Phosphorus	7723-14-0	E440	10	mg/kg	9690	12200	23.2%	40%	----
		Potassium	7440-09-7	E440	20	mg/kg	9440	9700	2.72%	40%	----
		Rubidium	7440-17-7	E440	0.050	mg/kg	4.83	4.94	2.38%	40%	----
		Selenium	7782-49-2	E440	0.050	mg/kg	0.519	0.655	23.0%	40%	----
		Sodium	7440-23-5	E440	20	mg/kg	2240	2290	2.19%	40%	----
		Strontium	7440-24-6	E440	0.050	mg/kg	7.30	10.6	36.7%	60%	----
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E440	0.10	mg/kg	0.14	<0.10	0.04	Diff <2x LOR	----
		Zinc	7440-66-6	E440	0.50	mg/kg	94.1	103	8.78%	40%	----
		Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
VA23C2951-049	KL-01_gn_20230921_RB_2 carcass*	Aluminum	7429-90-5	E440	2.0	mg/kg	3.2	<2.0	1.2	Diff <2x LOR	----
Metals (QC Lot: 1242505)											
VA23C2951-049	KL-01_gn_20230921_RB_2 carcass*	Mercury	7439-97-6	E510	0.0050	mg/kg	0.150	0.150	0.362%	40%	----
Metals (QC Lot: 1245183)											
VA23C2951-095	KL-01_gn_20230922_MW_4 liver*	Aluminum	7429-90-5	E472A	1.0	mg/kg wwt	<1.0	<1.0	0	Diff <2x LOR	----
		Antimony	7440-36-0	E472A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E472A	0.0060	mg/kg wwt	0.0066	0.0079	0.0012	Diff <2x LOR	----
		Barium	7440-39-3	E472A	0.010	mg/kg wwt	0.070	0.077	9.59%	40%	----
		Beryllium	7440-41-7	E472A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E472A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Boron	7440-42-8	E472A	0.20	mg/kg wwt	<0.20	<0.20	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E472A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Calcium	7440-70-2	E472A	4.0	mg/kg wwt	106	105	1.24%	60%	----
		Cesium	7440-46-2	E472A	0.0010	mg/kg wwt	0.0018	0.0018	0.000008	Diff <2x LOR	----
		Chromium	7440-47-3	E472A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E472A	0.0040	mg/kg wwt	0.0154	0.0158	0.0004	Diff <2x LOR	----
		Copper	7440-50-8	E472A	0.040	mg/kg wwt	1.25	1.27	1.81%	40%	----
		Iron	7439-89-6	E472A	1.0	mg/kg wwt	36.8	35.5	3.53%	40%	----
		Lead	7439-92-1	E472A	0.010	mg/kg wwt	<0.010	<0.010	0	Diff <2x LOR	----

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: 1245183) - continued											
VA23C2951-095	KL-01_gn_20230922_MW_4 liver*	Lithium	7439-93-2	E472A	0.10	mg/kg wwt	<0.10	<0.10	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E472A	0.40	mg/kg wwt	280	274	2.38%	40%	----
		Manganese	7439-96-5	E472A	0.010	mg/kg wwt	2.68	2.66	0.879%	40%	----
		Molybdenum	7439-98-7	E472A	0.0080	mg/kg wwt	0.0968	0.0968	0.0426%	40%	----
		Nickel	7440-02-0	E472A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E472A	2.0	mg/kg wwt	4610	4560	0.997%	40%	----
		Potassium	7440-09-7	E472A	4.0	mg/kg wwt	3630	3630	0.0115%	40%	----
		Rubidium	7440-17-7	E472A	0.010	mg/kg wwt	1.98	2.02	1.81%	40%	----
		Selenium	7782-49-2	E472A	0.020	mg/kg wwt	0.194	0.191	1.21%	40%	----
		Sodium	7440-23-5	E472A	4.0	mg/kg wwt	1170	1200	2.33%	40%	----
		Strontium	7440-24-6	E472A	0.020	mg/kg wwt	0.114	0.108	5.16%	60%	----
		Tellurium	13494-80-9	E472A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Thallium	7440-28-0	E472A	0.00040	mg/kg wwt	0.00044	0.00046	0.00002	Diff <2x LOR	----
		Tin	7440-31-5	E472A	0.020	mg/kg wwt	<0.020	<0.020	0	Diff <2x LOR	----
		Uranium	7440-61-1	E472A	0.00040	mg/kg wwt	<0.00040	<0.00040	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E472A	0.020	mg/kg wwt	<0.020	<0.020	0	Diff <2x LOR	----
		Zinc	7440-66-6	E472A	0.20	mg/kg wwt	32.0	32.2	0.703%	40%	----
		Zirconium	7440-67-7	E472A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
Metals (QC Lot: 1245184)											
VA23C2951-095	KL-01_gn_20230922_MW_4 liver*	Mercury	7439-97-6	E511	0.0050	mg/kg	0.0618	0.0622	0.515%	40%	----
Metals (QC Lot: 1245185)											
VA23C2951-095	KL-01_gn_20230922_MW_4 liver*	Mercury	7439-97-6	E511A	0.0010	mg/kg wwt	0.0156	0.0157	0.515%	40%	----
Metals (QC Lot: 1245186)											
VA23C2951-095	KL-01_gn_20230922_MW_4 liver*	Aluminum	7429-90-5	E472	5.0	mg/kg	<5.0	<5.0	0	Diff <2x LOR	----
		Antimony	7440-36-0	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E472	0.030	mg/kg	<0.030	0.031	0.001	Diff <2x LOR	----
		Barium	7440-39-3	E472	0.050	mg/kg	0.276	0.303	9.59%	40%	----
		Beryllium	7440-41-7	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E472	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Calcium	7440-70-2	E472	20	mg/kg	420	415	1.24%	60%	----

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: 1245186) - continued											
VA23C2951-095	KL-01_gn_20230922_MW_4 liver*	Cesium	7440-46-2	E472	0.0050	mg/kg	0.0072	0.0072	0.00003	Diff <2x LOR	----
		Chromium	7440-47-3	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E472	0.020	mg/kg	0.061	0.063	0.002	Diff <2x LOR	----
		Copper	7440-50-8	E472	0.20	mg/kg	4.95	5.04	1.81%	40%	----
		Iron	7439-89-6	E472	5.0	mg/kg	146	140	3.53%	40%	----
		Lead	7439-92-1	E472	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Lithium	7439-93-2	E472	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E472	2.0	mg/kg	1110	1080	2.38%	40%	----
		Manganese	7439-96-5	E472	0.050	mg/kg	10.6	10.5	0.879%	40%	----
		Molybdenum	7439-98-7	E472	0.040	mg/kg	0.383	0.383	0.0426%	40%	----
		Nickel	7440-02-0	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E472	10	mg/kg	18200	18100	0.997%	40%	----
		Potassium	7440-09-7	E472	20	mg/kg	14400	14400	0.0115%	40%	----
		Rubidium	7440-17-7	E472	0.050	mg/kg	7.85	8.00	1.81%	40%	----
		Selenium	7782-49-2	E472	0.10	mg/kg	0.76	0.76	1.21%	40%	----
		Sodium	7440-23-5	E472	20	mg/kg	4640	4750	2.33%	40%	----
		Strontium	7440-24-6	E472	0.10	mg/kg	0.45	0.43	5.16%	60%	----
		Tellurium	13494-80-9	E472	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E472	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Tin	7440-31-5	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Uranium	7440-61-1	E472	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Zinc	7440-66-6	E472	1.0	mg/kg	127	128	0.703%	40%	----
		Zirconium	7440-67-7	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 1245196)											
VA23C2951-003	661-10_ef_20230901_RB_3	Aluminum	7429-90-5	E472A	1.0	mg/kg wwt	3.8	3.6	0.2	Diff <2x LOR	----
		Antimony	7440-36-0	E472A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E472A	0.0060	mg/kg wwt	0.0365	0.0368	0.999%	40%	----
		Barium	7440-39-3	E472A	0.010	mg/kg wwt	0.435	0.405	7.09%	40%	----
		Beryllium	7440-41-7	E472A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E472A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Boron	7440-42-8	E472A	0.20	mg/kg wwt	<0.20	<0.20	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E472A	0.0020	mg/kg wwt	0.0285	0.0290	1.91%	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: 1245196) - continued											
VA23C2951-003	661-10_ef_20230901_RB_3	Calcium	7440-70-2	E472A	4.0	mg/kg wwt	6640	5540	18.1%	60%	----
		Cesium	7440-46-2	E472A	0.0010	mg/kg wwt	0.0312	0.0298	4.50%	40%	----
		Chromium	7440-47-3	E472A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E472A	0.0040	mg/kg wwt	0.0157	0.0161	0.0004	Diff <2x LOR	----
		Copper	7440-50-8	E472A	0.040	mg/kg wwt	0.924	0.908	1.66%	40%	----
		Iron	7439-89-6	E472A	1.0	mg/kg wwt	17.8	18.4	3.06%	40%	----
		Lead	7439-92-1	E472A	0.010	mg/kg wwt	<0.010	<0.010	0	Diff <2x LOR	----
		Lithium	7439-93-2	E472A	0.10	mg/kg wwt	<0.10	<0.10	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E472A	0.40	mg/kg wwt	385	358	7.09%	40%	----
		Manganese	7439-96-5	E472A	0.010	mg/kg wwt	3.57	3.52	1.53%	40%	----
		Molybdenum	7439-98-7	E472A	0.0080	mg/kg wwt	0.0192	0.0214	0.0021	Diff <2x LOR	----
		Nickel	7440-02-0	E472A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E472A	2.0	mg/kg wwt	6520	5860	10.8%	40%	----
		Potassium	7440-09-7	E472A	4.0	mg/kg wwt	3370	3360	0.298%	40%	----
		Rubidium	7440-17-7	E472A	0.010	mg/kg wwt	3.73	3.69	1.04%	40%	----
		Selenium	7782-49-2	E472A	0.020	mg/kg wwt	0.314	0.300	4.69%	40%	----
		Sodium	7440-23-5	E472A	4.0	mg/kg wwt	872	844	3.22%	40%	----
		Strontium	7440-24-6	E472A	0.020	mg/kg wwt	7.58	6.31	18.2%	60%	----
		Tellurium	13494-80-9	E472A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Thallium	7440-28-0	E472A	0.00040	mg/kg wwt	0.00447	0.00421	5.93%	40%	----
		Tin	7440-31-5	E472A	0.020	mg/kg wwt	0.097	0.113	14.6%	40%	----
		Uranium	7440-61-1	E472A	0.00040	mg/kg wwt	0.00426	0.00586	31.6%	40%	----
		Vanadium	7440-62-2	E472A	0.020	mg/kg wwt	0.041	0.042	0.0008	Diff <2x LOR	----
		Zinc	7440-66-6	E472A	0.20	mg/kg wwt	29.3	28.9	1.57%	40%	----
		Zirconium	7440-67-7	E472A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
Metals (QC Lot: 1245197)											
VA23C2951-003	661-10_ef_20230901_RB_3	Mercury	7439-97-6	E511	0.0050	mg/kg	0.223	0.219	1.60%	40%	----
Metals (QC Lot: 1245198)											
VA23C2951-003	661-10_ef_20230901_RB_3	Mercury	7439-97-6	E511A	0.0010	mg/kg wwt	0.0703	0.0692	1.60%	40%	----
Metals (QC Lot: 1245199)											
VA23C2951-003	661-10_ef_20230901_RB_3	Aluminum	7429-90-5	E472	5.0	mg/kg	12.1	11.5	0.6	Diff <2x LOR	----
		Antimony	7440-36-0	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----

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: 1245199) - continued											
VA23C2951-003	661-10_ef_20230901_RB_3	Arsenic	7440-38-2	E472	0.030	mg/kg	0.116	0.117	0.001	Diff <2x LOR	----
		Barium	7440-39-3	E472	0.050	mg/kg	1.38	1.28	7.09%	40%	----
		Beryllium	7440-41-7	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E472	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E472	0.010	mg/kg	0.090	0.092	1.91%	40%	----
		Calcium	7440-70-2	E472	20	mg/kg	21000	17600	18.1%	60%	----
		Cesium	7440-46-2	E472	0.0050	mg/kg	0.0990	0.0947	4.50%	40%	----
		Chromium	7440-47-3	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E472	0.020	mg/kg	0.050	0.051	0.001	Diff <2x LOR	----
		Copper	7440-50-8	E472	0.20	mg/kg	2.93	2.88	1.66%	40%	----
		Iron	7439-89-6	E472	5.0	mg/kg	56.5	58.2	3.06%	40%	----
		Lead	7439-92-1	E472	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Lithium	7439-93-2	E472	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E472	2.0	mg/kg	1220	1140	7.09%	40%	----
		Manganese	7439-96-5	E472	0.050	mg/kg	11.3	11.2	1.53%	40%	----
		Molybdenum	7439-98-7	E472	0.040	mg/kg	0.061	0.068	0.007	Diff <2x LOR	----
		Nickel	7440-02-0	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E472	10	mg/kg	20700	18600	10.8%	40%	----
		Potassium	7440-09-7	E472	20	mg/kg	10700	10700	0.298%	40%	----
		Rubidium	7440-17-7	E472	0.050	mg/kg	11.8	11.7	1.04%	40%	----
		Selenium	7782-49-2	E472	0.10	mg/kg	1.00	0.95	4.69%	40%	----
		Sodium	7440-23-5	E472	20	mg/kg	2760	2680	3.22%	40%	----
		Strontium	7440-24-6	E472	0.10	mg/kg	24.0	20.0	18.2%	60%	----
		Tellurium	13494-80-9	E472	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E472	0.0020	mg/kg	0.0142	0.0134	5.93%	40%	----
		Tin	7440-31-5	E472	0.10	mg/kg	0.31	0.36	0.05	Diff <2x LOR	----
		Uranium	7440-61-1	E472	0.0020	mg/kg	0.0135	0.0186	31.6%	40%	----
		Vanadium	7440-62-2	E472	0.10	mg/kg	0.13	0.13	0.002	Diff <2x LOR	----
		Zinc	7440-66-6	E472	1.0	mg/kg	93.0	91.6	1.57%	40%	----
		Zirconium	7440-67-7	E472	0.20	mg/kg	<0.20	<0.20	0	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: 1233611)						
Moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 1233612)						
Moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 1234243)						
Moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 1234255)						
Moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 1235156)						
Moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 1239277)						
Moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 1245182)						
Moisture	----	E144-H	2	%	<2.0	----
Physical Tests (QCLot: 1245195)						
Moisture	----	E144-H	2	%	<2.0	----
Metals (QCLot: 1233616)						
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	<0.40	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	<0.0020	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	<0.0040	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	<0.010	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	<0.0020	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	<0.0020	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	<0.20	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	<0.0010	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	<4.0	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	<0.0010	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	<0.010	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	<0.0040	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	<0.020	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	<0.60	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	<0.0040	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	<0.10	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1233616) - continued						
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	<0.40	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	<0.010	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	<0.0040	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	<0.040	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	<2.0	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	<4.0	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	<0.010	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	<0.010	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	<4.0	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	<0.010	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	<0.0040	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	<0.00040	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	<0.020	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	<0.00040	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	<0.020	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	<0.10	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	<0.040	----
Metals (QCLot: 1233617)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1233618)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E440	1	mg/kg	<1.0	----
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
Calcium	7440-70-2	E440	20	mg/kg	<20	----
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
Iron	7439-89-6	E440	3	mg/kg	<3.0	----
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1233618) - continued						
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
Phosphorus	7723-14-0	E440	10	mg/kg	<10	----
Potassium	7440-09-7	E440	20	mg/kg	<20	----
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
Sodium	7440-23-5	E440	20	mg/kg	<20	----
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 1233619)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1233620)						
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	<0.40	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	<0.0020	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	<0.0040	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	<0.010	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	<0.0020	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	<0.0020	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	<0.20	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	<0.0010	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	<4.0	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	<0.0010	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	<0.010	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	<0.0040	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	<0.020	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	<0.60	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1233620) - continued						
Lead	7439-92-1	E440A	0.004	mg/kg wwt	<0.0040	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	<0.10	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	<0.40	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	<0.010	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	<0.0040	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	<0.040	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	<2.0	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	<4.0	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	<0.010	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	<0.010	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	<4.0	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	<0.010	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	<0.0040	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	<0.00040	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	<0.020	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	<0.00040	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	<0.020	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	<0.10	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	<0.040	----
Metals (QCLot: 1233621)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1233622)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E440	1	mg/kg	<1.0	----
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
Calcium	7440-70-2	E440	20	mg/kg	<20	----
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1233622) - continued						
Iron	7439-89-6	E440	3	mg/kg	<3.0	----
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
Phosphorus	7723-14-0	E440	10	mg/kg	<10	----
Potassium	7440-09-7	E440	20	mg/kg	<20	----
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
Sodium	7440-23-5	E440	20	mg/kg	<20	----
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 1233623)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1234225)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1234226)						
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	<0.40	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	<0.0020	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	<0.0040	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	<0.010	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	<0.0020	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	<0.0020	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	<0.20	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	<0.0010	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	<4.0	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	<0.0010	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1234226) - continued						
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	<0.010	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	<0.0040	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	<0.020	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	<0.60	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	<0.0040	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	<0.10	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	<0.40	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	<0.010	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	<0.0040	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	<0.040	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	<2.0	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	<4.0	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	<0.010	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	<0.010	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	<4.0	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	<0.010	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	<0.0040	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	<0.00040	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	<0.020	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	<0.00040	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	<0.020	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	<0.10	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	<0.040	----
Metals (QCLot: 1234227)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E440	1	mg/kg	<1.0	----
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
Calcium	7440-70-2	E440	20	mg/kg	<20	----
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1234227) - continued						
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
Iron	7439-89-6	E440	3	mg/kg	<3.0	----
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
Phosphorus	7723-14-0	E440	10	mg/kg	<10	----
Potassium	7440-09-7	E440	20	mg/kg	<20	----
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
Sodium	7440-23-5	E440	20	mg/kg	<20	----
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 1234228)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1234256)						
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	<0.40	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	<0.0020	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	<0.0040	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	<0.010	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	<0.0020	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	<0.0020	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	<0.20	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	<0.0010	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	<4.0	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	<0.0010	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1234256) - continued						
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	<0.010	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	<0.0040	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	<0.020	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	<0.60	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	<0.0040	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	<0.10	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	<0.40	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	<0.010	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	<0.0040	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	<0.040	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	<2.0	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	<4.0	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	<0.010	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	<0.010	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	<4.0	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	<0.010	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	<0.0040	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	<0.00040	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	<0.020	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	<0.00040	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	<0.020	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	<0.10	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	<0.040	----
Metals (QCLot: 1234257)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1234258)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E440	1	mg/kg	<1.0	----
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
Calcium	7440-70-2	E440	20	mg/kg	<20	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1234258) - continued						
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
Iron	7439-89-6	E440	3	mg/kg	<3.0	----
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
Phosphorus	7723-14-0	E440	10	mg/kg	<10	----
Potassium	7440-09-7	E440	20	mg/kg	<20	----
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
Sodium	7440-23-5	E440	20	mg/kg	<20	----
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 1234259)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1242502)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1242503)						
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	<0.40	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	<0.0020	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	<0.0040	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	<0.010	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	<0.0020	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	<0.0020	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1242503) - continued						
Boron	7440-42-8	E440A	0.2	mg/kg wwt	<0.20	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	<0.0010	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	<4.0	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	<0.0010	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	<0.010	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	<0.0040	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	<0.020	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	<0.60	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	<0.0040	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	<0.10	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	<0.40	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	<0.010	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	<0.0040	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	<0.040	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	<2.0	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	<4.0	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	<0.010	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	<0.010	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	<4.0	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	<0.010	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	<0.0040	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	<0.00040	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	<0.020	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	<0.00040	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	<0.020	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	<0.10	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	<0.040	----
Metals (QCLot: 1242504)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E440	1	mg/kg	<1.0	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1242504) - continued						
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
Calcium	7440-70-2	E440	20	mg/kg	<20	----
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
Iron	7439-89-6	E440	3	mg/kg	<3.0	----
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
Phosphorus	7723-14-0	E440	10	mg/kg	<10	----
Potassium	7440-09-7	E440	20	mg/kg	<20	----
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
Sodium	7440-23-5	E440	20	mg/kg	<20	----
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 1242505)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1245183)						
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	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1245183) - continued						
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	----
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: 1245184)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1245185)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1245186)						
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	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1245186) - continued						
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	----
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: 1245196)						
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	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1245196) - continued						
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	----
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: 1245197)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1245198)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1245199)						
Aluminum	7429-90-5	E472	5	mg/kg	<5.0	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1245199) - continued						
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	----
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	----

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	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1233611)									
Moisture	----	E144	0.5	%	50 %	99.8	90.0	110	----
Physical Tests (QCLot: 1233612)									
Moisture	----	E144	0.5	%	50 %	100	90.0	110	----
Physical Tests (QCLot: 1234243)									
Moisture	----	E144	0.5	%	50 %	100	90.0	110	----
Physical Tests (QCLot: 1234255)									
Moisture	----	E144	0.5	%	50 %	100	90.0	110	----
Physical Tests (QCLot: 1235156)									
Moisture	----	E144	0.5	%	50 %	100	90.0	110	----
Physical Tests (QCLot: 1239277)									
Moisture	----	E144	0.5	%	50 %	100	90.0	110	----
Physical Tests (QCLot: 1245182)									
Moisture	----	E144-H	2	%	100 %	99.7	90.0	110	----
Physical Tests (QCLot: 1245195)									
Moisture	----	E144-H	2	%	100 %	100	90.0	110	----
Metals (QCLot: 1233616)									
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	20 mg/kg wwt	104	80.0	120	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	10 mg/kg wwt	101	80.0	120	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	10 mg/kg wwt	106	80.0	120	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	102	80.0	120	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	1 mg/kg wwt	103	80.0	120	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	10 mg/kg wwt	93.9	80.0	120	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	10 mg/kg wwt	103	80.0	120	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	1 mg/kg wwt	99.2	80.0	120	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	500 mg/kg wwt	100	80.0	120	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	0.5 mg/kg wwt	96.1	80.0	120	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	100	80.0	120	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	97.9	80.0	120	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	2.5 mg/kg wwt	97.0	80.0	120	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	10 mg/kg wwt	98.7	80.0	120	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	5 mg/kg wwt	96.8	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1233616) - continued									
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	2.5 mg/kg wwt	104	80.0	120	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	500 mg/kg wwt	102	80.0	120	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	99.4	80.0	120	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	99.6	80.0	120	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	5 mg/kg wwt	98.1	80.0	120	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	100 mg/kg wwt	108	80.0	120	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	500 mg/kg wwt	101	80.0	120	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	1 mg/kg wwt	98.0	80.0	120	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	10 mg/kg wwt	101	80.0	120	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	500 mg/kg wwt	101	80.0	120	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	99.3	80.0	120	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	1 mg/kg wwt	98.5	80.0	120	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	10 mg/kg wwt	96.4	80.0	120	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	5 mg/kg wwt	97.4	80.0	120	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	0.05 mg/kg wwt	99.4	80.0	120	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	5 mg/kg wwt	101	80.0	120	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	5 mg/kg wwt	98.4	80.0	120	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	1 mg/kg wwt	98.4	80.0	120	----
Metals (QCLot: 1233617)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	99.4	80.0	120	----
Metals (QCLot: 1233618)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	104	80.0	120	----
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	101	80.0	120	----
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	106	80.0	120	----
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	102	80.0	120	----
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	103	80.0	120	----
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	93.9	80.0	120	----
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	103	80.0	120	----
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	99.2	80.0	120	----
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	100	80.0	120	----
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	96.1	80.0	120	----
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	100	80.0	120	----
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	97.9	80.0	120	----
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	97.0	80.0	120	----
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	98.7	80.0	120	----
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	96.8	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1233618) - continued									
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	104	80.0	120	----
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	102	80.0	120	----
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	99.4	80.0	120	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	99.6	80.0	120	----
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	98.1	80.0	120	----
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	108	80.0	120	----
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	101	80.0	120	----
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	98.0	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	101	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	101	80.0	120	----
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	99.3	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	98.5	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	96.4	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	97.4	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	99.4	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	101	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	98.4	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	98.4	80.0	120	----
Metals (QCLot: 1233619)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	99.4	80.0	120	----
Metals (QCLot: 1233620)									
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	20 mg/kg wwt	107	80.0	120	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	10 mg/kg wwt	101	80.0	120	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	10 mg/kg wwt	109	80.0	120	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	110	80.0	120	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	1 mg/kg wwt	104	80.0	120	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	10 mg/kg wwt	99.5	80.0	120	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	10 mg/kg wwt	104	80.0	120	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	1 mg/kg wwt	101	80.0	120	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	500 mg/kg wwt	102	80.0	120	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	0.5 mg/kg wwt	104	80.0	120	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	105	80.0	120	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	103	80.0	120	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	2.5 mg/kg wwt	102	80.0	120	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	10 mg/kg wwt	108	80.0	120	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	5 mg/kg wwt	102	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1233620) - continued									
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	2.5 mg/kg wwt	102	80.0	120	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	500 mg/kg wwt	102	80.0	120	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	104	80.0	120	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	104	80.0	120	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	5 mg/kg wwt	102	80.0	120	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	100 mg/kg wwt	112	80.0	120	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	500 mg/kg wwt	105	80.0	120	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	1 mg/kg wwt	105	80.0	120	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	10 mg/kg wwt	108	80.0	120	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	500 mg/kg wwt	103	80.0	120	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	104	80.0	120	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	1 mg/kg wwt	102	80.0	120	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	10 mg/kg wwt	99.2	80.0	120	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	5 mg/kg wwt	100	80.0	120	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	0.05 mg/kg wwt	103	80.0	120	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	5 mg/kg wwt	106	80.0	120	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	5 mg/kg wwt	102	80.0	120	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	1 mg/kg wwt	102	80.0	120	----
Metals (QCLot: 1233621)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	106	80.0	120	----
Metals (QCLot: 1233622)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	107	80.0	120	----
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	101	80.0	120	----
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	109	80.0	120	----
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	110	80.0	120	----
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	104	80.0	120	----
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	99.5	80.0	120	----
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	104	80.0	120	----
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	101	80.0	120	----
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	102	80.0	120	----
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	104	80.0	120	----
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	105	80.0	120	----
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	103	80.0	120	----
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	102	80.0	120	----
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	108	80.0	120	----
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	102	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1233622) - continued									
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	102	80.0	120	----
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	102	80.0	120	----
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	104	80.0	120	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	104	80.0	120	----
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	102	80.0	120	----
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	112	80.0	120	----
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	105	80.0	120	----
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	105	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	108	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	103	80.0	120	----
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	104	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	102	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	99.2	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	100	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	103	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	106	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	102	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	102	80.0	120	----
Metals (QCLot: 1233623)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	106	80.0	120	----
Metals (QCLot: 1234225)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	98.8	80.0	120	----
Metals (QCLot: 1234226)									
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	20 mg/kg wwt	111	80.0	120	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	10 mg/kg wwt	98.6	80.0	120	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	10 mg/kg wwt	110	80.0	120	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	114	80.0	120	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	1 mg/kg wwt	103	80.0	120	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	10 mg/kg wwt	102	80.0	120	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	10 mg/kg wwt	94.0	80.0	120	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	1 mg/kg wwt	103	80.0	120	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	500 mg/kg wwt	103	80.0	120	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	0.5 mg/kg wwt	105	80.0	120	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	110	80.0	120	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	108	80.0	120	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	2.5 mg/kg wwt	106	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1234226) - continued									
Iron	7439-89-6	E440A	0.6	mg/kg wwt	10 mg/kg wwt	107	80.0	120	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	5 mg/kg wwt	106	80.0	120	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	2.5 mg/kg wwt	103	80.0	120	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	500 mg/kg wwt	109	80.0	120	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	109	80.0	120	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	101	80.0	120	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	5 mg/kg wwt	108	80.0	120	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	100 mg/kg wwt	117	80.0	120	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	500 mg/kg wwt	113	80.0	120	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	1 mg/kg wwt	109	80.0	120	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	10 mg/kg wwt	103	80.0	120	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	500 mg/kg wwt	112	80.0	120	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	108	80.0	120	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	1 mg/kg wwt	98.5	80.0	120	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	10 mg/kg wwt	104	80.0	120	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	5 mg/kg wwt	98.7	80.0	120	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	0.05 mg/kg wwt	107	80.0	120	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	5 mg/kg wwt	111	80.0	120	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	5 mg/kg wwt	107	80.0	120	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	1 mg/kg wwt	97.8	80.0	120	----
Metals (QCLot: 1234227)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	111	80.0	120	----
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	98.6	80.0	120	----
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	110	80.0	120	----
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	114	80.0	120	----
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	103	80.0	120	----
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	102	80.0	120	----
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	94.0	80.0	120	----
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	103	80.0	120	----
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	103	80.0	120	----
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	105	80.0	120	----
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	110	80.0	120	----
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	108	80.0	120	----
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	106	80.0	120	----
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	107	80.0	120	----
Lead	7439-92-1	E440	0.02	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	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1234227) - continued									
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	103	80.0	120	----
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	109	80.0	120	----
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	109	80.0	120	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	101	80.0	120	----
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	108	80.0	120	----
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	117	80.0	120	----
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	113	80.0	120	----
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	109	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	103	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	112	80.0	120	----
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	108	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	98.5	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	104	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	98.7	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	107	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	111	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	107	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	97.8	80.0	120	----
Metals (QCLot: 1234228)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	98.8	80.0	120	----
Metals (QCLot: 1234256)									
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	20 mg/kg wwt	102	80.0	120	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	10 mg/kg wwt	97.1	80.0	120	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	10 mg/kg wwt	103	80.0	120	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	103	80.0	120	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	1 mg/kg wwt	98.7	80.0	120	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	10 mg/kg wwt	94.3	80.0	120	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	10 mg/kg wwt	99.6	80.0	120	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	1 mg/kg wwt	95.4	80.0	120	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	500 mg/kg wwt	98.9	80.0	120	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	0.5 mg/kg wwt	97.2	80.0	120	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	99.1	80.0	120	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	96.7	80.0	120	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	2.5 mg/kg wwt	95.6	80.0	120	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	10 mg/kg wwt	99.1	80.0	120	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	5 mg/kg wwt	98.5	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1234256) - continued									
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	2.5 mg/kg wwt	104	80.0	120	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	500 mg/kg wwt	99.1	80.0	120	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	97.4	80.0	120	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	98.7	80.0	120	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	5 mg/kg wwt	97.0	80.0	120	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	100 mg/kg wwt	108	80.0	120	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	500 mg/kg wwt	101	80.0	120	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	1 mg/kg wwt	97.5	80.0	120	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	10 mg/kg wwt	100	80.0	120	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	500 mg/kg wwt	97.6	80.0	120	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	101	80.0	120	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	1 mg/kg wwt	96.7	80.0	120	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	10 mg/kg wwt	98.0	80.0	120	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	5 mg/kg wwt	97.1	80.0	120	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	0.05 mg/kg wwt	97.4	80.0	120	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	5 mg/kg wwt	99.7	80.0	120	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	5 mg/kg wwt	95.6	80.0	120	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	1 mg/kg wwt	99.0	80.0	120	----
Metals (QCLot: 1234257)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	97.6	80.0	120	----
Metals (QCLot: 1234258)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	102	80.0	120	----
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	97.1	80.0	120	----
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	103	80.0	120	----
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	103	80.0	120	----
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	98.7	80.0	120	----
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	94.3	80.0	120	----
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	99.6	80.0	120	----
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	95.4	80.0	120	----
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	98.9	80.0	120	----
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	97.2	80.0	120	----
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	99.1	80.0	120	----
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	96.7	80.0	120	----
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	95.6	80.0	120	----
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	99.1	80.0	120	----
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	98.5	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1234258) - continued									
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	104	80.0	120	----
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	99.1	80.0	120	----
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	97.4	80.0	120	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	98.7	80.0	120	----
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	97.0	80.0	120	----
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	108	80.0	120	----
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	101	80.0	120	----
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	97.5	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	100	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	97.6	80.0	120	----
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	101	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	96.7	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	98.0	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	97.1	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	97.4	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	99.7	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	95.6	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	99.0	80.0	120	----
Metals (QCLot: 1234259)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	97.6	80.0	120	----
Metals (QCLot: 1242502)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	99.3	80.0	120	----
Metals (QCLot: 1242503)									
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	20 mg/kg wwt	106	80.0	120	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	10 mg/kg wwt	98.7	80.0	120	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	10 mg/kg wwt	106	80.0	120	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	107	80.0	120	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	1 mg/kg wwt	102	80.0	120	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	10 mg/kg wwt	107	80.0	120	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	10 mg/kg wwt	98.3	80.0	120	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	1 mg/kg wwt	98.5	80.0	120	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	500 mg/kg wwt	104	80.0	120	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	0.5 mg/kg wwt	103	80.0	120	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	107	80.0	120	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	104	80.0	120	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	2.5 mg/kg wwt	102	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1242503) - continued									
Iron	7439-89-6	E440A	0.6	mg/kg wwt	10 mg/kg wwt	107	80.0	120	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	5 mg/kg wwt	106	80.0	120	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	2.5 mg/kg wwt	105	80.0	120	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	500 mg/kg wwt	105	80.0	120	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	105	80.0	120	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	103	80.0	120	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	5 mg/kg wwt	105	80.0	120	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	100 mg/kg wwt	112	80.0	120	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	500 mg/kg wwt	107	80.0	120	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	1 mg/kg wwt	105	80.0	120	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	10 mg/kg wwt	102	80.0	120	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	500 mg/kg wwt	107	80.0	120	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	104	80.0	120	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	1 mg/kg wwt	98.3	80.0	120	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	10 mg/kg wwt	104	80.0	120	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	5 mg/kg wwt	98.2	80.0	120	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	0.05 mg/kg wwt	103	80.0	120	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	5 mg/kg wwt	108	80.0	120	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	5 mg/kg wwt	101	80.0	120	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	1 mg/kg wwt	101	80.0	120	----
Metals (QCLot: 1242504)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	106	80.0	120	----
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	98.7	80.0	120	----
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	106	80.0	120	----
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	107	80.0	120	----
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	102	80.0	120	----
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	107	80.0	120	----
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	98.3	80.0	120	----
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	98.5	80.0	120	----
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	104	80.0	120	----
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	103	80.0	120	----
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	107	80.0	120	----
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	104	80.0	120	----
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	102	80.0	120	----
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	107	80.0	120	----
Lead	7439-92-1	E440	0.02	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	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1242504) - continued									
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	105	80.0	120	----
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	105	80.0	120	----
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	105	80.0	120	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	103	80.0	120	----
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	105	80.0	120	----
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	112	80.0	120	----
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	107	80.0	120	----
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	105	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	102	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	107	80.0	120	----
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	104	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	98.3	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	104	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	98.2	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	103	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	108	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	101	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	101	80.0	120	----
Metals (QCLot: 1242505)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	99.3	80.0	120	----
Metals (QCLot: 1245183)									
Aluminum	7429-90-5	E472A	1	mg/kg wwt	20 mg/kg wwt	101	80.0	120	----
Antimony	7440-36-0	E472A	0.002	mg/kg wwt	10 mg/kg wwt	90.1	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	101	80.0	120	----
Beryllium	7440-41-7	E472A	0.002	mg/kg wwt	1 mg/kg wwt	97.3	80.0	120	----
Bismuth	7440-69-9	E472A	0.002	mg/kg wwt	10 mg/kg wwt	95.2	80.0	120	----
Boron	7440-42-8	E472A	0.2	mg/kg wwt	10 mg/kg wwt	93.4	80.0	120	----
Cadmium	7440-43-9	E472A	0.002	mg/kg wwt	1 mg/kg wwt	92.8	80.0	120	----
Calcium	7440-70-2	E472A	4	mg/kg wwt	500 mg/kg wwt	94.3	80.0	120	----
Cesium	7440-46-2	E472A	0.001	mg/kg wwt	0.5 mg/kg wwt	99.7	80.0	120	----
Chromium	7440-47-3	E472A	0.04	mg/kg wwt	2.5 mg/kg wwt	103	80.0	120	----
Cobalt	7440-48-4	E472A	0.004	mg/kg wwt	2.5 mg/kg wwt	99.3	80.0	120	----
Copper	7440-50-8	E472A	0.04	mg/kg wwt	2.5 mg/kg wwt	97.0	80.0	120	----
Iron	7439-89-6	E472A	1	mg/kg wwt	10 mg/kg wwt	99.7	80.0	120	----
Lead	7439-92-1	E472A	0.01	mg/kg wwt	5 mg/kg wwt	95.6	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1245183) - continued									
Lithium	7439-93-2	E472A	0.1	mg/kg wwt	2.5 mg/kg wwt	96.4	80.0	120	----
Magnesium	7439-95-4	E472A	0.4	mg/kg wwt	500 mg/kg wwt	99.7	80.0	120	----
Manganese	7439-96-5	E472A	0.01	mg/kg wwt	2.5 mg/kg wwt	102	80.0	120	----
Molybdenum	7439-98-7	E472A	0.008	mg/kg wwt	2.5 mg/kg wwt	94.7	80.0	120	----
Nickel	7440-02-0	E472A	0.04	mg/kg wwt	5 mg/kg wwt	99.8	80.0	120	----
Phosphorus	7723-14-0	E472A	2	mg/kg wwt	100 mg/kg wwt	104	80.0	120	----
Potassium	7440-09-7	E472A	4	mg/kg wwt	500 mg/kg wwt	100	80.0	120	----
Rubidium	7440-17-7	E472A	0.01	mg/kg wwt	1 mg/kg wwt	101	80.0	120	----
Selenium	7782-49-2	E472A	0.02	mg/kg wwt	10 mg/kg wwt	93.9	80.0	120	----
Sodium	7440-23-5	E472A	4	mg/kg wwt	500 mg/kg wwt	101	80.0	120	----
Strontium	7440-24-6	E472A	0.02	mg/kg wwt	2.5 mg/kg wwt	95.5	80.0	120	----
Tellurium	13494-80-9	E472A	0.004	mg/kg wwt	1 mg/kg wwt	89.6	80.0	120	----
Thallium	7440-28-0	E472A	0.0004	mg/kg wwt	10 mg/kg wwt	93.6	80.0	120	----
Tin	7440-31-5	E472A	0.02	mg/kg wwt	5 mg/kg wwt	92.9	80.0	120	----
Uranium	7440-61-1	E472A	0.0004	mg/kg wwt	0.05 mg/kg wwt	102	80.0	120	----
Vanadium	7440-62-2	E472A	0.02	mg/kg wwt	5 mg/kg wwt	104	80.0	120	----
Zinc	7440-66-6	E472A	0.2	mg/kg wwt	5 mg/kg wwt	98.1	80.0	120	----
Zirconium	7440-67-7	E472A	0.04	mg/kg wwt	1 mg/kg wwt	98.7	80.0	120	----
Metals (QCLot: 1245184)									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	91.0	80.0	120	----
Metals (QCLot: 1245185)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	91.0	80.0	120	----
Metals (QCLot: 1245186)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	101	80.0	120	----
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	90.1	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	101	80.0	120	----
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	97.3	80.0	120	----
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	95.2	80.0	120	----
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	93.4	80.0	120	----
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	92.8	80.0	120	----
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	94.3	80.0	120	----
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	99.7	80.0	120	----
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	103	80.0	120	----
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	99.3	80.0	120	----
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	97.0	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1245186) - continued									
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	99.7	80.0	120	----
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	95.6	80.0	120	----
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	96.4	80.0	120	----
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	99.7	80.0	120	----
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	102	80.0	120	----
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	94.7	80.0	120	----
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	99.8	80.0	120	----
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	104	80.0	120	----
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	100	80.0	120	----
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	101	80.0	120	----
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	93.9	80.0	120	----
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	101	80.0	120	----
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	95.5	80.0	120	----
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	89.6	80.0	120	----
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	93.6	80.0	120	----
Tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	92.9	80.0	120	----
Uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	102	80.0	120	----
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	104	80.0	120	----
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	98.1	80.0	120	----
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	98.7	80.0	120	----
Metals (QCLot: 1245196)									
Aluminum	7429-90-5	E472A	1	mg/kg wwt	20 mg/kg wwt	103	80.0	120	----
Antimony	7440-36-0	E472A	0.002	mg/kg wwt	10 mg/kg wwt	95.1	80.0	120	----
Arsenic	7440-38-2	E472A	0.006	mg/kg wwt	10 mg/kg wwt	104	80.0	120	----
Barium	7440-39-3	E472A	0.01	mg/kg wwt	2.5 mg/kg wwt	101	80.0	120	----
Beryllium	7440-41-7	E472A	0.002	mg/kg wwt	1 mg/kg wwt	96.8	80.0	120	----
Bismuth	7440-69-9	E472A	0.002	mg/kg wwt	10 mg/kg wwt	97.2	80.0	120	----
Boron	7440-42-8	E472A	0.2	mg/kg wwt	10 mg/kg wwt	89.3	80.0	120	----
Cadmium	7440-43-9	E472A	0.002	mg/kg wwt	1 mg/kg wwt	96.7	80.0	120	----
Calcium	7440-70-2	E472A	4	mg/kg wwt	500 mg/kg wwt	97.9	80.0	120	----
Cesium	7440-46-2	E472A	0.001	mg/kg wwt	0.5 mg/kg wwt	99.4	80.0	120	----
Chromium	7440-47-3	E472A	0.04	mg/kg wwt	2.5 mg/kg wwt	102	80.0	120	----
Cobalt	7440-48-4	E472A	0.004	mg/kg wwt	2.5 mg/kg wwt	98.8	80.0	120	----
Copper	7440-50-8	E472A	0.04	mg/kg wwt	2.5 mg/kg wwt	97.1	80.0	120	----
Iron	7439-89-6	E472A	1	mg/kg wwt	10 mg/kg wwt	99.5	80.0	120	----
Lead	7439-92-1	E472A	0.01	mg/kg wwt	5 mg/kg wwt	98.4	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1245196) - continued									
Lithium	7439-93-2	E472A	0.1	mg/kg wwt	2.5 mg/kg wwt	95.4	80.0	120	----
Magnesium	7439-95-4	E472A	0.4	mg/kg wwt	500 mg/kg wwt	101	80.0	120	----
Manganese	7439-96-5	E472A	0.01	mg/kg wwt	2.5 mg/kg wwt	102	80.0	120	----
Molybdenum	7439-98-7	E472A	0.008	mg/kg wwt	2.5 mg/kg wwt	97.8	80.0	120	----
Nickel	7440-02-0	E472A	0.04	mg/kg wwt	5 mg/kg wwt	99.6	80.0	120	----
Phosphorus	7723-14-0	E472A	2	mg/kg wwt	100 mg/kg wwt	105	80.0	120	----
Potassium	7440-09-7	E472A	4	mg/kg wwt	500 mg/kg wwt	101	80.0	120	----
Rubidium	7440-17-7	E472A	0.01	mg/kg wwt	1 mg/kg wwt	104	80.0	120	----
Selenium	7782-49-2	E472A	0.02	mg/kg wwt	10 mg/kg wwt	94.6	80.0	120	----
Sodium	7440-23-5	E472A	4	mg/kg wwt	500 mg/kg wwt	102	80.0	120	----
Strontium	7440-24-6	E472A	0.02	mg/kg wwt	2.5 mg/kg wwt	98.4	80.0	120	----
Tellurium	13494-80-9	E472A	0.004	mg/kg wwt	1 mg/kg wwt	94.4	80.0	120	----
Thallium	7440-28-0	E472A	0.0004	mg/kg wwt	10 mg/kg wwt	94.3	80.0	120	----
Tin	7440-31-5	E472A	0.02	mg/kg wwt	5 mg/kg wwt	95.1	80.0	120	----
Uranium	7440-61-1	E472A	0.0004	mg/kg wwt	0.05 mg/kg wwt	104	80.0	120	----
Vanadium	7440-62-2	E472A	0.02	mg/kg wwt	5 mg/kg wwt	104	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	97.9	80.0	120	----
Metals (QCLot: 1245197)									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	93.7	80.0	120	----
Metals (QCLot: 1245198)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	93.7	80.0	120	----
Metals (QCLot: 1245199)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	103	80.0	120	----
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	95.1	80.0	120	----
Arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	104	80.0	120	----
Barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	101	80.0	120	----
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	96.8	80.0	120	----
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	97.2	80.0	120	----
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	89.3	80.0	120	----
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	96.7	80.0	120	----
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	97.9	80.0	120	----
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	99.4	80.0	120	----
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	102	80.0	120	----
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	98.8	80.0	120	----
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	97.1	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1245199) - continued									
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	99.5	80.0	120	----
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	98.4	80.0	120	----
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	95.4	80.0	120	----
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	101	80.0	120	----
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	102	80.0	120	----
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	97.8	80.0	120	----
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	99.6	80.0	120	----
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	105	80.0	120	----
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	101	80.0	120	----
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	104	80.0	120	----
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	94.6	80.0	120	----
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	102	80.0	120	----
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	98.4	80.0	120	----
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	94.4	80.0	120	----
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	94.3	80.0	120	----
Tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	95.1	80.0	120	----
Uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	104	80.0	120	----
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	104	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	97.9	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: 1233616)									
	RM	Aluminum	7429-90-5	E440A	147 mg/kg wwt	105	70.0	130	----
	RM	Arsenic	7440-38-2	E440A	14.5 mg/kg wwt	89.2	70.0	130	----
	RM	Barium	7440-39-3	E440A	0.352 mg/kg wwt	88.1	70.0	130	----
	RM	Boron	7440-42-8	E440A	3.47 mg/kg wwt	101	70.0	130	----
	RM	Cadmium	7440-43-9	E440A	0.153 mg/kg wwt	90.8	70.0	130	----
	RM	Calcium	7440-70-2	E440A	2010 mg/kg wwt	94.8	70.0	130	----
	RM	Cesium	7440-46-2	E440A	0.0889 mg/kg wwt	87.5	70.0	130	----
	RM	Chromium	7440-47-3	E440A	0.453 mg/kg wwt	120	70.0	130	----
	RM	Cobalt	7440-48-4	E440A	0.0567 mg/kg wwt	88.9	65.0	135	----
	RM	Copper	7440-50-8	E440A	3.3 mg/kg wwt	90.4	70.0	130	----
	RM	Iron	7439-89-6	E440A	102 mg/kg wwt	93.5	70.0	130	----
	RM	Lead	7439-92-1	E440A	0.058 mg/kg wwt	91.5	70.0	130	----
	RM	Magnesium	7439-95-4	E440A	899 mg/kg wwt	92.2	70.0	130	----
	RM	Manganese	7439-96-5	E440A	0.948 mg/kg wwt	91.2	70.0	130	----
	RM	Molybdenum	7439-98-7	E440A	0.134 mg/kg wwt	88.7	70.0	130	----
	RM	Nickel	7440-02-0	E440A	0.33 mg/kg wwt	101	40.0	160	----
	RM	Phosphorus	7723-14-0	E440A	6700 mg/kg wwt	92.4	70.0	130	----
	RM	Potassium	7440-09-7	E440A	11600 mg/kg wwt	96.6	70.0	130	----
	RM	Rubidium	7440-17-7	E440A	2.53 mg/kg wwt	91.6	70.0	130	----
	RM	Selenium	7782-49-2	E440A	2.48 mg/kg wwt	95.9	70.0	130	----
	RM	Sodium	7440-23-5	E440A	9620 mg/kg wwt	92.7	70.0	130	----
	RM	Strontium	7440-24-6	E440A	10.6 mg/kg wwt	88.1	70.0	130	----
	RM	Vanadium	7440-62-2	E440A	0.269 mg/kg wwt	94.7	70.0	130	----
	RM	Zinc	7440-66-6	E440A	28.7 mg/kg wwt	92.8	70.0	130	----
Metals (QCLot: 1233617)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	104	70.0	130	----
Metals (QCLot: 1233618)									

Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Reference Material (RM) Report: Recovery (%) RM	Reference Material (RM) Report: Recovery Limits (%) Low	Reference Material (RM) Report: Recovery Limits (%) High	Reference Material (RM) Report: Qualifier
Metals (QCLot: 1233618) - continued									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	105	70.0	130	----
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	89.2	70.0	130	----
	RM	Barium	7440-39-3	E440	0.352 mg/kg	88.1	70.0	130	----
	RM	Boron	7440-42-8	E440	3.47 mg/kg	101	70.0	130	----
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	90.8	70.0	130	----
	RM	Calcium	7440-70-2	E440	2010 mg/kg	94.8	70.0	130	----
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	87.5	70.0	130	----
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	120	70.0	130	----
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	88.9	65.0	135	----
	RM	Copper	7440-50-8	E440	3.3 mg/kg	90.4	70.0	130	----
	RM	Iron	7439-89-6	E440	102 mg/kg	93.5	70.0	130	----
	RM	Lead	7439-92-1	E440	0.058 mg/kg	91.5	70.0	130	----
	RM	Magnesium	7439-95-4	E440	899 mg/kg	92.2	70.0	130	----
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	91.2	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	88.7	70.0	130	----
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	101	40.0	160	----
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	92.4	70.0	130	----
	RM	Potassium	7440-09-7	E440	11600 mg/kg	96.6	70.0	130	----
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	91.6	70.0	130	----
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	95.9	70.0	130	----
	RM	Sodium	7440-23-5	E440	9620 mg/kg	92.7	70.0	130	----
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	88.1	70.0	130	----
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	94.7	70.0	130	----
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	92.8	70.0	130	----
Metals (QCLot: 1233619)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	104	70.0	130	----
Metals (QCLot: 1233620)									
	RM	Aluminum	7429-90-5	E440A	147 mg/kg wwt	116	70.0	130	----
	RM	Arsenic	7440-38-2	E440A	14.5 mg/kg wwt	92.9	70.0	130	----
	RM	Barium	7440-39-3	E440A	0.352 mg/kg wwt	95.0	70.0	130	----
	RM	Boron	7440-42-8	E440A	3.47 mg/kg wwt	101	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: 1233620) - continued									
	RM	Cadmium	7440-43-9	E440A	0.153 mg/kg wwt	93.7	70.0	130	----
	RM	Calcium	7440-70-2	E440A	2010 mg/kg wwt	99.6	70.0	130	----
	RM	Cesium	7440-46-2	E440A	0.0889 mg/kg wwt	97.8	70.0	130	----
	RM	Chromium	7440-47-3	E440A	0.453 mg/kg wwt	99.8	70.0	130	----
	RM	Cobalt	7440-48-4	E440A	0.0567 mg/kg wwt	113	65.0	135	----
	RM	Copper	7440-50-8	E440A	3.3 mg/kg wwt	94.1	70.0	130	----
	RM	Iron	7439-89-6	E440A	102 mg/kg wwt	99.2	70.0	130	----
	RM	Lead	7439-92-1	E440A	0.058 mg/kg wwt	116	70.0	130	----
	RM	Magnesium	7439-95-4	E440A	899 mg/kg wwt	97.8	70.0	130	----
	RM	Manganese	7439-96-5	E440A	0.948 mg/kg wwt	96.2	70.0	130	----
	RM	Molybdenum	7439-98-7	E440A	0.134 mg/kg wwt	93.2	70.0	130	----
	RM	Nickel	7440-02-0	E440A	0.33 mg/kg wwt	97.5	40.0	160	----
	RM	Phosphorus	7723-14-0	E440A	6700 mg/kg wwt	95.0	70.0	130	----
	RM	Potassium	7440-09-7	E440A	11600 mg/kg wwt	96.7	70.0	130	----
	RM	Rubidium	7440-17-7	E440A	2.53 mg/kg wwt	93.6	70.0	130	----
	RM	Selenium	7782-49-2	E440A	2.48 mg/kg wwt	99.3	70.0	130	----
	RM	Sodium	7440-23-5	E440A	9620 mg/kg wwt	93.7	70.0	130	----
	RM	Strontium	7440-24-6	E440A	10.6 mg/kg wwt	92.6	70.0	130	----
	RM	Vanadium	7440-62-2	E440A	0.269 mg/kg wwt	105	70.0	130	----
	RM	Zinc	7440-66-6	E440A	28.7 mg/kg wwt	95.7	70.0	130	----
Metals (QCLot: 1233621)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	104	70.0	130	----
Metals (QCLot: 1233622)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	116	70.0	130	----
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	92.9	70.0	130	----
	RM	Barium	7440-39-3	E440	0.352 mg/kg	95.0	70.0	130	----
	RM	Boron	7440-42-8	E440	3.47 mg/kg	101	70.0	130	----
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	93.7	70.0	130	----
	RM	Calcium	7440-70-2	E440	2010 mg/kg	99.6	70.0	130	----
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	97.8	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: 1233622) - continued									
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	99.8	70.0	130	----
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	113	65.0	135	----
	RM	Copper	7440-50-8	E440	3.3 mg/kg	94.1	70.0	130	----
	RM	Iron	7439-89-6	E440	102 mg/kg	99.2	70.0	130	----
	RM	Lead	7439-92-1	E440	0.058 mg/kg	116	70.0	130	----
	RM	Magnesium	7439-95-4	E440	899 mg/kg	97.8	70.0	130	----
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	96.2	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	93.2	70.0	130	----
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	97.5	40.0	160	----
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	95.0	70.0	130	----
	RM	Potassium	7440-09-7	E440	11600 mg/kg	96.7	70.0	130	----
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	93.6	70.0	130	----
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	99.3	70.0	130	----
	RM	Sodium	7440-23-5	E440	9620 mg/kg	93.7	70.0	130	----
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	92.6	70.0	130	----
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	105	70.0	130	----
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	95.7	70.0	130	----
Metals (QCLot: 1233623)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	104	70.0	130	----
Metals (QCLot: 1234225)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	104	70.0	130	----
Metals (QCLot: 1234226)									
	RM	Aluminum	7429-90-5	E440A	147 mg/kg wwt	100	70.0	130	----
	RM	Arsenic	7440-38-2	E440A	14.5 mg/kg wwt	96.6	70.0	130	----
	RM	Barium	7440-39-3	E440A	0.352 mg/kg wwt	99.7	70.0	130	----
	RM	Boron	7440-42-8	E440A	3.47 mg/kg wwt	105	70.0	130	----
	RM	Cadmium	7440-43-9	E440A	0.153 mg/kg wwt	97.9	70.0	130	----
	RM	Calcium	7440-70-2	E440A	2010 mg/kg wwt	104	70.0	130	----
	RM	Cesium	7440-46-2	E440A	0.0889 mg/kg wwt	92.3	70.0	130	----
	RM	Chromium	7440-47-3	E440A	0.453 mg/kg wwt	96.3	70.0	130	----
	RM	Cobalt	7440-48-4	E440A	0.0567 mg/kg wwt	103	65.0	135	----

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: 1234226) - continued									
	RM	Copper	7440-50-8	E440A	3.3 mg/kg wwt	98.2	70.0	130	----
	RM	Iron	7439-89-6	E440A	102 mg/kg wwt	96.0	70.0	130	----
	RM	Lead	7439-92-1	E440A	0.058 mg/kg wwt	93.0	70.0	130	----
	RM	Magnesium	7439-95-4	E440A	899 mg/kg wwt	97.1	70.0	130	----
	RM	Manganese	7439-96-5	E440A	0.948 mg/kg wwt	99.0	70.0	130	----
	RM	Molybdenum	7439-98-7	E440A	0.134 mg/kg wwt	90.4	70.0	130	----
	RM	Nickel	7440-02-0	E440A	0.33 mg/kg wwt	94.7	40.0	160	----
	RM	Phosphorus	7723-14-0	E440A	6700 mg/kg wwt	100	70.0	130	----
	RM	Potassium	7440-09-7	E440A	11600 mg/kg wwt	103	70.0	130	----
	RM	Rubidium	7440-17-7	E440A	2.53 mg/kg wwt	94.5	70.0	130	----
	RM	Selenium	7782-49-2	E440A	2.48 mg/kg wwt	98.0	70.0	130	----
	RM	Sodium	7440-23-5	E440A	9620 mg/kg wwt	99.4	70.0	130	----
	RM	Strontium	7440-24-6	E440A	10.6 mg/kg wwt	94.1	70.0	130	----
	RM	Vanadium	7440-62-2	E440A	0.269 mg/kg wwt	95.7	70.0	130	----
	RM	Zinc	7440-66-6	E440A	28.7 mg/kg wwt	102	70.0	130	----
Metals (QCLot: 1234227)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	100	70.0	130	----
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	96.6	70.0	130	----
	RM	Barium	7440-39-3	E440	0.352 mg/kg	99.7	70.0	130	----
	RM	Boron	7440-42-8	E440	3.47 mg/kg	105	70.0	130	----
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	97.9	70.0	130	----
	RM	Calcium	7440-70-2	E440	2010 mg/kg	104	70.0	130	----
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	92.3	70.0	130	----
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	96.3	70.0	130	----
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	103	65.0	135	----
	RM	Copper	7440-50-8	E440	3.3 mg/kg	98.2	70.0	130	----
	RM	Iron	7439-89-6	E440	102 mg/kg	96.0	70.0	130	----
	RM	Lead	7439-92-1	E440	0.058 mg/kg	93.0	70.0	130	----
	RM	Magnesium	7439-95-4	E440	899 mg/kg	97.1	70.0	130	----
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	99.0	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	90.4	70.0	130	----

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: 1234227) - continued									
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	94.7	40.0	160	----
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	100	70.0	130	----
	RM	Potassium	7440-09-7	E440	11600 mg/kg	103	70.0	130	----
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	94.5	70.0	130	----
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	98.0	70.0	130	----
	RM	Sodium	7440-23-5	E440	9620 mg/kg	99.4	70.0	130	----
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	94.1	70.0	130	----
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	95.7	70.0	130	----
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	102	70.0	130	----
Metals (QCLot: 1234228)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	104	70.0	130	----
Metals (QCLot: 1234256)									
	RM	Aluminum	7429-90-5	E440A	147 mg/kg wwt	103	70.0	130	----
	RM	Arsenic	7440-38-2	E440A	14.5 mg/kg wwt	92.4	70.0	130	----
	RM	Barium	7440-39-3	E440A	0.352 mg/kg wwt	98.9	70.0	130	----
	RM	Boron	7440-42-8	E440A	3.47 mg/kg wwt	100	70.0	130	----
	RM	Cadmium	7440-43-9	E440A	0.153 mg/kg wwt	91.4	70.0	130	----
	RM	Calcium	7440-70-2	E440A	2010 mg/kg wwt	105	70.0	130	----
	RM	Cesium	7440-46-2	E440A	0.0889 mg/kg wwt	92.5	70.0	130	----
	RM	Chromium	7440-47-3	E440A	0.453 mg/kg wwt	106	70.0	130	----
	RM	Cobalt	7440-48-4	E440A	0.0567 mg/kg wwt	101	65.0	135	----
	RM	Copper	7440-50-8	E440A	3.3 mg/kg wwt	92.1	70.0	130	----
	RM	Iron	7439-89-6	E440A	102 mg/kg wwt	94.3	70.0	130	----
	RM	Lead	7439-92-1	E440A	0.058 mg/kg wwt	98.6	70.0	130	----
	RM	Magnesium	7439-95-4	E440A	899 mg/kg wwt	93.6	70.0	130	----
	RM	Manganese	7439-96-5	E440A	0.948 mg/kg wwt	94.2	70.0	130	----
	RM	Molybdenum	7439-98-7	E440A	0.134 mg/kg wwt	92.0	70.0	130	----
	RM	Nickel	7440-02-0	E440A	0.33 mg/kg wwt	99.1	40.0	160	----
	RM	Phosphorus	7723-14-0	E440A	6700 mg/kg wwt	96.8	70.0	130	----
	RM	Potassium	7440-09-7	E440A	11600 mg/kg wwt	96.4	70.0	130	----

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: 1234256) - continued									
	RM	Rubidium	7440-17-7	E440A	2.53 mg/kg wwt	92.6	70.0	130	----
	RM	Selenium	7782-49-2	E440A	2.48 mg/kg wwt	93.3	70.0	130	----
	RM	Sodium	7440-23-5	E440A	9620 mg/kg wwt	93.4	70.0	130	----
	RM	Strontium	7440-24-6	E440A	10.6 mg/kg wwt	94.6	70.0	130	----
	RM	Vanadium	7440-62-2	E440A	0.269 mg/kg wwt	93.9	70.0	130	----
	RM	Zinc	7440-66-6	E440A	28.7 mg/kg wwt	95.0	70.0	130	----
Metals (QCLot: 1234257)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	105	70.0	130	----
Metals (QCLot: 1234258)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	103	70.0	130	----
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	92.4	70.0	130	----
	RM	Barium	7440-39-3	E440	0.352 mg/kg	98.9	70.0	130	----
	RM	Boron	7440-42-8	E440	3.47 mg/kg	100	70.0	130	----
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	91.4	70.0	130	----
	RM	Calcium	7440-70-2	E440	2010 mg/kg	105	70.0	130	----
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	92.5	70.0	130	----
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	106	70.0	130	----
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	101	65.0	135	----
	RM	Copper	7440-50-8	E440	3.3 mg/kg	92.1	70.0	130	----
	RM	Iron	7439-89-6	E440	102 mg/kg	94.3	70.0	130	----
	RM	Lead	7439-92-1	E440	0.058 mg/kg	98.6	70.0	130	----
	RM	Magnesium	7439-95-4	E440	899 mg/kg	93.6	70.0	130	----
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	94.2	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	92.0	70.0	130	----
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	99.1	40.0	160	----
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	96.8	70.0	130	----
	RM	Potassium	7440-09-7	E440	11600 mg/kg	96.4	70.0	130	----
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	92.6	70.0	130	----
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	93.3	70.0	130	----
	RM	Sodium	7440-23-5	E440	9620 mg/kg	93.4	70.0	130	----
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	94.6	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: 1234258) - continued									
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	93.9	70.0	130	----
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	95.0	70.0	130	----
Metals (QCLot: 1234259)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	105	70.0	130	----
Metals (QCLot: 1242502)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	106	70.0	130	----
Metals (QCLot: 1242503)									
	RM	Aluminum	7429-90-5	E440A	147 mg/kg wwt	101	70.0	130	----
	RM	Arsenic	7440-38-2	E440A	14.5 mg/kg wwt	96.3	70.0	130	----
	RM	Barium	7440-39-3	E440A	0.352 mg/kg wwt	102	70.0	130	----
	RM	Boron	7440-42-8	E440A	3.47 mg/kg wwt	98.7	70.0	130	----
	RM	Cadmium	7440-43-9	E440A	0.153 mg/kg wwt	96.6	70.0	130	----
	RM	Calcium	7440-70-2	E440A	2010 mg/kg wwt	102	70.0	130	----
	RM	Cesium	7440-46-2	E440A	0.0889 mg/kg wwt	95.6	70.0	130	----
	RM	Chromium	7440-47-3	E440A	0.453 mg/kg wwt	119	70.0	130	----
	RM	Cobalt	7440-48-4	E440A	0.0567 mg/kg wwt	102	65.0	135	----
	RM	Copper	7440-50-8	E440A	3.3 mg/kg wwt	97.5	70.0	130	----
	RM	Iron	7439-89-6	E440A	102 mg/kg wwt	98.0	70.0	130	----
	RM	Lead	7439-92-1	E440A	0.058 mg/kg wwt	99.7	70.0	130	----
	RM	Magnesium	7439-95-4	E440A	899 mg/kg wwt	98.2	70.0	130	----
	RM	Manganese	7439-96-5	E440A	0.948 mg/kg wwt	101	70.0	130	----
	RM	Molybdenum	7439-98-7	E440A	0.134 mg/kg wwt	94.7	70.0	130	----
	RM	Nickel	7440-02-0	E440A	0.33 mg/kg wwt	100	40.0	160	----
	RM	Phosphorus	7723-14-0	E440A	6700 mg/kg wwt	106	70.0	130	----
	RM	Potassium	7440-09-7	E440A	11600 mg/kg wwt	102	70.0	130	----
	RM	Rubidium	7440-17-7	E440A	2.53 mg/kg wwt	103	70.0	130	----
	RM	Selenium	7782-49-2	E440A	2.48 mg/kg wwt	97.5	70.0	130	----
	RM	Sodium	7440-23-5	E440A	9620 mg/kg wwt	101	70.0	130	----
	RM	Strontium	7440-24-6	E440A	10.6 mg/kg wwt	94.5	70.0	130	----
	RM	Vanadium	7440-62-2	E440A	0.269 mg/kg wwt	97.6	70.0	130	----
	RM	Zinc	7440-66-6	E440A	28.7 mg/kg wwt	97.9	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: 1242504)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	101	70.0	130	----
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	96.3	70.0	130	----
	RM	Barium	7440-39-3	E440	0.352 mg/kg	102	70.0	130	----
	RM	Boron	7440-42-8	E440	3.47 mg/kg	98.7	70.0	130	----
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	96.6	70.0	130	----
	RM	Calcium	7440-70-2	E440	2010 mg/kg	102	70.0	130	----
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	95.6	70.0	130	----
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	119	70.0	130	----
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	102	65.0	135	----
	RM	Copper	7440-50-8	E440	3.3 mg/kg	97.5	70.0	130	----
	RM	Iron	7439-89-6	E440	102 mg/kg	98.0	70.0	130	----
	RM	Lead	7439-92-1	E440	0.058 mg/kg	99.7	70.0	130	----
	RM	Magnesium	7439-95-4	E440	899 mg/kg	98.2	70.0	130	----
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	101	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	94.7	70.0	130	----
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	100	40.0	160	----
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	106	70.0	130	----
	RM	Potassium	7440-09-7	E440	11600 mg/kg	102	70.0	130	----
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	103	70.0	130	----
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	97.5	70.0	130	----
	RM	Sodium	7440-23-5	E440	9620 mg/kg	101	70.0	130	----
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	94.5	70.0	130	----
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	97.6	70.0	130	----
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	97.9	70.0	130	----
Metals (QCLot: 1242505)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	106	70.0	130	----
Metals (QCLot: 1245183)									
	RM	Aluminum	7429-90-5	E472A	147 mg/kg wwt	96.4	70.0	130	----
	RM	Arsenic	7440-38-2	E472A	14.5 mg/kg wwt	104	70.0	130	----
	RM	Barium	7440-39-3	E472A	0.352 mg/kg wwt	95.8	70.0	130	----
	RM	Boron	7440-42-8	E472A	3.47 mg/kg wwt	90.3	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: 1245183) - continued									
	RM	Cadmium	7440-43-9	E472A	0.153 mg/kg wwt	102	70.0	130	----
	RM	Calcium	7440-70-2	E472A	2010 mg/kg wwt	103	70.0	130	----
	RM	Cesium	7440-46-2	E472A	0.0889 mg/kg wwt	97.4	70.0	130	----
	RM	Chromium	7440-47-3	E472A	0.453 mg/kg wwt	90.9	50.0	150	----
	RM	Cobalt	7440-48-4	E472A	0.0567 mg/kg wwt	103	65.0	135	----
	RM	Copper	7440-50-8	E472A	3.3 mg/kg wwt	99.1	70.0	130	----
	RM	Iron	7439-89-6	E472A	102 mg/kg wwt	97.2	70.0	130	----
	RM	Lead	7439-92-1	E472A	0.058 mg/kg wwt	95.7	15.0	185	----
	RM	Magnesium	7439-95-4	E472A	899 mg/kg wwt	101	70.0	130	----
	RM	Manganese	7439-96-5	E472A	0.948 mg/kg wwt	101	70.0	130	----
	RM	Molybdenum	7439-98-7	E472A	0.134 mg/kg wwt	92.9	70.0	130	----
	RM	Nickel	7440-02-0	E472A	0.33 mg/kg wwt	95.2	40.0	160	----
	RM	Phosphorus	7723-14-0	E472A	6700 mg/kg wwt	106	70.0	130	----
	RM	Potassium	7440-09-7	E472A	11600 mg/kg wwt	106	70.0	130	----
	RM	Rubidium	7440-17-7	E472A	2.53 mg/kg wwt	101	70.0	130	----
	RM	Selenium	7782-49-2	E472A	2.48 mg/kg wwt	102	70.0	130	----
	RM	Sodium	7440-23-5	E472A	9620 mg/kg wwt	104	70.0	130	----
	RM	Strontium	7440-24-6	E472A	10.6 mg/kg wwt	91.3	70.0	130	----
	RM	Vanadium	7440-62-2	E472A	0.269 mg/kg wwt	97.9	70.0	130	----
	RM	Zinc	7440-66-6	E472A	28.7 mg/kg wwt	103	70.0	130	----
Metals (QCLot: 1245184)									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	102	70.0	130	----
Metals (QCLot: 1245185)									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	102	70.0	130	----
Metals (QCLot: 1245186)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	96.4	70.0	130	----
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	104	70.0	130	----
	RM	Barium	7440-39-3	E472	0.352 mg/kg	95.8	70.0	130	----
	RM	Boron	7440-42-8	E472	3.47 mg/kg	90.3	70.0	130	----
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	102	70.0	130	----
	RM	Calcium	7440-70-2	E472	2010 mg/kg	103	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: 1245186) - continued									
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	97.4	70.0	130	----
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	90.9	50.0	150	----
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	103	65.0	135	----
	RM	Copper	7440-50-8	E472	3.3 mg/kg	99.1	70.0	130	----
	RM	Iron	7439-89-6	E472	102 mg/kg	97.2	70.0	130	----
	RM	Lead	7439-92-1	E472	0.058 mg/kg	95.7	15.0	185	----
	RM	Magnesium	7439-95-4	E472	899 mg/kg	101	70.0	130	----
	RM	Manganese	7439-96-5	E472	0.948 mg/kg	101	70.0	130	----
	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	92.9	70.0	130	----
	RM	Nickel	7440-02-0	E472	0.33 mg/kg	95.2	40.0	160	----
	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	106	70.0	130	----
	RM	Potassium	7440-09-7	E472	11600 mg/kg	106	70.0	130	----
	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	101	70.0	130	----
	RM	Selenium	7782-49-2	E472	2.48 mg/kg	102	70.0	130	----
	RM	Sodium	7440-23-5	E472	9620 mg/kg	104	70.0	130	----
	RM	Strontium	7440-24-6	E472	10.6 mg/kg	91.3	70.0	130	----
	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	97.9	70.0	130	----
	RM	Zinc	7440-66-6	E472	28.7 mg/kg	103	70.0	130	----
Metals (QCLot: 1245196)									
	RM	Aluminum	7429-90-5	E472A	147 mg/kg wwt	93.7	70.0	130	----
	RM	Arsenic	7440-38-2	E472A	14.5 mg/kg wwt	105	70.0	130	----
	RM	Barium	7440-39-3	E472A	0.352 mg/kg wwt	98.8	70.0	130	----
	RM	Boron	7440-42-8	E472A	3.47 mg/kg wwt	98.0	70.0	130	----
	RM	Cadmium	7440-43-9	E472A	0.153 mg/kg wwt	103	70.0	130	----
	RM	Calcium	7440-70-2	E472A	2010 mg/kg wwt	104	70.0	130	----
	RM	Cesium	7440-46-2	E472A	0.0889 mg/kg wwt	97.8	70.0	130	----
	RM	Chromium	7440-47-3	E472A	0.453 mg/kg wwt	95.4	50.0	150	----
	RM	Cobalt	7440-48-4	E472A	0.0567 mg/kg wwt	104	65.0	135	----
	RM	Copper	7440-50-8	E472A	3.3 mg/kg wwt	102	70.0	130	----
	RM	Iron	7439-89-6	E472A	102 mg/kg wwt	98.8	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: 1245196) - continued									
	RM	Lead	7439-92-1	E472A	0.058 mg/kg wwt	102	15.0	185	----
	RM	Magnesium	7439-95-4	E472A	899 mg/kg wwt	101	70.0	130	----
	RM	Manganese	7439-96-5	E472A	0.948 mg/kg wwt	106	70.0	130	----
	RM	Molybdenum	7439-98-7	E472A	0.134 mg/kg wwt	94.2	70.0	130	----
	RM	Nickel	7440-02-0	E472A	0.33 mg/kg wwt	102	40.0	160	----
	RM	Phosphorus	7723-14-0	E472A	6700 mg/kg wwt	104	70.0	130	----
	RM	Potassium	7440-09-7	E472A	11600 mg/kg wwt	107	70.0	130	----
	RM	Rubidium	7440-17-7	E472A	2.53 mg/kg wwt	103	70.0	130	----
	RM	Selenium	7782-49-2	E472A	2.48 mg/kg wwt	104	70.0	130	----
	RM	Sodium	7440-23-5	E472A	9620 mg/kg wwt	103	70.0	130	----
	RM	Strontium	7440-24-6	E472A	10.6 mg/kg wwt	92.8	70.0	130	----
	RM	Vanadium	7440-62-2	E472A	0.269 mg/kg wwt	97.2	70.0	130	----
	RM	Zinc	7440-66-6	E472A	28.7 mg/kg wwt	106	70.0	130	----
Metals (QCLot: 1245197)									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	107	70.0	130	----
Metals (QCLot: 1245198)									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	107	70.0	130	----
Metals (QCLot: 1245199)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	93.7	70.0	130	----
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	105	70.0	130	----
	RM	Barium	7440-39-3	E472	0.352 mg/kg	98.8	70.0	130	----
	RM	Boron	7440-42-8	E472	3.47 mg/kg	98.0	70.0	130	----
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	103	70.0	130	----
	RM	Calcium	7440-70-2	E472	2010 mg/kg	104	70.0	130	----
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	97.8	70.0	130	----
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	95.4	50.0	150	----
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	104	65.0	135	----
	RM	Copper	7440-50-8	E472	3.3 mg/kg	102	70.0	130	----
	RM	Iron	7439-89-6	E472	102 mg/kg	98.8	70.0	130	----
	RM	Lead	7439-92-1	E472	0.058 mg/kg	102	15.0	185	----
	RM	Magnesium	7439-95-4	E472	899 mg/kg	101	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: 1245199) - continued									
	RM	Manganese	7439-96-5	E472	0.948 mg/kg	106	70.0	130	----
	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	94.2	70.0	130	----
	RM	Nickel	7440-02-0	E472	0.33 mg/kg	102	40.0	160	----
	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	104	70.0	130	----
	RM	Potassium	7440-09-7	E472	11600 mg/kg	107	70.0	130	----
	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	103	70.0	130	----
	RM	Selenium	7782-49-2	E472	2.48 mg/kg	104	70.0	130	----
	RM	Sodium	7440-23-5	E472	9620 mg/kg	103	70.0	130	----
	RM	Strontium	7440-24-6	E472	10.6 mg/kg	92.8	70.0	130	----
	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	97.2	70.0	130	----
	RM	Zinc	7440-66-6	E472	28.7 mg/kg	106	70.0	130	----

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C2951**	Page	: 1 of 63
Client	: **Palmer Environmental Consulting Group Inc.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Accounts Payable	Account Manager	: Amber Springer
Address	: 470 Granville Street Suite 630 Vancouver BC Canada V6C 1V5	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: 647 795 8153	Telephone	: +1 604 253 4188
Project	: 2006506	Date Samples Received	: 26-Sep-2023 11:50
PO	: 15180	Issue Date	: 27-Nov-2023 08:23
C-O-C number	: ----		
Sampler	: Marissa Heppner		
Site	: ----		
Quote number	: VA23-BWGL100-002		
No. of samples received	: 108		
No. of samples analysed	: 102		

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: **Biota**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Duplicate (DUP) RPDs								
Metals	VA23C2951-049	KL-01_gn_20230921 _RB_2 carcass*	Iron	7439-89-6	E440	41.4 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA23C2951-049	KL-01_gn_20230921 _RB_2 carcass*	Iron	7439-89-6	E440A	41.4 % DUP-H	40%	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
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag KL-01_gn_20230922_MW_1 liver*	E511	22-Sep-2023	20-Nov-2023	365 days	60 days	✓	22-Nov-2023	365 days	62 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag KL-01_gn_20230922_MW_3 liver*	E511	22-Sep-2023	20-Nov-2023	365 days	60 days	✓	22-Nov-2023	365 days	62 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag KL-01_an_20230921_RB_1 liver*	E511	22-Sep-2023	20-Nov-2023	365 days	60 days	✓	24-Nov-2023	365 days	64 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag KL-01_an_20230921_RB_3 liver*	E511	22-Sep-2023	20-Nov-2023	365 days	60 days	✓	24-Nov-2023	365 days	64 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag KL-01_gn_20230921_RB_3 liver*	E511	22-Sep-2023	20-Nov-2023	365 days	60 days	✓	24-Nov-2023	365 days	64 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag KL-01_gn_20230922_MW_4 liver*	E511	22-Sep-2023	20-Nov-2023	365 days	60 days	✓	24-Nov-2023	365 days	64 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag KL-01_gn_20230922_MW_5 liver*	E511	22-Sep-2023	20-Nov-2023	365 days	60 days	✓	24-Nov-2023	365 days	64 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*	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TC-05 ef 22230911 RB _5	E511	22-Sep-2023	20-Nov-2023	365 days	60 days	✓	24-Nov-2023	365 days	64 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TC-05 mt 22230913 RB _2	E511	22-Sep-2023	20-Nov-2023	365 days	60 days	✓	24-Nov-2023	365 days	64 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag KL-01_gn_20230921_MW_10 liver*	E511	21-Sep-2023	20-Nov-2023	365 days	61 days	✓	22-Nov-2023	365 days	63 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag KL-01_gn_20230921_MW_11 liver*	E511	21-Sep-2023	20-Nov-2023	365 days	61 days	✓	22-Nov-2023	365 days	63 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag KL-01_gn_20230921_MW_7 liver*	E511	21-Sep-2023	20-Nov-2023	365 days	61 days	✓	22-Nov-2023	365 days	63 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag KL-01_gn_20230921_MW_9 liver*	E511	21-Sep-2023	20-Nov-2023	365 days	61 days	✓	22-Nov-2023	365 days	63 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag KL-01_gn_20230921_RB_2 liver*	E511	21-Sep-2023	20-Nov-2023	365 days	61 days	✓	22-Nov-2023	365 days	63 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag KL-01_gn_20230921_RB_4 liver*	E511	21-Sep-2023	20-Nov-2023	365 days	61 days	✓	22-Nov-2023	365 days	63 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag KL-01_gn_20230921_RB_6 liver*	E511	21-Sep-2023	20-Nov-2023	365 days	61 days	✓	22-Nov-2023	365 days	63 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*	
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag 705-10_ef_20230915_RB_5	E511	15-Sep-2023	20-Nov-2023	365 days	67 days	✓	22-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag 705-10_ef_20230915_RB_6	E511	15-Sep-2023	20-Nov-2023	365 days	67 days	✓	22-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag 705-10_ef_20230915_RB_7	E511	15-Sep-2023	20-Nov-2023	365 days	67 days	✓	22-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag 705-10_ef_20230915_RB_8	E511	15-Sep-2023	20-Nov-2023	365 days	67 days	✓	22-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag TC-10_ef_20230913_RB_8	E511	13-Sep-2023	20-Nov-2023	365 days	69 days	✓	22-Nov-2023	365 days	71 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag 661-10_ef_20230901_RB_3	E511	01-Sep-2023	20-Nov-2023	365 days	81 days	✓	22-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag 661-10_ef_20230901_RB_4	E511	01-Sep-2023	20-Nov-2023	365 days	81 days	✓	22-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag 661-10_ef_20230901_RB_5	E511	01-Sep-2023	20-Nov-2023	365 days	81 days	✓	22-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag 661-10_ef_20230901_RB_6	E511	01-Sep-2023	20-Nov-2023	365 days	81 days	✓	22-Nov-2023	365 days	83 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										
661-10_ef_20230901_RB_7	E511	01-Sep-2023	20-Nov-2023	365 days	81 days	✓	22-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag										
661-10_ef_20230901_RB_8	E511	01-Sep-2023	20-Nov-2023	365 days	81 days	✓	22-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag										
KL-01_an_20230921_RB_1 carcass*	E510	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	16-Nov-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag										
KL-01_an_20230921_RB_1 muscle*	E510	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	16-Nov-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag										
KL-01_an_20230921_RB_3 muscle*	E510	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	16-Nov-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag										
KL-01_gn_20230921_RB_3 carcass*	E510	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	16-Nov-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag										
KL-01_gn_20230921_RB_3 muscle*	E510	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	16-Nov-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag										
KL-01_gn_20230922_MW_2 muscle*	E510	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	16-Nov-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag										
KL-01_gn_20230922_MW_3 muscle*	E510	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	16-Nov-2023	365 days	56 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*	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230922_MW_4 muscle*	E510	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	16-Nov-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230922_MW_5 carcass*	E510	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	16-Nov-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230922_MW_5 muscle*	E510	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	16-Nov-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230922_MW_1 muscle*	E510	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	17-Nov-2023	365 days	57 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TC-05 ef 22230911 RB _3	E510	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	17-Nov-2023	365 days	57 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TC-05 ef 22230911 RB _4	E510	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	17-Nov-2023	365 days	57 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TC-05 ef 22230911 RB _6	E510	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	17-Nov-2023	365 days	57 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TC-05 ef 22230911 RB_1	E510	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	17-Nov-2023	365 days	57 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TC-05 ef 22230911 RB_2	E510	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	17-Nov-2023	365 days	57 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, Routine)										
LDPE bag TC-05 mt 22230913 RB _1	E510	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	17-Nov-2023	365 days	57 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_MW_11 carcass*	E510	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	16-Nov-2023	365 days	57 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_MW_11 muscle*	E510	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	16-Nov-2023	365 days	57 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_MW_10 muscle*	E510	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_MW_7 carcass*	E510	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_MW_7 muscle*	E510	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_MW_8 muscle*	E510	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_MW_9 carcass*	E510	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_MW_9 muscle*	E510	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 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*	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_RB_2 muscle*	E510	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_RB_4 carcass*	E510	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_RB_4 muscle*	E510	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_RB_5 carcass*	E510	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_RB_5 muscle*	E510	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_RB_6 muscle*	E510	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_an_20230921_RB_3 carcass*	E510	22-Sep-2023	17-Nov-2023	365 days	57 days	✓	20-Nov-2023	365 days	60 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230922_MW_1 carcass*	E510	22-Sep-2023	17-Nov-2023	365 days	57 days	✓	20-Nov-2023	365 days	60 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230922_MW_2 carcass*	E510	22-Sep-2023	17-Nov-2023	365 days	57 days	✓	20-Nov-2023	365 days	60 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, Routine)										
LDPE bag KL-01_gn_20230922_MW_2 liver*	E510	22-Sep-2023	17-Nov-2023	365 days	57 days	✓	20-Nov-2023	365 days	60 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230922_MW_3 carcass*	E510	22-Sep-2023	17-Nov-2023	365 days	57 days	✓	20-Nov-2023	365 days	60 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230922_MW_4 carcass*	E510	22-Sep-2023	17-Nov-2023	365 days	57 days	✓	20-Nov-2023	365 days	60 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_MW_10 carcass*	E510	21-Sep-2023	17-Nov-2023	365 days	58 days	✓	20-Nov-2023	365 days	61 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_MW_8 carcass*	E510	21-Sep-2023	17-Nov-2023	365 days	58 days	✓	20-Nov-2023	365 days	61 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_MW_8 liver*	E510	21-Sep-2023	17-Nov-2023	365 days	58 days	✓	20-Nov-2023	365 days	61 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_RB_2 carcass*	E510	21-Sep-2023	17-Nov-2023	365 days	58 days	✓	20-Nov-2023	365 days	61 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_RB_5 liver*	E510	21-Sep-2023	17-Nov-2023	365 days	58 days	✓	20-Nov-2023	365 days	61 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_RB_6 carcass*	E510	21-Sep-2023	17-Nov-2023	365 days	58 days	✓	20-Nov-2023	365 days	61 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*	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 705-10_ef_20230915_RB_1	E510	15-Sep-2023	15-Nov-2023	365 days	61 days	✓	17-Nov-2023	365 days	64 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 705-10_ef_20230915_RB_2	E510	15-Sep-2023	15-Nov-2023	365 days	61 days	✓	17-Nov-2023	365 days	64 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 705-10_ef_20230915_RB_3	E510	15-Sep-2023	15-Nov-2023	365 days	61 days	✓	17-Nov-2023	365 days	64 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 705-10_ef_20230915_RB_4	E510	15-Sep-2023	15-Nov-2023	365 days	61 days	✓	17-Nov-2023	365 days	64 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 661-05_ef_20230914_RB_1	E510	14-Sep-2023	15-Nov-2023	365 days	62 days	✓	17-Nov-2023	365 days	65 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 661-05_ef_20230914_RB_2	E510	14-Sep-2023	15-Nov-2023	365 days	62 days	✓	17-Nov-2023	365 days	65 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 661-05_ef_20230914_RB_3	E510	14-Sep-2023	15-Nov-2023	365 days	62 days	✓	17-Nov-2023	365 days	65 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TC-10_ef_20230913_RB_1	E510	13-Sep-2023	15-Nov-2023	365 days	63 days	✓	17-Nov-2023	365 days	66 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TC-10_ef_20230913_RB_2	E510	13-Sep-2023	15-Nov-2023	365 days	63 days	✓	17-Nov-2023	365 days	66 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*	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TC-10_ef_20230913_RB_3	E510	13-Sep-2023	15-Nov-2023	365 days	63 days	✓	17-Nov-2023	365 days	66 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TC-10_ef_20230913_RB_4	E510	13-Sep-2023	15-Nov-2023	365 days	63 days	✓	17-Nov-2023	365 days	66 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TC-10_ef_20230913_RB_5	E510	13-Sep-2023	15-Nov-2023	365 days	63 days	✓	17-Nov-2023	365 days	66 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TC-10_ef_20230913_RB_6	E510	13-Sep-2023	15-Nov-2023	365 days	63 days	✓	17-Nov-2023	365 days	66 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag TC-10_ef_20230913_RB_7	E510	13-Sep-2023	15-Nov-2023	365 days	63 days	✓	17-Nov-2023	365 days	66 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 705-05_ef_20230910_RB_1	E510	10-Sep-2023	15-Nov-2023	365 days	66 days	✓	17-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 705-05_ef_20230910_RB_2	E510	10-Sep-2023	15-Nov-2023	365 days	66 days	✓	17-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 705-05_ef_20230910_RB_3	E510	10-Sep-2023	15-Nov-2023	365 days	66 days	✓	17-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 705-05_ef_20230910_RB_4	E510	10-Sep-2023	15-Nov-2023	365 days	66 days	✓	17-Nov-2023	365 days	69 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*	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 705-05_ef_20230910_RB_5	E510	10-Sep-2023	15-Nov-2023	365 days	66 days	✓	17-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 705-05_ef_20230910_RB_6	E510	10-Sep-2023	15-Nov-2023	365 days	66 days	✓	17-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 705-05_ef_20230910_RB_7	E510	10-Sep-2023	15-Nov-2023	365 days	66 days	✓	17-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 705-05_ef_20230910_RB_8	E510	10-Sep-2023	15-Nov-2023	365 days	66 days	✓	17-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 661-04_ef_20230909_RB_1	E510	09-Sep-2023	15-Nov-2023	365 days	67 days	✓	17-Nov-2023	365 days	70 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 661-04_ef_20230909_RB_2	E510	09-Sep-2023	15-Nov-2023	365 days	67 days	✓	17-Nov-2023	365 days	70 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 661-04_ef_20230909_RB_3	E510	09-Sep-2023	15-Nov-2023	365 days	67 days	✓	17-Nov-2023	365 days	70 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 661-04_ef_20230909_RB_4	E510	09-Sep-2023	15-Nov-2023	365 days	67 days	✓	17-Nov-2023	365 days	70 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 661-04_ef_20230909_RB_5	E510	09-Sep-2023	15-Nov-2023	365 days	67 days	✓	17-Nov-2023	365 days	70 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*	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 661-04_ef_20230909_RB_6	E510	09-Sep-2023	15-Nov-2023	365 days	67 days	✓	17-Nov-2023	365 days	70 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 661-04_ef_20230909_RB_7	E510	09-Sep-2023	15-Nov-2023	365 days	67 days	✓	17-Nov-2023	365 days	70 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 661-04_ef_20230909_RB_8	E510	09-Sep-2023	15-Nov-2023	365 days	67 days	✓	17-Nov-2023	365 days	70 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 661-10_ef_20230901_RB_1	E510	01-Sep-2023	15-Nov-2023	365 days	75 days	✓	17-Nov-2023	365 days	78 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag 661-10_ef_20230901_RB_2	E510	01-Sep-2023	15-Nov-2023	365 days	75 days	✓	17-Nov-2023	365 days	78 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag KL-01_gn_20230922_MW_1 liver*	E511A	22-Sep-2023	20-Nov-2023	365 days	60 days	✓	22-Nov-2023	365 days	62 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag KL-01_gn_20230922_MW_3 liver*	E511A	22-Sep-2023	20-Nov-2023	365 days	60 days	✓	22-Nov-2023	365 days	62 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag KL-01_an_20230921_RB_1 liver*	E511A	22-Sep-2023	20-Nov-2023	365 days	60 days	✓	24-Nov-2023	365 days	64 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag KL-01_an_20230921_RB_3 liver*	E511A	22-Sep-2023	20-Nov-2023	365 days	60 days	✓	24-Nov-2023	365 days	64 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*	
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag KL-01_gn_20230921_RB_3 liver*	E511A	22-Sep-2023	20-Nov-2023	365 days	60 days	✓	24-Nov-2023	365 days	64 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag KL-01_gn_20230922_MW_4 liver*	E511A	22-Sep-2023	20-Nov-2023	365 days	60 days	✓	24-Nov-2023	365 days	64 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag KL-01_gn_20230922_MW_5 liver*	E511A	22-Sep-2023	20-Nov-2023	365 days	60 days	✓	24-Nov-2023	365 days	64 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TC-05 ef 22230911 RB _5	E511A	22-Sep-2023	20-Nov-2023	365 days	60 days	✓	24-Nov-2023	365 days	64 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TC-05 mt 22230913 RB _2	E511A	22-Sep-2023	20-Nov-2023	365 days	60 days	✓	24-Nov-2023	365 days	64 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag KL-01_gn_20230921_MW_10 liver*	E511A	21-Sep-2023	20-Nov-2023	365 days	61 days	✓	22-Nov-2023	365 days	63 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag KL-01_gn_20230921_MW_11 liver*	E511A	21-Sep-2023	20-Nov-2023	365 days	61 days	✓	22-Nov-2023	365 days	63 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag KL-01_gn_20230921_MW_7 liver*	E511A	21-Sep-2023	20-Nov-2023	365 days	61 days	✓	22-Nov-2023	365 days	63 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag KL-01_gn_20230921_MW_9 liver*	E511A	21-Sep-2023	20-Nov-2023	365 days	61 days	✓	22-Nov-2023	365 days	63 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*	
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag KL-01_gn_20230921_RB_2 liver*	E511A	21-Sep-2023	20-Nov-2023	365 days	61 days	✓	22-Nov-2023	365 days	63 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag KL-01_gn_20230921_RB_4 liver*	E511A	21-Sep-2023	20-Nov-2023	365 days	61 days	✓	22-Nov-2023	365 days	63 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag KL-01_gn_20230921_RB_6 liver*	E511A	21-Sep-2023	20-Nov-2023	365 days	61 days	✓	22-Nov-2023	365 days	63 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag 705-10_ef_20230915_RB_5	E511A	15-Sep-2023	20-Nov-2023	365 days	67 days	✓	22-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag 705-10_ef_20230915_RB_6	E511A	15-Sep-2023	20-Nov-2023	365 days	67 days	✓	22-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag 705-10_ef_20230915_RB_7	E511A	15-Sep-2023	20-Nov-2023	365 days	67 days	✓	22-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag 705-10_ef_20230915_RB_8	E511A	15-Sep-2023	20-Nov-2023	365 days	67 days	✓	22-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag TC-10_ef_20230913_RB_8	E511A	13-Sep-2023	20-Nov-2023	365 days	69 days	✓	22-Nov-2023	365 days	71 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag 661-10_ef_20230901_RB_3	E511A	01-Sep-2023	20-Nov-2023	365 days	81 days	✓	22-Nov-2023	365 days	83 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 units, Micro)										
LDPE bag 661-10_ef_20230901_RB_4	E511A	01-Sep-2023	20-Nov-2023	365 days	81 days	✓	22-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag 661-10_ef_20230901_RB_5	E511A	01-Sep-2023	20-Nov-2023	365 days	81 days	✓	22-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag 661-10_ef_20230901_RB_6	E511A	01-Sep-2023	20-Nov-2023	365 days	81 days	✓	22-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag 661-10_ef_20230901_RB_7	E511A	01-Sep-2023	20-Nov-2023	365 days	81 days	✓	22-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag 661-10_ef_20230901_RB_8	E511A	01-Sep-2023	20-Nov-2023	365 days	81 days	✓	22-Nov-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_an_20230921_RB_1 carcass*	E510A	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	16-Nov-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_an_20230921_RB_1 muscle*	E510A	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	16-Nov-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_an_20230921_RB_3 muscle*	E510A	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	16-Nov-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_RB_3 carcass*	E510A	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	16-Nov-2023	365 days	56 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*	
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_RB_3 muscle*	E510A	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	16-Nov-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230922_MW_2 muscle*	E510A	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	16-Nov-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230922_MW_3 muscle*	E510A	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	16-Nov-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230922_MW_4 muscle*	E510A	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	16-Nov-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230922_MW_5 carcass*	E510A	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	16-Nov-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230922_MW_5 muscle*	E510A	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	16-Nov-2023	365 days	56 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230922_MW_1 muscle*	E510A	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	17-Nov-2023	365 days	57 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TC-05 ef 22230911 RB _3	E510A	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	17-Nov-2023	365 days	57 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TC-05 ef 22230911 RB _4	E510A	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	17-Nov-2023	365 days	57 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 units, Routine)										
LDPE bag TC-05 ef 22230911 RB _6	E510A	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	17-Nov-2023	365 days	57 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TC-05 ef 22230911 RB_1	E510A	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	17-Nov-2023	365 days	57 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TC-05 ef 22230911 RB_2	E510A	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	17-Nov-2023	365 days	57 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag TC-05 mt 22230913 RB _1	E510A	22-Sep-2023	15-Nov-2023	365 days	54 days	✓	17-Nov-2023	365 days	57 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_MW_11 carcass*	E510A	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	16-Nov-2023	365 days	57 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_MW_11 muscle*	E510A	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	16-Nov-2023	365 days	57 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_MW_10 muscle*	E510A	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_MW_7 carcass*	E510A	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_MW_7 muscle*	E510A	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 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*	
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_MW_8 muscle*	E510A	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_MW_9 carcass*	E510A	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_MW_9 muscle*	E510A	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_RB_2 muscle*	E510A	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_RB_4 carcass*	E510A	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_RB_4 muscle*	E510A	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_RB_5 carcass*	E510A	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_RB_5 muscle*	E510A	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_RB_6 muscle*	E510A	21-Sep-2023	15-Nov-2023	365 days	55 days	✓	17-Nov-2023	365 days	58 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*	
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_an_20230921_RB_3 carcass*	E510A	22-Sep-2023	17-Nov-2023	365 days	57 days	✓	20-Nov-2023	365 days	60 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230922_MW_1 carcass*	E510A	22-Sep-2023	17-Nov-2023	365 days	57 days	✓	20-Nov-2023	365 days	60 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230922_MW_2 carcass*	E510A	22-Sep-2023	17-Nov-2023	365 days	57 days	✓	20-Nov-2023	365 days	60 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230922_MW_2 liver*	E510A	22-Sep-2023	17-Nov-2023	365 days	57 days	✓	20-Nov-2023	365 days	60 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230922_MW_3 carcass*	E510A	22-Sep-2023	17-Nov-2023	365 days	57 days	✓	20-Nov-2023	365 days	60 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230922_MW_4 carcass*	E510A	22-Sep-2023	17-Nov-2023	365 days	57 days	✓	20-Nov-2023	365 days	60 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_MW_10 carcass*	E510A	21-Sep-2023	17-Nov-2023	365 days	58 days	✓	20-Nov-2023	365 days	61 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_MW_8 carcass*	E510A	21-Sep-2023	17-Nov-2023	365 days	58 days	✓	20-Nov-2023	365 days	61 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_MW_8 liver*	E510A	21-Sep-2023	17-Nov-2023	365 days	58 days	✓	20-Nov-2023	365 days	61 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 units, Routine)										
LDPE bag KL-01_gn_20230921_RB_2 carcass*	E510A	21-Sep-2023	17-Nov-2023	365 days	58 days	✓	20-Nov-2023	365 days	61 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_RB_5 liver*	E510A	21-Sep-2023	17-Nov-2023	365 days	58 days	✓	20-Nov-2023	365 days	61 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_RB_6 carcass*	E510A	21-Sep-2023	17-Nov-2023	365 days	58 days	✓	20-Nov-2023	365 days	61 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 705-10_ef_20230915_RB_1	E510A	15-Sep-2023	15-Nov-2023	365 days	61 days	✓	17-Nov-2023	365 days	64 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 705-10_ef_20230915_RB_2	E510A	15-Sep-2023	15-Nov-2023	365 days	61 days	✓	17-Nov-2023	365 days	64 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 705-10_ef_20230915_RB_3	E510A	15-Sep-2023	15-Nov-2023	365 days	61 days	✓	17-Nov-2023	365 days	64 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 705-10_ef_20230915_RB_4	E510A	15-Sep-2023	15-Nov-2023	365 days	61 days	✓	17-Nov-2023	365 days	64 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 661-05_ef_20230914_RB_1	E510A	14-Sep-2023	15-Nov-2023	365 days	62 days	✓	17-Nov-2023	365 days	65 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 661-05_ef_20230914_RB_2	E510A	14-Sep-2023	15-Nov-2023	365 days	62 days	✓	17-Nov-2023	365 days	65 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*	
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag										
661-05_ef_20230914_RB_3	E510A	14-Sep-2023	15-Nov-2023	365 days	62 days	✓	17-Nov-2023	365 days	65 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag										
TC-10_ef_20230913_RB_1	E510A	13-Sep-2023	15-Nov-2023	365 days	63 days	✓	17-Nov-2023	365 days	66 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag										
TC-10_ef_20230913_RB_2	E510A	13-Sep-2023	15-Nov-2023	365 days	63 days	✓	17-Nov-2023	365 days	66 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag										
TC-10_ef_20230913_RB_3	E510A	13-Sep-2023	15-Nov-2023	365 days	63 days	✓	17-Nov-2023	365 days	66 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag										
TC-10_ef_20230913_RB_4	E510A	13-Sep-2023	15-Nov-2023	365 days	63 days	✓	17-Nov-2023	365 days	66 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag										
TC-10_ef_20230913_RB_5	E510A	13-Sep-2023	15-Nov-2023	365 days	63 days	✓	17-Nov-2023	365 days	66 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag										
TC-10_ef_20230913_RB_6	E510A	13-Sep-2023	15-Nov-2023	365 days	63 days	✓	17-Nov-2023	365 days	66 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag										
TC-10_ef_20230913_RB_7	E510A	13-Sep-2023	15-Nov-2023	365 days	63 days	✓	17-Nov-2023	365 days	66 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag										
705-05_ef_20230910_RB_1	E510A	10-Sep-2023	15-Nov-2023	365 days	66 days	✓	17-Nov-2023	365 days	69 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 units, Routine)										
LDPE bag 705-05_ef_20230910_RB_2	E510A	10-Sep-2023	15-Nov-2023	365 days	66 days	✓	17-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 705-05_ef_20230910_RB_3	E510A	10-Sep-2023	15-Nov-2023	365 days	66 days	✓	17-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 705-05_ef_20230910_RB_4	E510A	10-Sep-2023	15-Nov-2023	365 days	66 days	✓	17-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 705-05_ef_20230910_RB_5	E510A	10-Sep-2023	15-Nov-2023	365 days	66 days	✓	17-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 705-05_ef_20230910_RB_6	E510A	10-Sep-2023	15-Nov-2023	365 days	66 days	✓	17-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 705-05_ef_20230910_RB_7	E510A	10-Sep-2023	15-Nov-2023	365 days	66 days	✓	17-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 705-05_ef_20230910_RB_8	E510A	10-Sep-2023	15-Nov-2023	365 days	66 days	✓	17-Nov-2023	365 days	69 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 661-04_ef_20230909_RB_1	E510A	09-Sep-2023	15-Nov-2023	365 days	67 days	✓	17-Nov-2023	365 days	70 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 661-04_ef_20230909_RB_2	E510A	09-Sep-2023	15-Nov-2023	365 days	67 days	✓	17-Nov-2023	365 days	70 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*	
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 661-04_ef_20230909_RB_3	E510A	09-Sep-2023	15-Nov-2023	365 days	67 days	✓	17-Nov-2023	365 days	70 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 661-04_ef_20230909_RB_4	E510A	09-Sep-2023	15-Nov-2023	365 days	67 days	✓	17-Nov-2023	365 days	70 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 661-04_ef_20230909_RB_5	E510A	09-Sep-2023	15-Nov-2023	365 days	67 days	✓	17-Nov-2023	365 days	70 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 661-04_ef_20230909_RB_6	E510A	09-Sep-2023	15-Nov-2023	365 days	67 days	✓	17-Nov-2023	365 days	70 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 661-04_ef_20230909_RB_7	E510A	09-Sep-2023	15-Nov-2023	365 days	67 days	✓	17-Nov-2023	365 days	70 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 661-04_ef_20230909_RB_8	E510A	09-Sep-2023	15-Nov-2023	365 days	67 days	✓	17-Nov-2023	365 days	70 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 661-10_ef_20230901_RB_1	E510A	01-Sep-2023	15-Nov-2023	365 days	75 days	✓	17-Nov-2023	365 days	78 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag 661-10_ef_20230901_RB_2	E510A	01-Sep-2023	15-Nov-2023	365 days	75 days	✓	17-Nov-2023	365 days	78 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag KL-01_an_20230921_RB_1 liver*	E472	22-Sep-2023	20-Nov-2023	730 days	60 days	✓	22-Nov-2023	730 days	62 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*	
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag KL-01_an_20230921_RB_3 liver*	E472	22-Sep-2023	20-Nov-2023	730 days	60 days	✓	22-Nov-2023	730 days	62 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag KL-01_gn_20230921_RB_3 liver*	E472	22-Sep-2023	20-Nov-2023	730 days	60 days	✓	22-Nov-2023	730 days	62 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag KL-01_gn_20230922_MW_1 liver*	E472	22-Sep-2023	20-Nov-2023	730 days	60 days	✓	22-Nov-2023	730 days	62 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag KL-01_gn_20230922_MW_3 liver*	E472	22-Sep-2023	20-Nov-2023	730 days	60 days	✓	22-Nov-2023	730 days	62 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag KL-01_gn_20230922_MW_4 liver*	E472	22-Sep-2023	20-Nov-2023	730 days	60 days	✓	22-Nov-2023	730 days	62 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag KL-01_gn_20230922_MW_5 liver*	E472	22-Sep-2023	20-Nov-2023	730 days	60 days	✓	22-Nov-2023	730 days	62 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TC-05 ef 22230911 RB _5	E472	22-Sep-2023	20-Nov-2023	730 days	60 days	✓	22-Nov-2023	730 days	62 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TC-05 mt 22230913 RB _2	E472	22-Sep-2023	20-Nov-2023	730 days	60 days	✓	22-Nov-2023	730 days	62 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag KL-01_gn_20230921_MW_10 liver*	E472	21-Sep-2023	20-Nov-2023	730 days	61 days	✓	22-Nov-2023	730 days	63 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 KL-01_gn_20230921_MW_11 liver*	E472	21-Sep-2023	20-Nov-2023	730 days	61 days	✓	22-Nov-2023	730 days	63 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag KL-01_gn_20230921_MW_7 liver*	E472	21-Sep-2023	20-Nov-2023	730 days	61 days	✓	22-Nov-2023	730 days	63 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag KL-01_gn_20230921_MW_9 liver*	E472	21-Sep-2023	20-Nov-2023	730 days	61 days	✓	22-Nov-2023	730 days	63 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag KL-01_gn_20230921_RB_2 liver*	E472	21-Sep-2023	20-Nov-2023	730 days	61 days	✓	22-Nov-2023	730 days	63 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag KL-01_gn_20230921_RB_4 liver*	E472	21-Sep-2023	20-Nov-2023	730 days	61 days	✓	22-Nov-2023	730 days	63 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag KL-01_gn_20230921_RB_6 liver*	E472	21-Sep-2023	20-Nov-2023	730 days	61 days	✓	22-Nov-2023	730 days	63 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag 705-10_ef_20230915_RB_5	E472	15-Sep-2023	20-Nov-2023	730 days	67 days	✓	22-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag 705-10_ef_20230915_RB_6	E472	15-Sep-2023	20-Nov-2023	730 days	67 days	✓	22-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag 705-10_ef_20230915_RB_7	E472	15-Sep-2023	20-Nov-2023	730 days	67 days	✓	22-Nov-2023	730 days	69 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 705-10_ef_20230915_RB_8	E472	15-Sep-2023	20-Nov-2023	730 days	67 days	✓	22-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag TC-10_ef_20230913_RB_8	E472	13-Sep-2023	20-Nov-2023	730 days	69 days	✓	22-Nov-2023	730 days	71 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag 661-10_ef_20230901_RB_3	E472	01-Sep-2023	20-Nov-2023	730 days	81 days	✓	22-Nov-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag 661-10_ef_20230901_RB_4	E472	01-Sep-2023	20-Nov-2023	730 days	81 days	✓	22-Nov-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag 661-10_ef_20230901_RB_5	E472	01-Sep-2023	20-Nov-2023	730 days	81 days	✓	22-Nov-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag 661-10_ef_20230901_RB_6	E472	01-Sep-2023	20-Nov-2023	730 days	81 days	✓	22-Nov-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag 661-10_ef_20230901_RB_7	E472	01-Sep-2023	20-Nov-2023	730 days	81 days	✓	22-Nov-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag 661-10_ef_20230901_RB_8	E472	01-Sep-2023	20-Nov-2023	730 days	81 days	✓	22-Nov-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_an_20230921_RB_1 carcass*	E440	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	55 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, Routine)										
LDPE bag KL-01_an_20230921_RB_1 muscle*	E440	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_an_20230921_RB_3 muscle*	E440	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_RB_3 carcass*	E440	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_RB_3 muscle*	E440	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230922_MW_2 muscle*	E440	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230922_MW_3 muscle*	E440	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230922_MW_4 muscle*	E440	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230922_MW_5 carcass*	E440	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	55 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230922_MW_5 muscle*	E440	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	55 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*	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230922_MW_1 muscle*	E440	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TC-05 ef 22230911 RB _3	E440	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TC-05 ef 22230911 RB _4	E440	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TC-05 ef 22230911 RB _6	E440	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TC-05 ef 22230911 RB_1	E440	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TC-05 ef 22230911 RB_2	E440	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TC-05 mt 22230913 RB _1	E440	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_MW_11 carcass*	E440	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_MW_11 muscle*	E440	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	56 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, Routine)										
LDPE bag KL-01_gn_20230921_MW_10 muscle*	E440	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_MW_7 carcass*	E440	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_MW_7 muscle*	E440	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_MW_8 muscle*	E440	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_MW_9 carcass*	E440	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_MW_9 muscle*	E440	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_RB_2 muscle*	E440	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_RB_4 carcass*	E440	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_RB_4 muscle*	E440	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 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, Routine)										
LDPE bag KL-01_gn_20230921_RB_5 carcass*	E440	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_RB_5 muscle*	E440	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_RB_6 muscle*	E440	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_an_20230921_RB_3 carcass*	E440	22-Sep-2023	17-Nov-2023	730 days	57 days	✓	21-Nov-2023	730 days	60 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230922_MW_1 carcass*	E440	22-Sep-2023	17-Nov-2023	730 days	57 days	✓	21-Nov-2023	730 days	60 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230922_MW_2 carcass*	E440	22-Sep-2023	17-Nov-2023	730 days	57 days	✓	21-Nov-2023	730 days	60 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230922_MW_2 liver*	E440	22-Sep-2023	17-Nov-2023	730 days	57 days	✓	21-Nov-2023	730 days	60 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230922_MW_3 carcass*	E440	22-Sep-2023	17-Nov-2023	730 days	57 days	✓	21-Nov-2023	730 days	60 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230922_MW_4 carcass*	E440	22-Sep-2023	17-Nov-2023	730 days	57 days	✓	21-Nov-2023	730 days	60 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, Routine)										
LDPE bag KL-01_gn_20230921_MW_10 carcass*	E440	21-Sep-2023	17-Nov-2023	730 days	58 days	✓	21-Nov-2023	730 days	61 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_MW_8 carcass*	E440	21-Sep-2023	17-Nov-2023	730 days	58 days	✓	21-Nov-2023	730 days	61 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_MW_8 liver*	E440	21-Sep-2023	17-Nov-2023	730 days	58 days	✓	21-Nov-2023	730 days	61 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_RB_2 carcass*	E440	21-Sep-2023	17-Nov-2023	730 days	58 days	✓	21-Nov-2023	730 days	61 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_RB_5 liver*	E440	21-Sep-2023	17-Nov-2023	730 days	58 days	✓	21-Nov-2023	730 days	61 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag KL-01_gn_20230921_RB_6 carcass*	E440	21-Sep-2023	17-Nov-2023	730 days	58 days	✓	21-Nov-2023	730 days	61 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 705-10_ef_20230915_RB_1	E440	15-Sep-2023	15-Nov-2023	730 days	61 days	✓	16-Nov-2023	730 days	63 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 705-10_ef_20230915_RB_2	E440	15-Sep-2023	15-Nov-2023	730 days	61 days	✓	16-Nov-2023	730 days	63 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 705-10_ef_20230915_RB_3	E440	15-Sep-2023	15-Nov-2023	730 days	61 days	✓	16-Nov-2023	730 days	63 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*	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 705-10_ef_20230915_RB_4	E440	15-Sep-2023	15-Nov-2023	730 days	61 days	✓	16-Nov-2023	730 days	63 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 661-05_ef_20230914_RB_1	E440	14-Sep-2023	15-Nov-2023	730 days	62 days	✓	16-Nov-2023	730 days	64 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 661-05_ef_20230914_RB_2	E440	14-Sep-2023	15-Nov-2023	730 days	62 days	✓	16-Nov-2023	730 days	64 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 661-05_ef_20230914_RB_3	E440	14-Sep-2023	15-Nov-2023	730 days	62 days	✓	16-Nov-2023	730 days	64 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TC-10_ef_20230913_RB_1	E440	13-Sep-2023	15-Nov-2023	730 days	63 days	✓	16-Nov-2023	730 days	65 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TC-10_ef_20230913_RB_2	E440	13-Sep-2023	15-Nov-2023	730 days	63 days	✓	16-Nov-2023	730 days	65 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TC-10_ef_20230913_RB_3	E440	13-Sep-2023	15-Nov-2023	730 days	63 days	✓	16-Nov-2023	730 days	65 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TC-10_ef_20230913_RB_4	E440	13-Sep-2023	15-Nov-2023	730 days	63 days	✓	16-Nov-2023	730 days	65 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TC-10_ef_20230913_RB_5	E440	13-Sep-2023	15-Nov-2023	730 days	63 days	✓	16-Nov-2023	730 days	65 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*	
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TC-10_ef_20230913_RB_6	E440	13-Sep-2023	15-Nov-2023	730 days	63 days	✓	16-Nov-2023	730 days	65 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag TC-10_ef_20230913_RB_7	E440	13-Sep-2023	15-Nov-2023	730 days	63 days	✓	16-Nov-2023	730 days	65 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 705-05_ef_20230910_RB_1	E440	10-Sep-2023	15-Nov-2023	730 days	66 days	✓	16-Nov-2023	730 days	68 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 705-05_ef_20230910_RB_2	E440	10-Sep-2023	15-Nov-2023	730 days	66 days	✓	16-Nov-2023	730 days	68 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 705-05_ef_20230910_RB_3	E440	10-Sep-2023	15-Nov-2023	730 days	66 days	✓	16-Nov-2023	730 days	68 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 705-05_ef_20230910_RB_4	E440	10-Sep-2023	15-Nov-2023	730 days	66 days	✓	16-Nov-2023	730 days	68 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 705-05_ef_20230910_RB_5	E440	10-Sep-2023	15-Nov-2023	730 days	66 days	✓	16-Nov-2023	730 days	68 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 705-05_ef_20230910_RB_6	E440	10-Sep-2023	15-Nov-2023	730 days	66 days	✓	16-Nov-2023	730 days	68 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 705-05_ef_20230910_RB_7	E440	10-Sep-2023	15-Nov-2023	730 days	66 days	✓	16-Nov-2023	730 days	68 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, Routine)										
LDPE bag 705-05_ef_20230910_RB_8	E440	10-Sep-2023	15-Nov-2023	730 days	66 days	✓	16-Nov-2023	730 days	68 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 661-04_ef_20230909_RB_1	E440	09-Sep-2023	15-Nov-2023	730 days	67 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 661-04_ef_20230909_RB_2	E440	09-Sep-2023	15-Nov-2023	730 days	67 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 661-04_ef_20230909_RB_3	E440	09-Sep-2023	15-Nov-2023	730 days	67 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 661-04_ef_20230909_RB_4	E440	09-Sep-2023	15-Nov-2023	730 days	67 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 661-04_ef_20230909_RB_5	E440	09-Sep-2023	15-Nov-2023	730 days	67 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 661-04_ef_20230909_RB_6	E440	09-Sep-2023	15-Nov-2023	730 days	67 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 661-04_ef_20230909_RB_7	E440	09-Sep-2023	15-Nov-2023	730 days	67 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 661-04_ef_20230909_RB_8	E440	09-Sep-2023	15-Nov-2023	730 days	67 days	✓	16-Nov-2023	730 days	69 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, Routine)										
LDPE bag 661-10_ef_20230901_RB_1	E440	01-Sep-2023	15-Nov-2023	730 days	75 days	✓	16-Nov-2023	730 days	77 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag 661-10_ef_20230901_RB_2	E440	01-Sep-2023	15-Nov-2023	730 days	75 days	✓	16-Nov-2023	730 days	77 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag KL-01_an_20230921_RB_1 liver*	E472A	22-Sep-2023	20-Nov-2023	730 days	60 days	✓	22-Nov-2023	730 days	62 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag KL-01_an_20230921_RB_3 liver*	E472A	22-Sep-2023	20-Nov-2023	730 days	60 days	✓	22-Nov-2023	730 days	62 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag KL-01_gn_20230921_RB_3 liver*	E472A	22-Sep-2023	20-Nov-2023	730 days	60 days	✓	22-Nov-2023	730 days	62 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag KL-01_gn_20230922_MW_1 liver*	E472A	22-Sep-2023	20-Nov-2023	730 days	60 days	✓	22-Nov-2023	730 days	62 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag KL-01_gn_20230922_MW_3 liver*	E472A	22-Sep-2023	20-Nov-2023	730 days	60 days	✓	22-Nov-2023	730 days	62 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag KL-01_gn_20230922_MW_4 liver*	E472A	22-Sep-2023	20-Nov-2023	730 days	60 days	✓	22-Nov-2023	730 days	62 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag KL-01_gn_20230922_MW_5 liver*	E472A	22-Sep-2023	20-Nov-2023	730 days	60 days	✓	22-Nov-2023	730 days	62 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 units, Micro)										
LDPE bag TC-05 ef 22230911 RB _5	E472A	22-Sep-2023	20-Nov-2023	730 days	60 days	✓	22-Nov-2023	730 days	62 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag TC-05 mt 22230913 RB _2	E472A	22-Sep-2023	20-Nov-2023	730 days	60 days	✓	22-Nov-2023	730 days	62 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag KL-01_gn_20230921_MW_10 liver*	E472A	21-Sep-2023	20-Nov-2023	730 days	61 days	✓	22-Nov-2023	730 days	63 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag KL-01_gn_20230921_MW_11 liver*	E472A	21-Sep-2023	20-Nov-2023	730 days	61 days	✓	22-Nov-2023	730 days	63 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag KL-01_gn_20230921_MW_7 liver*	E472A	21-Sep-2023	20-Nov-2023	730 days	61 days	✓	22-Nov-2023	730 days	63 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag KL-01_gn_20230921_MW_9 liver*	E472A	21-Sep-2023	20-Nov-2023	730 days	61 days	✓	22-Nov-2023	730 days	63 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag KL-01_gn_20230921_RB_2 liver*	E472A	21-Sep-2023	20-Nov-2023	730 days	61 days	✓	22-Nov-2023	730 days	63 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag KL-01_gn_20230921_RB_4 liver*	E472A	21-Sep-2023	20-Nov-2023	730 days	61 days	✓	22-Nov-2023	730 days	63 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag KL-01_gn_20230921_RB_6 liver*	E472A	21-Sep-2023	20-Nov-2023	730 days	61 days	✓	22-Nov-2023	730 days	63 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 units, Micro)										
LDPE bag 705-10_ef_20230915_RB_5	E472A	15-Sep-2023	20-Nov-2023	730 days	67 days	✓	22-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag 705-10_ef_20230915_RB_6	E472A	15-Sep-2023	20-Nov-2023	730 days	67 days	✓	22-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag 705-10_ef_20230915_RB_7	E472A	15-Sep-2023	20-Nov-2023	730 days	67 days	✓	22-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag 705-10_ef_20230915_RB_8	E472A	15-Sep-2023	20-Nov-2023	730 days	67 days	✓	22-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag TC-10_ef_20230913_RB_8	E472A	13-Sep-2023	20-Nov-2023	730 days	69 days	✓	22-Nov-2023	730 days	71 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag 661-10_ef_20230901_RB_3	E472A	01-Sep-2023	20-Nov-2023	730 days	81 days	✓	22-Nov-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag 661-10_ef_20230901_RB_4	E472A	01-Sep-2023	20-Nov-2023	730 days	81 days	✓	22-Nov-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag 661-10_ef_20230901_RB_5	E472A	01-Sep-2023	20-Nov-2023	730 days	81 days	✓	22-Nov-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag 661-10_ef_20230901_RB_6	E472A	01-Sep-2023	20-Nov-2023	730 days	81 days	✓	22-Nov-2023	730 days	83 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 units, Micro)										
LDPE bag 661-10_ef_20230901_RB_7	E472A	01-Sep-2023	20-Nov-2023	730 days	81 days	✓	22-Nov-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag 661-10_ef_20230901_RB_8	E472A	01-Sep-2023	20-Nov-2023	730 days	81 days	✓	22-Nov-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_an_20230921_RB_1 carcass*	E440A	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_an_20230921_RB_1 muscle*	E440A	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_an_20230921_RB_3 muscle*	E440A	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_RB_3 carcass*	E440A	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_RB_3 muscle*	E440A	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230922_MW_1 muscle*	E440A	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230922_MW_2 muscle*	E440A	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 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 units, Routine)										
LDPE bag KL-01_gn_20230922_MW_3 muscle*	E440A	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230922_MW_4 muscle*	E440A	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230922_MW_5 carcass*	E440A	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230922_MW_5 muscle*	E440A	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TC-05 ef 22230911 RB _3	E440A	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TC-05 ef 22230911 RB _4	E440A	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TC-05 ef 22230911 RB _6	E440A	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TC-05 ef 22230911 RB_1	E440A	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TC-05 ef 22230911 RB_2	E440A	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 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 units, Routine)										
LDPE bag TC-05 mt 22230913 RB _1	E440A	22-Sep-2023	15-Nov-2023	730 days	54 days	✓	16-Nov-2023	730 days	56 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_MW_10 muscle*	E440A	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_MW_11 carcass*	E440A	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_MW_11 muscle*	E440A	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_MW_7 carcass*	E440A	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_MW_7 muscle*	E440A	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_MW_8 muscle*	E440A	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_MW_9 carcass*	E440A	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_MW_9 muscle*	E440A	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 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 units, Routine)										
LDPE bag KL-01_gn_20230921_RB_2 muscle*	E440A	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_RB_4 carcass*	E440A	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_RB_4 muscle*	E440A	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_RB_5 carcass*	E440A	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_RB_5 muscle*	E440A	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_RB_6 muscle*	E440A	21-Sep-2023	15-Nov-2023	730 days	55 days	✓	16-Nov-2023	730 days	57 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_an_20230921_RB_3 carcass*	E440A	22-Sep-2023	17-Nov-2023	730 days	57 days	✓	21-Nov-2023	730 days	60 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230922_MW_1 carcass*	E440A	22-Sep-2023	17-Nov-2023	730 days	57 days	✓	21-Nov-2023	730 days	60 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230922_MW_2 carcass*	E440A	22-Sep-2023	17-Nov-2023	730 days	57 days	✓	21-Nov-2023	730 days	60 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 units, Routine)										
LDPE bag KL-01_gn_20230922_MW_2 liver*	E440A	22-Sep-2023	17-Nov-2023	730 days	57 days	✓	21-Nov-2023	730 days	60 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230922_MW_3 carcass*	E440A	22-Sep-2023	17-Nov-2023	730 days	57 days	✓	21-Nov-2023	730 days	60 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230922_MW_4 carcass*	E440A	22-Sep-2023	17-Nov-2023	730 days	57 days	✓	21-Nov-2023	730 days	60 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_MW_10 carcass*	E440A	21-Sep-2023	17-Nov-2023	730 days	58 days	✓	21-Nov-2023	730 days	61 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_MW_8 carcass*	E440A	21-Sep-2023	17-Nov-2023	730 days	58 days	✓	21-Nov-2023	730 days	61 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_MW_8 liver*	E440A	21-Sep-2023	17-Nov-2023	730 days	58 days	✓	21-Nov-2023	730 days	61 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_RB_2 carcass*	E440A	21-Sep-2023	17-Nov-2023	730 days	58 days	✓	21-Nov-2023	730 days	61 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_RB_5 liver*	E440A	21-Sep-2023	17-Nov-2023	730 days	58 days	✓	21-Nov-2023	730 days	61 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag KL-01_gn_20230921_RB_6 carcass*	E440A	21-Sep-2023	17-Nov-2023	730 days	58 days	✓	21-Nov-2023	730 days	61 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 units, Routine)										
LDPE bag 705-10_ef_20230915_RB_1	E440A	15-Sep-2023	15-Nov-2023	730 days	61 days	✓	16-Nov-2023	730 days	63 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 705-10_ef_20230915_RB_2	E440A	15-Sep-2023	15-Nov-2023	730 days	61 days	✓	16-Nov-2023	730 days	63 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 705-10_ef_20230915_RB_3	E440A	15-Sep-2023	15-Nov-2023	730 days	61 days	✓	16-Nov-2023	730 days	63 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 705-10_ef_20230915_RB_4	E440A	15-Sep-2023	15-Nov-2023	730 days	61 days	✓	16-Nov-2023	730 days	63 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 661-05_ef_20230914_RB_1	E440A	14-Sep-2023	15-Nov-2023	730 days	62 days	✓	16-Nov-2023	730 days	64 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 661-05_ef_20230914_RB_2	E440A	14-Sep-2023	15-Nov-2023	730 days	62 days	✓	16-Nov-2023	730 days	64 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 661-05_ef_20230914_RB_3	E440A	14-Sep-2023	15-Nov-2023	730 days	62 days	✓	16-Nov-2023	730 days	64 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TC-10_ef_20230913_RB_1	E440A	13-Sep-2023	15-Nov-2023	730 days	63 days	✓	16-Nov-2023	730 days	65 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TC-10_ef_20230913_RB_2	E440A	13-Sep-2023	15-Nov-2023	730 days	63 days	✓	16-Nov-2023	730 days	65 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*	
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TC-10_ef_20230913_RB_3	E440A	13-Sep-2023	15-Nov-2023	730 days	63 days	✓	16-Nov-2023	730 days	65 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TC-10_ef_20230913_RB_4	E440A	13-Sep-2023	15-Nov-2023	730 days	63 days	✓	16-Nov-2023	730 days	65 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TC-10_ef_20230913_RB_5	E440A	13-Sep-2023	15-Nov-2023	730 days	63 days	✓	16-Nov-2023	730 days	65 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TC-10_ef_20230913_RB_6	E440A	13-Sep-2023	15-Nov-2023	730 days	63 days	✓	16-Nov-2023	730 days	65 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag TC-10_ef_20230913_RB_7	E440A	13-Sep-2023	15-Nov-2023	730 days	63 days	✓	16-Nov-2023	730 days	65 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 705-05_ef_20230910_RB_1	E440A	10-Sep-2023	15-Nov-2023	730 days	66 days	✓	16-Nov-2023	730 days	68 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 705-05_ef_20230910_RB_2	E440A	10-Sep-2023	15-Nov-2023	730 days	66 days	✓	16-Nov-2023	730 days	68 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 705-05_ef_20230910_RB_3	E440A	10-Sep-2023	15-Nov-2023	730 days	66 days	✓	16-Nov-2023	730 days	68 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 705-05_ef_20230910_RB_4	E440A	10-Sep-2023	15-Nov-2023	730 days	66 days	✓	16-Nov-2023	730 days	68 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 units, Routine)										
LDPE bag 705-05_ef_20230910_RB_5	E440A	10-Sep-2023	15-Nov-2023	730 days	66 days	✓	16-Nov-2023	730 days	68 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 705-05_ef_20230910_RB_6	E440A	10-Sep-2023	15-Nov-2023	730 days	66 days	✓	16-Nov-2023	730 days	68 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 705-05_ef_20230910_RB_7	E440A	10-Sep-2023	15-Nov-2023	730 days	66 days	✓	16-Nov-2023	730 days	68 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 705-05_ef_20230910_RB_8	E440A	10-Sep-2023	15-Nov-2023	730 days	66 days	✓	16-Nov-2023	730 days	68 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 661-04_ef_20230909_RB_1	E440A	09-Sep-2023	15-Nov-2023	730 days	67 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 661-04_ef_20230909_RB_2	E440A	09-Sep-2023	15-Nov-2023	730 days	67 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 661-04_ef_20230909_RB_3	E440A	09-Sep-2023	15-Nov-2023	730 days	67 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 661-04_ef_20230909_RB_4	E440A	09-Sep-2023	15-Nov-2023	730 days	67 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 661-04_ef_20230909_RB_5	E440A	09-Sep-2023	15-Nov-2023	730 days	67 days	✓	16-Nov-2023	730 days	69 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*	
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 661-04_ef_20230909_RB_6	E440A	09-Sep-2023	15-Nov-2023	730 days	67 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 661-04_ef_20230909_RB_7	E440A	09-Sep-2023	15-Nov-2023	730 days	67 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 661-04_ef_20230909_RB_8	E440A	09-Sep-2023	15-Nov-2023	730 days	67 days	✓	16-Nov-2023	730 days	69 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 661-10_ef_20230901_RB_1	E440A	01-Sep-2023	15-Nov-2023	730 days	75 days	✓	16-Nov-2023	730 days	77 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag 661-10_ef_20230901_RB_2	E440A	01-Sep-2023	15-Nov-2023	730 days	75 days	✓	16-Nov-2023	730 days	77 days	✓
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag KL-01_an_20230921_RB_1 liver*	E144-H	22-Sep-2023	----	----	----		20-Nov-2023	----	60 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag KL-01_an_20230921_RB_3 liver*	E144-H	22-Sep-2023	----	----	----		20-Nov-2023	----	60 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag KL-01_gn_20230921_RB_3 liver*	E144-H	22-Sep-2023	----	----	----		20-Nov-2023	----	60 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag KL-01_gn_20230922_MW_1 liver*	E144-H	22-Sep-2023	----	----	----		20-Nov-2023	----	60 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 : Moisture Content by Gravimetry (Micro)										
LDPE bag KL-01_gn_20230922_MW_3 liver*	E144-H	22-Sep-2023	----	----	----		20-Nov-2023	----	60 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag KL-01_gn_20230922_MW_4 liver*	E144-H	22-Sep-2023	----	----	----		20-Nov-2023	----	60 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag KL-01_gn_20230922_MW_5 liver*	E144-H	22-Sep-2023	----	----	----		20-Nov-2023	----	60 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TC-05 ef 22230911 RB _5	E144-H	22-Sep-2023	----	----	----		20-Nov-2023	----	60 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TC-05 mt 22230913 RB _2	E144-H	22-Sep-2023	----	----	----		20-Nov-2023	----	60 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag KL-01_gn_20230921_MW_10 liver*	E144-H	21-Sep-2023	----	----	----		20-Nov-2023	----	61 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag KL-01_gn_20230921_MW_11 liver*	E144-H	21-Sep-2023	----	----	----		20-Nov-2023	----	61 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag KL-01_gn_20230921_MW_7 liver*	E144-H	21-Sep-2023	----	----	----		20-Nov-2023	----	61 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag KL-01_gn_20230921_MW_9 liver*	E144-H	21-Sep-2023	----	----	----		20-Nov-2023	----	61 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 : Moisture Content by Gravimetry (Micro)										
LDPE bag KL-01_gn_20230921_RB_2 liver*	E144-H	21-Sep-2023	----	----	----		20-Nov-2023	----	61 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag KL-01_gn_20230921_RB_4 liver*	E144-H	21-Sep-2023	----	----	----		20-Nov-2023	----	61 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag KL-01_gn_20230921_RB_6 liver*	E144-H	21-Sep-2023	----	----	----		20-Nov-2023	----	61 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag 705-10_ef_20230915_RB_5	E144-H	15-Sep-2023	----	----	----		20-Nov-2023	----	67 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag 705-10_ef_20230915_RB_6	E144-H	15-Sep-2023	----	----	----		20-Nov-2023	----	67 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag 705-10_ef_20230915_RB_7	E144-H	15-Sep-2023	----	----	----		20-Nov-2023	----	67 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag 705-10_ef_20230915_RB_8	E144-H	15-Sep-2023	----	----	----		20-Nov-2023	----	67 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag TC-10_ef_20230913_RB_8	E144-H	13-Sep-2023	----	----	----		20-Nov-2023	----	69 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag 661-10_ef_20230901_RB_3	E144-H	01-Sep-2023	----	----	----		20-Nov-2023	----	81 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 : Moisture Content by Gravimetry (Micro)										
LDPE bag 661-10_ef_20230901_RB_4	E144-H	01-Sep-2023	----	----	----		20-Nov-2023	----	81 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag 661-10_ef_20230901_RB_5	E144-H	01-Sep-2023	----	----	----		20-Nov-2023	----	81 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag 661-10_ef_20230901_RB_6	E144-H	01-Sep-2023	----	----	----		20-Nov-2023	----	81 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag 661-10_ef_20230901_RB_7	E144-H	01-Sep-2023	----	----	----		20-Nov-2023	----	81 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag 661-10_ef_20230901_RB_8	E144-H	01-Sep-2023	----	----	----		20-Nov-2023	----	81 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_an_20230921_RB_1 carcass*	E144	22-Sep-2023	----	----	----		10-Nov-2023	----	50 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_an_20230921_RB_1 muscle*	E144	22-Sep-2023	----	----	----		10-Nov-2023	----	50 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_an_20230921_RB_3 muscle*	E144	22-Sep-2023	----	----	----		10-Nov-2023	----	50 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230921_RB_3 carcass*	E144	22-Sep-2023	----	----	----		10-Nov-2023	----	50 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 : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230921_RB_3 muscle*	E144	22-Sep-2023	----	----	----		10-Nov-2023	----	50 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230922_MW_1 muscle*	E144	22-Sep-2023	----	----	----		10-Nov-2023	----	50 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230922_MW_2 muscle*	E144	22-Sep-2023	----	----	----		10-Nov-2023	----	50 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230922_MW_3 muscle*	E144	22-Sep-2023	----	----	----		10-Nov-2023	----	50 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230922_MW_4 muscle*	E144	22-Sep-2023	----	----	----		10-Nov-2023	----	50 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230922_MW_5 carcass*	E144	22-Sep-2023	----	----	----		10-Nov-2023	----	50 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230922_MW_5 muscle*	E144	22-Sep-2023	----	----	----		10-Nov-2023	----	50 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230921_MW_10 muscle*	E144	21-Sep-2023	----	----	----		10-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230921_MW_11 carcass*	E144	21-Sep-2023	----	----	----		10-Nov-2023	----	51 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 : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230921_MW_11 muscle*	E144	21-Sep-2023	----	----	----		10-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230921_MW_7 carcass*	E144	21-Sep-2023	----	----	----		10-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230921_MW_7 muscle*	E144	21-Sep-2023	----	----	----		10-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230921_MW_8 muscle*	E144	21-Sep-2023	----	----	----		10-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230921_MW_9 carcass*	E144	21-Sep-2023	----	----	----		10-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230921_MW_9 muscle*	E144	21-Sep-2023	----	----	----		10-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230921_RB_2 muscle*	E144	21-Sep-2023	----	----	----		10-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230921_RB_4 carcass*	E144	21-Sep-2023	----	----	----		10-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230921_RB_4 muscle*	E144	21-Sep-2023	----	----	----		10-Nov-2023	----	51 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 : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230921_RB_5 carcass*	E144	21-Sep-2023	----	----	----		10-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230921_RB_5 muscle*	E144	21-Sep-2023	----	----	----		10-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230921_RB_6 muscle*	E144	21-Sep-2023	----	----	----		10-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TC-05 ef 22230911 RB _3	E144	22-Sep-2023	----	----	----		11-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TC-05 ef 22230911 RB _4	E144	22-Sep-2023	----	----	----		11-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TC-05 ef 22230911 RB _6	E144	22-Sep-2023	----	----	----		11-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TC-05 ef 22230911 RB_1	E144	22-Sep-2023	----	----	----		11-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TC-05 ef 22230911 RB_2	E144	22-Sep-2023	----	----	----		11-Nov-2023	----	51 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag TC-05 mt 22230913 RB _1	E144	22-Sep-2023	----	----	----		11-Nov-2023	----	51 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 : Moisture Content by Gravimetry										
LDPE bag KL-01_an_20230921_RB_3 carcass*	E144	22-Sep-2023	----	----	----		13-Nov-2023	----	53 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230922_MW_1 carcass*	E144	22-Sep-2023	----	----	----		13-Nov-2023	----	53 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230922_MW_2 carcass*	E144	22-Sep-2023	----	----	----		13-Nov-2023	----	53 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230922_MW_3 carcass*	E144	22-Sep-2023	----	----	----		13-Nov-2023	----	53 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230922_MW_4 carcass*	E144	22-Sep-2023	----	----	----		13-Nov-2023	----	53 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230921_MW_10 carcass*	E144	21-Sep-2023	----	----	----		13-Nov-2023	----	54 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230921_MW_8 carcass*	E144	21-Sep-2023	----	----	----		13-Nov-2023	----	54 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230921_RB_2 carcass*	E144	21-Sep-2023	----	----	----		13-Nov-2023	----	54 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230921_RB_6 carcass*	E144	21-Sep-2023	----	----	----		13-Nov-2023	----	54 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 : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230922_MW_2 liver*	E144	22-Sep-2023	----	----	----		16-Nov-2023	----	55 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230921_MW_8 liver*	E144	21-Sep-2023	----	----	----		16-Nov-2023	----	56 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag KL-01_gn_20230921_RB_5 liver*	E144	21-Sep-2023	----	----	----		16-Nov-2023	----	56 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 705-10_ef_20230915_RB_1	E144	15-Sep-2023	----	----	----		11-Nov-2023	----	58 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 705-10_ef_20230915_RB_2	E144	15-Sep-2023	----	----	----		11-Nov-2023	----	58 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 705-10_ef_20230915_RB_3	E144	15-Sep-2023	----	----	----		11-Nov-2023	----	58 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 705-10_ef_20230915_RB_4	E144	15-Sep-2023	----	----	----		11-Nov-2023	----	58 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 661-05_ef_20230914_RB_1	E144	14-Sep-2023	----	----	----		11-Nov-2023	----	59 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 661-05_ef_20230914_RB_2	E144	14-Sep-2023	----	----	----		11-Nov-2023	----	59 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 : Moisture Content by Gravimetry										
LDPE bag										
661-05_ef_20230914_RB_3	E144	14-Sep-2023	----	----	----		11-Nov-2023	----	59 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
TC-10_ef_20230913_RB_1	E144	13-Sep-2023	----	----	----		11-Nov-2023	----	60 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
TC-10_ef_20230913_RB_2	E144	13-Sep-2023	----	----	----		11-Nov-2023	----	60 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
TC-10_ef_20230913_RB_3	E144	13-Sep-2023	----	----	----		11-Nov-2023	----	60 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
TC-10_ef_20230913_RB_4	E144	13-Sep-2023	----	----	----		11-Nov-2023	----	60 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
TC-10_ef_20230913_RB_5	E144	13-Sep-2023	----	----	----		11-Nov-2023	----	60 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
TC-10_ef_20230913_RB_6	E144	13-Sep-2023	----	----	----		11-Nov-2023	----	60 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
TC-10_ef_20230913_RB_7	E144	13-Sep-2023	----	----	----		11-Nov-2023	----	60 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag										
705-05_ef_20230910_RB_1	E144	10-Sep-2023	----	----	----		11-Nov-2023	----	63 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 : Moisture Content by Gravimetry										
LDPE bag 705-05_ef_20230910_RB_2	E144	10-Sep-2023	----	----	----		11-Nov-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 705-05_ef_20230910_RB_3	E144	10-Sep-2023	----	----	----		11-Nov-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 705-05_ef_20230910_RB_4	E144	10-Sep-2023	----	----	----		11-Nov-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 705-05_ef_20230910_RB_5	E144	10-Sep-2023	----	----	----		11-Nov-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 705-05_ef_20230910_RB_6	E144	10-Sep-2023	----	----	----		11-Nov-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 705-05_ef_20230910_RB_7	E144	10-Sep-2023	----	----	----		11-Nov-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 705-05_ef_20230910_RB_8	E144	10-Sep-2023	----	----	----		11-Nov-2023	----	63 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 661-04_ef_20230909_RB_1	E144	09-Sep-2023	----	----	----		11-Nov-2023	----	64 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 661-04_ef_20230909_RB_2	E144	09-Sep-2023	----	----	----		11-Nov-2023	----	64 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 : Moisture Content by Gravimetry										
LDPE bag 661-04_ef_20230909_RB_3	E144	09-Sep-2023	----	----	----		11-Nov-2023	----	64 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 661-04_ef_20230909_RB_4	E144	09-Sep-2023	----	----	----		11-Nov-2023	----	64 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 661-04_ef_20230909_RB_5	E144	09-Sep-2023	----	----	----		11-Nov-2023	----	64 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 661-04_ef_20230909_RB_6	E144	09-Sep-2023	----	----	----		11-Nov-2023	----	64 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 661-04_ef_20230909_RB_7	E144	09-Sep-2023	----	----	----		11-Nov-2023	----	64 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 661-04_ef_20230909_RB_8	E144	09-Sep-2023	----	----	----		11-Nov-2023	----	64 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 661-10_ef_20230901_RB_1	E144	01-Sep-2023	----	----	----		11-Nov-2023	----	72 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag 661-10_ef_20230901_RB_2	E144	01-Sep-2023	----	----	----		11-Nov-2023	----	72 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)							
Mercury in Biota by CVAAS (DRY units, Micro)	E511	1245184	2	27	7.4	5.0	✓
Mercury in Biota by CVAAS (DRY units, Routine)	E510	1233619	5	77	6.4	5.0	✓
Mercury in Biota by CVAAS (WET units, Micro)	E511A	1245185	2	27	7.4	5.0	✓
Mercury in Biota by CVAAS (WET units, Routine)	E510A	1233617	5	77	6.4	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	1245186	2	27	7.4	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	1233618	6	77	7.7	5.0	✓
Metals in Biota by CRC ICPMS (WET units, Micro)	E472A	1245183	2	27	7.4	5.0	✓
Metals in Biota by CRC ICPMS (WET units, Routine)	E440A	1233616	6	77	7.7	5.0	✓
Moisture Content by Gravimetry	E144	1233611	6	78	7.6	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	1245182	2	27	7.4	5.0	✓
Laboratory Control Samples (LCS)							
Mercury in Biota by CVAAS (DRY units, Micro)	E511	1245184	4	27	14.8	10.0	✓
Mercury in Biota by CVAAS (DRY units, Routine)	E510	1233619	10	77	12.9	10.0	✓
Mercury in Biota by CVAAS (WET units, Micro)	E511A	1245185	4	27	14.8	10.0	✓
Mercury in Biota by CVAAS (WET units, Routine)	E510A	1233617	10	77	12.9	10.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	1245186	4	27	14.8	10.0	✓
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	1233618	10	77	12.9	10.0	✓
Metals in Biota by CRC ICPMS (WET units, Micro)	E472A	1245183	4	27	14.8	10.0	✓
Metals in Biota by CRC ICPMS (WET units, Routine)	E440A	1233616	10	77	12.9	10.0	✓
Moisture Content by Gravimetry	E144	1233611	6	78	7.6	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	1245182	2	27	7.4	5.0	✓
Method Blanks (MB)							
Mercury in Biota by CVAAS (DRY units, Micro)	E511	1245184	2	27	7.4	5.0	✓
Mercury in Biota by CVAAS (DRY units, Routine)	E510	1233619	5	77	6.4	5.0	✓
Mercury in Biota by CVAAS (WET units, Micro)	E511A	1245185	2	27	7.4	5.0	✓
Mercury in Biota by CVAAS (WET units, Routine)	E510A	1233617	5	77	6.4	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	1245186	2	27	7.4	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	1233618	5	77	6.4	5.0	✓
Metals in Biota by CRC ICPMS (WET units, Micro)	E472A	1245183	2	27	7.4	5.0	✓
Metals in Biota by CRC ICPMS (WET units, Routine)	E440A	1233616	5	77	6.4	5.0	✓
Moisture Content by Gravimetry	E144	1233611	6	78	7.6	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	1245182	2	27	7.4	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
Moisture Content by Gravimetry	E144 ALS Environmental - Vancouver	Biota	Puget Sound Water Quality Authority/CCME PHC in Soil - Tier 1	Moisture is measured gravimetrically by drying the sample at 105°C. 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	Puget Sound Water Quality Authority/BC MOE Lab Manual	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 soil, expressed as a percentage.
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440 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 units, Routine)	E440A 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 (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 units, 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.
Mercury in Biota by CVAAS (DRY units, Routine)	E510 ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with HNO3, HCl, and H2O2. Analysis is by CVAAS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Mercury in Biota by CVAAS (WET units, Routine)	E510A ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with HNO3, HCl, and H2O2. Analysis is by CVAAS.
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 units, 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.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Metals and Mercury Biota Digestion	EP440 ALS Environmental - Vancouver	Biota	EPA 200.3	This method 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 (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.

WO#	Client ID	Fish total Body Weight (g)	Liver Weight (g)	Muscle Tissue weight (g)
VA23C2951-001	661-10_ef_20230901_RB_1	10.291		
VA23C2951-002	661-10_ef_20230901_RB_2	9.006		
VA23C2951-003	661-10_ef_20230901_RB_3	4.56		
VA23C2951-004	661-10_ef_20230901_RB_4	4.224		
VA23C2951-005	661-10_ef_20230901_RB_5	5.471		
VA23C2951-006	661-10_ef_20230901_RB_6	3.747		
VA23C2951-007	661-10_ef_20230901_RB_7	3.781		
VA23C2951-008	661-10_ef_20230901_RB_8	3.505		
VA23C2951-009	661-04_ef_20230909_RB_1	15.293		
VA23C2951-010	661-04_ef_20230909_RB_2	6.85		
VA23C2951-011	661-04_ef_20230909_RB_3	11.264		
VA23C2951-012	661-04_ef_20230909_RB_4	11.312		
VA23C2951-013	661-04_ef_20230909_RB_5	12.65		
VA23C2951-014	661-04_ef_20230909_RB_6	9.68		
VA23C2951-015	661-04_ef_20230909_RB_7	10.785		
VA23C2951-016	661-04_ef_20230909_RB_8	19.749		
VA23C2951-017	705-05_ef_20230910_RB_1	10.341		
VA23C2951-018	705-05_ef_20230910_RB_2	12.291		
VA23C2951-019	705-05_ef_20230910_RB_3	6.487		
VA23C2951-020	705-05_ef_20230910_RB_4	16.302		
VA23C2951-021	705-05_ef_20230910_RB_5	16.883		
VA23C2951-022	705-05_ef_20230910_RB_6	5.428		
VA23C2951-023	705-05_ef_20230910_RB_7	7.855		
VA23C2951-024	705-05_ef_20230910_RB_8	5.19		
VA23C2951-025	TC-10_ef_20230913_RB_1	8.062		
VA23C2951-026	TC-10_ef_20230913_RB_2	5.811		
VA23C2951-027	TC-10_ef_20230913_RB_3	6.566		
VA23C2951-028	TC-10_ef_20230913_RB_4	5.404		
VA23C2951-029	TC-10_ef_20230913_RB_5	5.696		
VA23C2951-030	TC-10_ef_20230913_RB_6	3.999		
VA23C2951-031	TC-10_ef_20230913_RB_7	4.857		
VA23C2951-032	TC-10_ef_20230913_RB_8	1.646		
VA23C2951-033	705-10_ef_20230915_RB_1	9.481		
VA23C2951-034	705-10_ef_20230915_RB_2	6.987		
VA23C2951-035	705-10_ef_20230915_RB_3	8.729		
VA23C2951-036	705-10_ef_20230915_RB_4	5.77		
VA23C2951-037	705-10_ef_20230915_RB_5	3.91		
VA23C2951-038	**705-10_ef_20230915_RB_6**	**1.692**		
VA23C2951-039	**705-10_ef_20230915_RB_7**	**0.92**		
VA23C2951-040	705-10_ef_20230915_RB_8	0.853		
VA23C2951-041	661-05_ef_20230914_RB_1	64.549		
VA23C2951-042	661-05_ef_20230914_RB_2	40.385		
VA23C2951-043	661-05_ef_20230914_RB_3	36.761		
VA23C2951-044-045-046	KL-01_gn_20230921_RB_1	620	9.119	67.112
VA23C2951-047-048-049	KL-01_gn_20230921_RB_2	360	4.661	38.509
VA23C2951-050-051-052	KL-01_gn_20230922_MW_1	480	1.747	54.918
VA23C2951-053-054-055	KL-01_gn_20230921_RB_6	540	5.337	57.964
VA23C2951-056-057-058	KL-01_gn_20230921_MW_8	700	9.48	71.883
VA23C2951-059-060-061	KL-01_gn_20230921_MW_7	360	4.872	40.7687
VA23C2951-065-066-067	KL-01_gn_20230921_RB_4	360	4.393	40.528
VA23C2951-068-069-070	KL-01_gn_20230921_RB_5	660	6.3721	73.5396
VA23C2951-077-078-079	KL-01_gn_20230921_MW_9	280	3.7073	32.1312
VA23C2951-083-084-085	KL-01_gn_20230921_MW_10	280	1.257	34.7559
VA23C2951-086-087-088	KL-01_gn_20230921_MW_11	240	0.8789	28.3207
VA23C2951-089-090-091	KL-01_gn_20230922_MW_2	660	8.8335	70.1556
VA23C2951-092-093-094	KL-01_gn_20230922_MW_3	340	4.6155	35.3976
VA23C2951-095-096-097	KL-01_gn_20230922_MW_4	340	4.7791	38.2879
VA23C2951-098-099-100	KL-01_gn_20230922_MW_5	220	1.1306	20.5991
VA23C2951-101	TC-05 ef 22230911 RB_1	8.686		
VA23C2951-102	TC-05 ef 22230911 RB_2	35.023		
VA23C2951-103	TC-05 ef 22230911 RB _3	6.384		
VA23C2951-104	TC-05 ef 22230911 RB _4	6.951		
VA23C2951-105	TC-05 ef 22230911 RB _5	2.067		
VA23C2951-106	TC-05 ef 22230911 RB _6	24.226		
VA23C2951-107	TC-05 mt 22230913 RB _1	29.766		
VA23C2951-108	TC-05 mt 22230913 RB _2	6.562		
VA23C2951-109-110-111	KL-01_an_20230921_RB_1	460	4.4023	53.2581
VA23C2951-112-113-114	KL-01_an_20230921_RB_3	640	4.6271	61.8274
VA23C2951-115-116-117	KL-01_gn_20230921_RB_3	480	2.5399	52.9977
VA23C2951-118-119-120	KL-01_an_20230921_RB_2	420	2.7769	36.3079

Chain of Custody (COC) / Analytical Request Form

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Canada Toll Free: 1 800 668 9878

COC Number: 20 -

Page 8 of 14

Environmental Division Vancouver
Work Order Reference
VA23C2951

Telephone : + 1 604 253 4188

Report To	Contact and company name below will appear on the final report
Company:	Palmer Environmental Consulting Group
Contact:	Marissa Heppner
Phone:	604 703 9810 / marissa.heppner@pecg.ca
	Company address below will appear on the final report
Street:	470 Granville Street #630
City/Province:	Vancouver, BC
Postal Code:	V6C 1V5
Invoice To	Same as Report To ☐ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Ltd.
Contact:	Accounts Payable

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~~ ~~marissa.heppner@pecg.ca~~
Email 2 ktanaka@artemisgoldinc.com
Email 3 lshelley@entiaenviro.com

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax accounts@artemisgoldinc.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 minim
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minir
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minir
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minir
☐ Same day [E2] if received by 10am M-S - 200% rush surcharg
Additional fees may apply to rush requests on weekend

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		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	VA23-BWGL100-002	AFE/Cost Center:	PO#
Job #:	2006506	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (ALS use only): ALS Contact: Amber Springer Sampler: Marissa Heppn

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 incl. mercury	Arsenic speciation	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	661-10_ef_20230901_RB_1	1-Sep-23	-	Frozen Fish	1	R	R				
	661-10_ef_20230901_RB_2	1-Sep-23	-	Frozen Fish	1	R	R				
	661-10_ef_20230901_RB_3	1-Sep-23	-	Frozen Fish	1	R	R				
	661-10_ef_20230901_RB_4	1-Sep-23	-	Frozen Fish	1	R	R				
	661-10_ef_20230901_RB_5	1-Sep-23	-	Frozen Fish	1	R	R				
	661-10_ef_20230901_RB_6	1-Sep-23	-	Frozen Fish	1	R	R				
	661-10_ef_20230901_RB_7	1-Sep-23	-	Frozen Fish	1	R	R				
	661-10_ef_20230901_RB_8	1-Sep-23	-	Frozen Fish	1	R	R				

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

* Sample must be dissected into liver, muscle, and remaining carcass and processed separately. Record liver weight for each sample. Arensic speciation is required for muscle samples only.

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			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by: Marissa Heppner	Date: September 27 2023	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:

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

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.

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: 20 -

Page 8 of 14
9

www.alsglobal.com — Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	Palmer Environmental Consulting Group
Contact:	Marissa Heppner
Phone:	604 703 9610 / marissa.heppner@pecg.ca
	Company address below will appear on the final report
Street:	470 Granville Street #630
City/Province:	Vancouver, BC
Postal Code:	V6C 1V5
Invoice To	Same as Report To ☐ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Ltd.
Contact:	Accounts Payable

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	marissa.heppner@pecg.ca
Email 2	ktanaka@artemisgoldinc.com
Email 3	lshelley@entiaenviro.com

Invoice Recipients	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	accounts@artemisgoldinc.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.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

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.

Project Information	
ALS Account # / Quote #:	VA23-BWGL100-002
Job #:	2006506
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: Amber Springer Sampler: Marissa Heppn

Analysis Request

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 incl. mercury	Arsenic speciation	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes
	661-04_ef_20230909_RB_1	9-Sep-23	-	Frozen Fish	1	R	R				
	661-04_ef_20230909_RB_2	9-Sep-23	-	Frozen Fish	1	R	R				
	661-04_ef_20230909_RB_3	9-Sep-23	-	Frozen Fish	1	R	R				
	661-04_ef_20230909_RB_4	9-Sep-23	-	Frozen Fish	1	R	R				
	661-04_ef_20230909_RB_5	9-Sep-23	-	Frozen Fish	1	R	R				
	661-04_ef_20230909_RB_6	9-Sep-23	-	Frozen Fish	1	R	R				
	661-04_ef_20230909_RB_7	9-Sep-23	-	Frozen Fish	1	R	R				
	661-04_ef_20230909_RB_8	9-Sep-23	-	Frozen Fish	1	R	R				

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

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 must be dissected into liver, muscle, and remaining carcass and processed separately. Record liver weight for each sample. Arsenic speciation is required for muscle samples only.

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			

SHIPMENT RELEASE (client use)		
Released by: Marissa Heppner	Date: September 27 2023	Time:

INITIAL SHIPMENT RECEPTION (ALS use only)		
Received by:	Date:	Time:

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.

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: 20 -

Page 10 of 14

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Report To	Contact and company name below will appear on the final report
Company:	Palmer Environmental Consulting Group
Contact:	Marissa Heppner
Phone:	604 703 9610 / marissa.heppner@pecg.ca
	Company address below will appear on the final report
Street:	470 Granville Street #630
City/Province:	Vancouver, BC
Postal Code:	V6C 1V5
Invoice To	Same as Report To ☐ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Ltd.
Contact:	Accounts Payable

Project Information	
ALS Account # / Quote #:	VA23-BWGL100-002
Job #:	2006506
PO / AFE:	
LSD:	

ALS Lab Work Order # (ALS use only):

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	marissa.heppner@pecg.ca
Email 2	ktanaka@artemisgoldinc.com
Email 3	lshelley@entiaenviro.com

Invoice Recipients	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	accounts@artemisgoldinc.com
Email 2	

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

ALS Contact: Amber Springer **Sampler:** Marissa Heppner

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.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

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.

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 incl. mercury	Arsenic speciation	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	705-05_ef_20230910_RB_1	10-Sep-23	-	Frozen Fish	1	R	R				
	705-05_ef_20230910_RB_2	10-Sep-23	-	Frozen Fish	1	R	R				
	705-05_ef_20230910_RB_3	10-Sep-23	-	Frozen Fish	1	R	R				
	705-05_ef_20230910_RB_4	10-Sep-23	-	Frozen Fish	1	R	R				
	705-05_ef_20230910_RB_5	10-Sep-23	-	Frozen Fish	1	R	R				
	705-05_ef_20230910_RB_6	10-Sep-23	-	Frozen Fish	1	R	R				
	705-05_ef_20230910_RB_7	10-Sep-23	-	Frozen Fish	1	R	R				
	705-05_ef_20230910_RB_8	10-Sep-23	-	Frozen Fish	1	R	R				

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

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

* Sample must be dissected into liver, muscle, and remaining carcass and processed separately. Record liver weight for each sample. Arsenic speciation is required for muscle samples only.

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			

SHIPMENT RELEASE (client use)		
Released by: Marissa Heppner	Date: September 27 2023	Time:

INITIAL SHIPMENT RECEPTION (ALS use only)		
Received by:	Date:	Time:

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

ALS 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

COC Number: 20 -

Page 11 of 14

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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:	Palmer Environmental Consulting Group
Contact:	Marissa Heppner
Phone:	604 703 9610 / marissa.heppner@pecg.ca
	Company address below will appear on the final report
Street:	470 Granville Street #630
City/Province:	Vancouver, BC
Postal Code:	V6C 1V5
Invoice To	Same as Report To ☐ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Ltd.
Contact:	Accounts Payable

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: marissa.heppner@pecg.ca

Email 2: ktanaka@artemisgoldinc.com

Email 3: lshelley@entiaenviro.com

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: accounts@artemisgoldinc.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.

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AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #: VA23-BWGL100-002

Job #: 2006506

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: Amber Springer Sampler: Marissa Heppner

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 incl. mercury	Arsenic speciation	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	TC-10_ef_20230913_RB_1	13-Sep-23		Frozen Fish	1	R	R				
	TC-10_ef_20230913_RB_2	13-Sep-23		Frozen Fish	1	R	R				
	TC-10_ef_20230913_RB_3	13-Sep-23		Frozen Fish	1	R	R				
	TC-10_ef_20230913_RB_4	13-Sep-23		Frozen Fish	1	R	R				
	TC-10_ef_20230913_RB_5	13-Sep-23		Frozen Fish	1	R	R				
	TC-10_ef_20230913_RB_6	13-Sep-23		Frozen Fish	1	R	R				
	TC-10_ef_20230913_RB_7	13-Sep-23		Frozen Fish	1	R	R				
	TC-10_ef_20230913_RB_8	13-Sep-23		Frozen Fish	1	R	R				

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

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

* Sample must be dissected into liver, muscle, and remaining carcass and processed separately. Record liver weight for each sample. Arsenic speciation is required for muscle samples only.

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			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by: Marissa Heppner	Date: September 27 2023	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Page 12 of 14

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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:	Palmer Environmental Consulting Group
Contact:	Marissa Heppner
Phone:	604 703 9610 / marissa.heppner@pecg.ca
	Company address below will appear on the final report
Street:	470 Granville Street #630
City/Province:	Vancouver, BC
Postal Code:	V6C 1V5
Invoice To	Same as Report To ☐ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Ltd.
Contact:	Accounts Payable

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	marissa.heppner@pecg.ca
Email 2	ktanaka@artemisgoldinc.com
Email 3	lshelley@entiaenviro.com

Invoice Recipients	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	accounts@artemisgoldinc.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.

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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		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	VA23-BWGL100-002	AFE/Cost Center:	PO#
Job #:	2006506	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer Sampler: Marissa Heppn

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 incl. mercury	Arsenic speciation	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes
	705-10_ef_20230915_RB_1	15-Sep-23		Frozen Fish	1	R	R				
	705-10_ef_20230915_RB_2	15-Sep-23		Frozen Fish	1	R	R				
	705-10_ef_20230915_RB_3	15-Sep-23		Frozen Fish	1	R	R				
	705-10_ef_20230915_RB_4	15-Sep-23		Frozen Fish	1	R	R				
	705-10_ef_20230915_RB_5	15-Sep-23		Frozen Fish	1	R	R				
	705-10_ef_20230915_RB_6	15-Sep-23		Frozen Fish	1	R	R				
	705-10_ef_20230915_RB_7	15-Sep-23		Frozen Fish	1	R	R				
	705-10_ef_20230915_RB_8	15-Sep-23		Frozen Fish	1	R	R				
	661-05_ef_20230914_RB_1	14-Sep-23		Frozen Fish	1	R	R				
	661-05_ef_20230914_RB_2	14-Sep-23		Frozen Fish	1	R	R				
	661-05_ef_20230914_RB_3	14-Sep-23		Frozen Fish	1	R	R				

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

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

* Sample must be dissected into liver, muscle, and remaining carcass and processed separately. Record liver weight for each sample. Arensic speciation is required for muscle samples only.

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			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by: Marissa Heppner	Date: September 27 2023	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Page 13 of 14

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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:	Palmer Environmental Consulting Group
Contact:	Marissa Heppner
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	Company address below will appear on the final report
Street:	470 Granville Street #630
City/Province:	Vancouver, BC
Postal Code:	V6C 1V5
Invoice To	Same as Report To ☐ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Ltd.
Contact:	Accounts Payable

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	marissa.heppner@pecg.ca
Email 2	ktanaka@artemisgoldinc.com
Email 3	lshelley@entiaenviro.com

Invoice Recipients	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	accounts@artemisgoldinc.com
Email 2	

Turnaround Time (TAT) Requested
☑ Routine [R] If received by 3pm M-F - no surcharges apply
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Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

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Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	VA23-BWGL100-002	AFE/Cost Center:	PO#
Job #:	2006506	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (ALS use only):

ALS Contact: Amber Springer Sampler: Marissa Heppn

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 incl. mercury	Arsenic speciation										SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes
	ML-01-GW-20230921-RB-1	*	21-Sep-23		Frozen Fish	1	R	R	R												
	ML-01-GW-20230921-RB-2	*	21-Sep-23		Frozen Fish	1	R	R	R												
	ML-01-GW-20230922-MW-1	*	22-Sep-23		Frozen Fish	1	R	R	R												
	ML-01-GW-20230921-RB-6	*	21-Sep-23		Frozen Fish	1	R	R	R												
	ML-01-GW-20230921-MW-8	*	21-Sep-23		Frozen Fish	1	R	R	R												
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	ML-01-GW-20230921-RB-7	*	21-Sep-23		Frozen Fish	1	R	R	R												
	ML-01-GW-20230921-RB-3	*	21-Sep-23		Frozen Fish	1	R	R	R												
	ML-01-GW-20230921-MW-9	*	21-Sep-23		Frozen Fish	1	R	R	R												

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

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

* Sample must be dissected into liver, muscle, and remaining carcass and processed separately. Record liver weight for each sample. Arsenic speciation is required for muscle samples only.

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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			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by: Marissa Heppner	Date: September 27 2023	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Page 14 of 14

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Canada Toll Free: 1 800 668 9878

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Contact:	Marissa Heppner
Phone:	604 703 9610 / marissa.heppner@pecg.ca
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Street:	470 Granville Street #630
City/Province:	Vancouver, BC
Postal Code:	V6C 1V5
Invoice To	Same as Report To ☐ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Ltd.
Contact:	Accounts Payable

Reports / Recipients

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

Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A

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Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: marissa.heppner@pecg.ca

Email 2: ktanaka@artemisgoldinc.com

Email 3: lshelley@entiaenviro.com

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: accounts@artemisgoldinc.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

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AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #: VA23-BWGL100-002

Job #: 2006506

PO / AFE:

LSD:

Oil and Gas Required Fields (client use)

AFE/Cost Center: PO#

Major/Minor Code: Routing Code:

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Location:

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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 incl. mercury	Arsenic speciation	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	WL-01-GW-20230921-FB-2	21-Sep-23		Frozen Fish	1	R	R	R			
	WL-01-GW-20230921-MW-10	21-Sep-23		Frozen Fish	1	R	R	R			
	WL-01-GW-20230921-MW-11	21-Sep-23		Frozen Fish	1	R	R	R			
	WL-01-GW-20230922-MW-2	22-Sep-23		Frozen Fish	1	R	R	R			
	WL-01-GW-20230922-MW-3	22-Sep-23		Frozen Fish	1	R	R	R			
	WL-01-GW-20230922-MW-4	22-Sep-23		Frozen Fish	1	R	R	R			
	WL-01-GW-20230922-MW-5	22-Sep-23		Frozen Fish	1	R	R	R			
				Frozen Fish	1	R	R	R			
				Frozen Fish	1	R	R	R			
				Frozen Fish	1	R	R	R			
				Frozen Fish	1	R	R	R			
				Frozen Fish	1	R	R	R			

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

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

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

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

* Sample must be dissected into liver, muscle, and remaining carcass and processed separately. Record liver weight for each sample. Arensic speciation is required for muscle samples only.

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			
				-4	-9		

SHIPMENT RELEASE (client use)

Released by: Marissa Heppner Date: September 27 2023 Time:

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by: Date: Time:

FINAL SHIPMENT RECEPTION (ALS use only)

Received by: I Date: 26-Sep 23 Time: 1150 hr

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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

COC pages 1 to 14

Appendix A.5 Small Mammal Tissues Quality Results, 2023

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C4435**	Page	: 1 of 133
Client	: **ERM Consultants Canada Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Kimberly San	Account Manager	: Amber Springer
Address	: 10th Floor, 1100 Melville St. Vancouver BC Canada V6E 4A6	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: 604 689 9460	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 12-Oct-2023 08:50
PO	: 12970	Date Analysis Commenced	: 14-Dec-2023
C-O-C number	: ----	Issue Date	: 20-Dec-2023 14:29
Sampler	: SS		
Site	: ----		
Quote number	: VA23-BWGL100-005		
No. of samples received	: 114		
No. of samples analysed	: 114		

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*
Alex Thornton	Analyst	Metals, Burnaby, British Columbia
Ghazaleh Khanmirzaei	Analsyt	Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Kinny Wu	Lab Analyst	Metals, Burnaby, British Columbia
Maria Larrotta	Lab Assistant	Metals, Burnaby, British Columbia
Owen Cheng		Metals, Burnaby, British Columbia
Ragini Saini	Lab Assistant	Metals, Burnaby, British Columbia
Salimah Khimani	Lab Assistant	Metals, Burnaby, British Columbia
Sam Silveira	Lab Assistant	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*
%	percent
mg/kg	milligrams per kilogram
mg/kg wwt	milligrams per kilogram wet weight

<: 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: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-14-RBV-1-C	CFMP-14-RBV-1-L	CFMP-14-RBV-7-C	CFMP-14-RBV-7-L	CFMP-19-DM-12-C
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-001	VA23C4435-002	VA23C4435-003	VA23C4435-004	VA23C4435-005
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		70.9	----	70.4	----	65.7
Moisture	----	E144A/VA	2.0	%		----	----	----	68.9	----
Moisture	----	E144-H/VA	2.0	%		----	68.8	----	----	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		85.8	----	76.3	----	337
Aluminum	7429-90-5	E475/VA	5.0	mg/kg		----	----	----	<5.0	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	<5.0	----	----	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		24.9	----	22.6	----	116
Aluminum	7429-90-5	E475A/VA	1.0	mg/kg wwt		----	----	----	1.0	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	<1.0	----	----	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	<0.010	----	----	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		0.144	----	0.199	----	0.013
Antimony	7440-36-0	E475/VA	0.020	mg/kg		----	----	----	<0.020	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		0.0420	----	0.0588	----	0.0044
Antimony	7440-36-0	E475A/VA	0.0040	mg/kg wwt		----	----	----	<0.0040	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.073	----	0.128	----	0.039
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	0.080	----	----	----
Arsenic	7440-38-2	E475/VA	0.050	mg/kg		----	----	----	0.112	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0213	----	0.0380	----	0.0135
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	0.0250	----	----	----
Arsenic	7440-38-2	E475A/VA	0.010	mg/kg wwt		----	----	----	0.035	----
Barium	7440-39-3	E475/VA	0.050	mg/kg		----	----	----	<0.050	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	0.076	----	----	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		15.5	----	15.9	----	16.4
Barium	7440-39-3	E475A/VA	0.010	mg/kg wwt		----	----	----	0.014	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	0.024	----	----	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		4.51	----	4.69	----	5.63
Beryllium	7440-41-7	E475/VA	0.010	mg/kg		----	----	----	<0.010	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-14-RBV-1-C	CFMP-14-RBV-1-L	CFMP-14-RBV-7-C	CFMP-14-RBV-7-L	CFMP-19-DM-12-C
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-001	VA23C4435-002	VA23C4435-003	VA23C4435-004	VA23C4435-005
						Result	Result	Result	Result	Result
Metals										
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	<0.010	----	----	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	----	<0.010	----	<0.010
Beryllium	7440-41-7	E475A/VA	0.0020	mg/kg wwt		----	----	----	<0.0020	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	----	<0.0020
Bismuth	7440-69-9	E475/VA	0.010	mg/kg		----	----	----	0.020	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	0.018	----	----	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		0.013	----	0.014	----	<0.010
Bismuth	7440-69-9	E475A/VA	0.0020	mg/kg wwt		----	----	----	0.0064	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	0.0058	----	----	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		0.0038	----	0.0042	----	0.0022
Boron	7440-42-8	E475/VA	1.0	mg/kg		----	----	----	<1.0	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	<1.0	----	----	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		2.0	----	3.1	----	3.0
Boron	7440-42-8	E475A/VA	0.20	mg/kg wwt		----	----	----	0.22	----
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	<0.20	----	----	----
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		0.59	----	0.91	----	1.02
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0986	----	0.101	----	0.0652
Cadmium	7440-43-9	E475/VA	0.010	mg/kg		----	----	----	0.198	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	0.096	----	----	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0287	----	0.0299	----	0.0224
Cadmium	7440-43-9	E475A/VA	0.0020	mg/kg wwt		----	----	----	0.0616	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	0.0299	----	----	----
Calcium	7440-70-2	E475/VA	20	mg/kg		----	----	----	236	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	123	----	----	----
Calcium	7440-70-2	E440/VA	20	mg/kg		29000	----	35400	----	30300
Calcium	7440-70-2	E475A/VA	4.0	mg/kg wwt		----	----	----	73.3	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	38.4	----	----	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		8430	----	10500	----	10400
Cesium	7440-46-2	E475/VA	0.0050	mg/kg		----	----	----	2.37	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-14-RBV-1-C	CFMP-14-RBV-1-L	CFMP-14-RBV-7-C	CFMP-14-RBV-7-L	CFMP-19-DM-12-C
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-001	VA23C4435-002	VA23C4435-003	VA23C4435-004	VA23C4435-005
						Result	Result	Result	Result	Result
Metals										
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	1.43	----	----	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		1.42	----	2.39	----	0.714
Cesium	7440-46-2	E475A/VA	0.0010	mg/kg wwt		----	----	----	0.736	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	0.446	----	----	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.411	----	0.706	----	0.245
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.908	----	0.436	----	0.811
Chromium	7440-47-3	E475/VA	0.20	mg/kg		----	----	----	<0.20	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	1.23	----	----	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.264	----	0.129	----	0.278
Chromium	7440-47-3	E475A/VA	0.040	mg/kg wwt		----	----	----	<0.040	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	0.385	----	----	----
Cobalt	7440-48-4	E475/VA	0.020	mg/kg		----	----	----	0.100	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	0.106	----	----	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.191	----	0.194	----	0.115
Cobalt	7440-48-4	E475A/VA	0.0040	mg/kg wwt		----	----	----	0.0310	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	0.0331	----	----	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0555	----	0.0575	----	0.0396
Copper	7440-50-8	E440/VA	0.10	mg/kg		9.77	----	15.5	----	10.3
Copper	7440-50-8	E475/VA	0.20	mg/kg		----	----	----	19.0	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	16.2	----	----	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		2.84	----	4.59	----	3.54
Copper	7440-50-8	E475A/VA	0.040	mg/kg wwt		----	----	----	5.89	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	5.05	----	----	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		310	----	278	----	276
Iron	7439-89-6	E475/VA	5.0	mg/kg		----	----	----	615	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	521	----	----	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		90.2	----	82.4	----	94.8
Iron	7439-89-6	E475A/VA	1.0	mg/kg wwt		----	----	----	191	----
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	163	----	----	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.177	----	0.141	----	0.100

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-14-RBV-1-C	CFMP-14-RBV-1-L	CFMP-14-RBV-7-C	CFMP-14-RBV-7-L	CFMP-19-DM-12-C
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-001	VA23C4435-002	VA23C4435-003	VA23C4435-004	VA23C4435-005
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E475/VA	0.050	mg/kg		----	----	----	<0.050	----
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	<0.050	----	----	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0515	----	0.0418	----	0.0343
Lead	7439-92-1	E475A/VA	0.010	mg/kg wwt		----	----	----	<0.010	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	0.015	----	----	----
Lithium	7439-93-2	E475/VA	0.50	mg/kg		----	----	----	<0.50	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	<0.50	----	----	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	----	<0.50	----	<0.50
Lithium	7439-93-2	E475A/VA	0.10	mg/kg wwt		----	----	----	<0.10	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	<0.10	----	----	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	----	<0.10	----	<0.10
Magnesium	7439-95-4	E475/VA	2.0	mg/kg		----	----	----	823	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	968	----	----	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1580	----	1690	----	1600
Magnesium	7439-95-4	E475A/VA	0.40	mg/kg wwt		----	----	----	256	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	302	----	----	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		459	----	499	----	550
Manganese	7439-96-5	E475/VA	0.050	mg/kg		----	----	----	8.59	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	11.4	----	----	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		36.5	----	29.8	----	25.3
Manganese	7439-96-5	E475A/VA	0.010	mg/kg wwt		----	----	----	2.67	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	3.56	----	----	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		10.6	----	8.81	----	8.68
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	0.570	----	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.452	----	0.392	----	0.0768
Mercury	7439-97-6	E512/VA	0.010	mg/kg		----	----	----	0.624	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	0.178	----	----	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.131	----	0.116	----	0.0263
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt		----	----	----	0.194	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.526	----	0.569	----	0.852

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-14-RBV-1-C	CFMP-14-RBV-1-L	CFMP-14-RBV-7-C	CFMP-14-RBV-7-L	CFMP-19-DM-12-C
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-001	VA23C4435-002	VA23C4435-003	VA23C4435-004	VA23C4435-005
						Result	Result	Result	Result	Result
Metals										
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg		----	----	----	3.60	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	4.80	----	----	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.153	----	0.168	----	0.292
Molybdenum	7439-98-7	E475A/VA	0.0080	mg/kg wwt		----	----	----	1.12	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	1.50	----	----	----
Nickel	7440-02-0	E475/VA	0.20	mg/kg		----	----	----	<0.20	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	<0.20	----	----	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		0.80	----	0.93	----	1.07
Nickel	7440-02-0	E475A/VA	0.040	mg/kg wwt		----	----	----	<0.040	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		0.233	----	0.274	----	0.366
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	13300	----	----	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		25300	----	27500	----	23700
Phosphorus	7723-14-0	E475/VA	20	mg/kg		----	----	----	11300	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	4160	----	----	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		7350	----	8140	----	8140
Phosphorus	7723-14-0	E475A/VA	4.0	mg/kg wwt		----	----	----	3500	----
Potassium	7440-09-7	E475/VA	20	mg/kg		----	----	----	9680	----
Potassium	7440-09-7	E472/VA	20	mg/kg		----	9470	----	----	----
Potassium	7440-09-7	E440/VA	20	mg/kg		11800	----	11700	----	9460
Potassium	7440-09-7	E475A/VA	4.0	mg/kg wwt		----	----	----	3010	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	2960	----	----	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3420	----	3450	----	3240
Rubidium	7440-17-7	E475/VA	0.050	mg/kg		----	----	----	53.4	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	38.5	----	----	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		39.9	----	56.2	----	29.2
Rubidium	7440-17-7	E475A/VA	0.010	mg/kg wwt		----	----	----	16.6	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	12.0	----	----	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		11.6	----	16.6	----	10.0
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.925	----	0.819	----	1.11

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-14-RBV-1-C	CFMP-14-RBV-1-L	CFMP-14-RBV-7-C	CFMP-14-RBV-7-L	CFMP-19-DM-12-C
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-001	VA23C4435-002	VA23C4435-003	VA23C4435-004	VA23C4435-005
						Result	Result	Result	Result	Result
Metals										
Selenium	7782-49-2	E475/VA	0.10	mg/kg		----	----	----	2.19	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	2.88	----	----	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.269	----	0.242	----	0.379
Selenium	7782-49-2	E475A/VA	0.020	mg/kg wwt		----	----	----	0.680	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	0.900	----	----	----
Sodium	7440-23-5	E475/VA	20	mg/kg		----	----	----	3560	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	3490	----	----	----
Sodium	7440-23-5	E440/VA	20	mg/kg		5090	----	4610	----	4650
Sodium	7440-23-5	E475A/VA	4.0	mg/kg wwt		----	----	----	1110	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	1090	----	----	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		1480	----	1360	----	1590
Strontium	7440-24-6	E440/VA	0.050	mg/kg		36.2	----	37.8	----	33.5
Strontium	7440-24-6	E475/VA	0.10	mg/kg		----	----	----	0.31	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	0.10	----	----	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		10.5	----	11.2	----	11.5
Strontium	7440-24-6	E475A/VA	0.020	mg/kg wwt		----	----	----	0.096	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	0.032	----	----	----
Tellurium	13494-80-9	E475/VA	0.020	mg/kg		----	----	----	<0.020	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	<0.020	----	----	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	----	<0.020	----	<0.020
Tellurium	13494-80-9	E475A/VA	0.0040	mg/kg wwt		----	----	----	<0.0040	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	<0.0040	----	----	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	----	<0.0040	----	<0.0040
Thallium	7440-28-0	E475/VA	0.0020	mg/kg		----	----	----	0.0113	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	0.0073	----	----	----
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0102	----	0.0182	----	0.0027
Thallium	7440-28-0	E475A/VA	0.00040	mg/kg wwt		----	----	----	0.00352	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	0.00227	----	----	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00296	----	0.00539	----	0.00092
Tin	7440-31-5	E475/VA	0.10	mg/kg		----	----	----	<0.10	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-14-RBV-1-C	CFMP-14-RBV-1-L	CFMP-14-RBV-7-C	CFMP-14-RBV-7-L	CFMP-19-DM-12-C
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-001	VA23C4435-002	VA23C4435-003	VA23C4435-004	VA23C4435-005
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	<0.10	----	----	----
Tin	7440-31-5	E440/VA	0.10	mg/kg		<0.10	----	<0.10	----	0.16
Tin	7440-31-5	E475A/VA	0.020	mg/kg wwt		----	----	----	<0.020	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	<0.020	----	----	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		<0.020	----	<0.020	----	0.054
Uranium	7440-61-1	E475/VA	0.0020	mg/kg		----	----	----	<0.0020	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	<0.0020	----	----	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0145	----	0.155	----	0.0089
Uranium	7440-61-1	E475A/VA	0.00040	mg/kg wwt		----	----	----	<0.00040	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	<0.00040	----	----	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.00421	----	0.0460	----	0.00305
Vanadium	7440-62-2	E475/VA	0.10	mg/kg		----	----	----	<0.10	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	<0.10	----	----	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	----	0.25	----	0.22
Vanadium	7440-62-2	E475A/VA	0.020	mg/kg wwt		----	----	----	<0.020	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	<0.020	----	----	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.028	----	0.074	----	0.077
Zinc	7440-66-6	E440/VA	0.50	mg/kg		99.0	----	112	----	102
Zinc	7440-66-6	E475/VA	1.0	mg/kg		----	----	----	68.7	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	76.4	----	----	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		28.8	----	33.0	----	34.9
Zinc	7440-66-6	E475A/VA	0.20	mg/kg wwt		----	----	----	21.3	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	23.8	----	----	----
Zirconium	7440-67-7	E475/VA	0.20	mg/kg		----	----	----	<0.20	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	<0.20	----	----	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	----	<0.20	----	<0.20
Zirconium	7440-67-7	E475A/VA	0.040	mg/kg wwt		----	----	----	<0.040	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	----	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-19-DM-12-L	CFMP-19-DM-13-C	CFMP-19-DM-13-L	CFMP-19-DM-14-C	CFMP-19-DM-14-L
					Client sampling date / time	23-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-006	VA23C4435-007	VA23C4435-008	VA23C4435-009	VA23C4435-010
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		----	66.2	----	66.4	----
Moisture	----	E144A/VA	2.0	%		67.0	----	----	----	----
Moisture	----	E144-H/VA	2.0	%		----	----	68.5	----	68.4
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		----	297	----	145	----
Aluminum	7429-90-5	E475/VA	5.0	mg/kg		<5.0	----	----	----	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	<5.0	----	<5.0
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		----	100	----	48.7	----
Aluminum	7429-90-5	E475A/VA	1.0	mg/kg wwt		<1.0	----	----	----	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	<1.0	----	<1.0
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	<0.010	----	<0.010
Antimony	7440-36-0	E440/VA	0.010	mg/kg		----	<0.010	----	<0.010	----
Antimony	7440-36-0	E475/VA	0.020	mg/kg		<0.020	----	----	----	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	<0.0020
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		----	0.0025	----	0.0027	----
Antimony	7440-36-0	E475A/VA	0.0040	mg/kg wwt		<0.0040	----	----	----	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		----	0.092	----	0.066	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	<0.030	----	0.035
Arsenic	7440-38-2	E475/VA	0.050	mg/kg		<0.050	----	----	----	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		----	0.0312	----	0.0221	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	0.0088	----	0.0110
Arsenic	7440-38-2	E475A/VA	0.010	mg/kg wwt		<0.010	----	----	----	----
Barium	7440-39-3	E475/VA	0.050	mg/kg		<0.050	----	----	----	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	<0.050	----	0.076
Barium	7440-39-3	E440/VA	0.050	mg/kg		----	17.4	----	21.8	----
Barium	7440-39-3	E475A/VA	0.010	mg/kg wwt		0.016	----	----	----	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	<0.010	----	0.024
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		----	5.89	----	7.30	----
Beryllium	7440-41-7	E475/VA	0.010	mg/kg		<0.010	----	----	----	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	<0.010	----	<0.010

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-19-DM-12-L	CFMP-19-DM-13-C	CFMP-19-DM-13-L	CFMP-19-DM-14-C	CFMP-19-DM-14-L
					Client sampling date / time	23-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-006	VA23C4435-007	VA23C4435-008	VA23C4435-009	VA23C4435-010
						Result	Result	Result	Result	Result
Metals										
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		----	<0.010	----	<0.010	----
Beryllium	7440-41-7	E475A/VA	0.0020	mg/kg wwt		<0.0020	----	----	----	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	<0.0020
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	----	<0.0020	----
Bismuth	7440-69-9	E475/VA	0.010	mg/kg		<0.010	----	----	----	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	<0.010	----	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		----	<0.010	----	<0.010	----
Bismuth	7440-69-9	E475A/VA	0.0020	mg/kg wwt		<0.0020	----	----	----	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	<0.0020
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	----	<0.0020	----
Boron	7440-42-8	E475/VA	1.0	mg/kg		<1.0	----	----	----	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	<1.0	----	<1.0
Boron	7440-42-8	E440/VA	1.0	mg/kg		----	3.1	----	1.4	----
Boron	7440-42-8	E475A/VA	0.20	mg/kg wwt		<0.20	----	----	----	----
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	<0.20	----	<0.20
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		----	1.06	----	0.48	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		----	0.0504	----	0.0286	----
Cadmium	7440-43-9	E475/VA	0.010	mg/kg		0.041	----	----	----	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	0.026	----	0.033
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		----	0.0170	----	0.0096	----
Cadmium	7440-43-9	E475A/VA	0.0020	mg/kg wwt		0.0136	----	----	----	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	0.0080	----	0.0103
Calcium	7440-70-2	E475/VA	20	mg/kg		127	----	----	----	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	143	----	211
Calcium	7440-70-2	E440/VA	20	mg/kg		----	22800	----	27800	----
Calcium	7440-70-2	E475A/VA	4.0	mg/kg wwt		41.9	----	----	----	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	45.0	----	66.6
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		----	7690	----	9340	----
Cesium	7440-46-2	E475/VA	0.0050	mg/kg		0.540	----	----	----	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	0.546	----	0.918

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-19-DM-12-L	CFMP-19-DM-13-C	CFMP-19-DM-13-L	CFMP-19-DM-14-C	CFMP-19-DM-14-L
					Client sampling date / time	23-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-006	VA23C4435-007	VA23C4435-008	VA23C4435-009	VA23C4435-010
						Result	Result	Result	Result	Result
Metals										
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		----	0.601	----	1.19	----
Cesium	7440-46-2	E475A/VA	0.0010	mg/kg wwt		0.178	----	----	----	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	0.172	----	0.290
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		----	0.203	----	0.400	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		----	0.380	----	0.240	----
Chromium	7440-47-3	E475/VA	0.20	mg/kg		0.28	----	----	----	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	<0.20	----	<0.20
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		----	0.128	----	0.080	----
Chromium	7440-47-3	E475A/VA	0.040	mg/kg wwt		0.094	----	----	----	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	0.062
Cobalt	7440-48-4	E475/VA	0.020	mg/kg		0.103	----	----	----	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	0.137	----	0.142
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		----	0.181	----	0.142	----
Cobalt	7440-48-4	E475A/VA	0.0040	mg/kg wwt		0.0339	----	----	----	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	0.0431	----	0.0449
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		----	0.0612	----	0.0476	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		----	17.2	----	8.49	----
Copper	7440-50-8	E475/VA	0.20	mg/kg		16.4	----	----	----	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	22.8	----	15.9
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		----	5.79	----	2.85	----
Copper	7440-50-8	E475A/VA	0.040	mg/kg wwt		5.41	----	----	----	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	7.19	----	5.02
Iron	7439-89-6	E440/VA	3.0	mg/kg		----	440	----	329	----
Iron	7439-89-6	E475/VA	5.0	mg/kg		307	----	----	----	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	418	----	448
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		----	148	----	110	----
Iron	7439-89-6	E475A/VA	1.0	mg/kg wwt		101	----	----	----	----
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	132	----	142
Lead	7439-92-1	E440/VA	0.020	mg/kg		----	0.183	----	0.157	----
Lead	7439-92-1	E475/VA	0.050	mg/kg		<0.050	----	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-19-DM-12-L	CFMP-19-DM-13-C	CFMP-19-DM-13-L	CFMP-19-DM-14-C	CFMP-19-DM-14-L
					Client sampling date / time	23-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-006	VA23C4435-007	VA23C4435-008	VA23C4435-009	VA23C4435-010
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	<0.050	----	<0.050
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		----	0.0618	----	0.0527	----
Lead	7439-92-1	E475A/VA	0.010	mg/kg wwt		<0.010	----	----	----	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	<0.010	----	<0.010
Lithium	7439-93-2	E475/VA	0.50	mg/kg		<0.50	----	----	----	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	<0.50	----	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg		----	<0.50	----	<0.50	----
Lithium	7439-93-2	E475A/VA	0.10	mg/kg wwt		<0.10	----	----	----	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	<0.10	----	<0.10
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		----	<0.10	----	<0.10	----
Magnesium	7439-95-4	E475/VA	2.0	mg/kg		568	----	----	----	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	734	----	690
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		----	1330	----	1200	----
Magnesium	7439-95-4	E475A/VA	0.40	mg/kg wwt		188	----	----	----	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	231	----	218
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		----	450	----	404	----
Manganese	7439-96-5	E475/VA	0.050	mg/kg		9.13	----	----	----	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	16.5	----	10.7
Manganese	7439-96-5	E440/VA	0.050	mg/kg		----	53.9	----	15.9	----
Manganese	7439-96-5	E475A/VA	0.010	mg/kg wwt		3.02	----	----	----	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	5.18	----	3.39
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		----	18.2	----	5.33	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	0.0178	----	0.0215
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		----	0.0346	----	0.0354	----
Mercury	7439-97-6	E512/VA	0.010	mg/kg		0.039	----	----	----	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	0.0056	----	0.0068
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		----	0.0117	----	0.0119	----
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt		0.0128	----	----	----	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		----	0.554	----	0.540	----
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg		4.24	----	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-19-DM-12-L	CFMP-19-DM-13-C	CFMP-19-DM-13-L	CFMP-19-DM-14-C	CFMP-19-DM-14-L
					Client sampling date / time	23-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-006	VA23C4435-007	VA23C4435-008	VA23C4435-009	VA23C4435-010
						Result	Result	Result	Result	Result
Metals										
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	5.96	----	4.85
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		----	0.187	----	0.181	----
Molybdenum	7439-98-7	E475A/VA	0.0080	mg/kg wwt		1.40	----	----	----	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	1.88	----	1.53
Nickel	7440-02-0	E475/VA	0.20	mg/kg		<0.20	----	----	----	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	<0.20	----	<0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg		----	0.58	----	0.32	----
Nickel	7440-02-0	E475A/VA	0.040	mg/kg wwt		<0.040	----	----	----	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	<0.040
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		----	0.195	----	0.108	----
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	12200	----	11500
Phosphorus	7723-14-0	E440/VA	10	mg/kg		----	19800	----	21600	----
Phosphorus	7723-14-0	E475/VA	20	mg/kg		10200	----	----	----	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	3830	----	3630
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		----	6670	----	7230	----
Phosphorus	7723-14-0	E475A/VA	4.0	mg/kg wwt		3360	----	----	----	----
Potassium	7440-09-7	E475/VA	20	mg/kg		9150	----	----	----	----
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	10000	----	9370
Potassium	7440-09-7	E440/VA	20	mg/kg		----	9680	----	8430	----
Potassium	7440-09-7	E475A/VA	4.0	mg/kg wwt		3020	----	----	----	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	3160	----	2960
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		----	3260	----	2830	----
Rubidium	7440-17-7	E475/VA	0.050	mg/kg		37.5	----	----	----	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	46.0	----	66.6
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		----	28.9	----	46.7	----
Rubidium	7440-17-7	E475A/VA	0.010	mg/kg wwt		12.4	----	----	----	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	14.5	----	21.0
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		----	9.75	----	15.7	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		----	0.835	----	0.974	----
Selenium	7782-49-2	E475/VA	0.10	mg/kg		3.84	----	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-19-DM-12-L	CFMP-19-DM-13-C	CFMP-19-DM-13-L	CFMP-19-DM-14-C	CFMP-19-DM-14-L
					Client sampling date / time	23-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-006	VA23C4435-007	VA23C4435-008	VA23C4435-009	VA23C4435-010
						Result	Result	Result	Result	Result
Metals										
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	4.64	----	4.26
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		----	0.282	----	0.327	----
Selenium	7782-49-2	E475A/VA	0.020	mg/kg wwt		1.27	----	----	----	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	1.46	----	1.34
Sodium	7440-23-5	E475/VA	20	mg/kg		2820	----	----	----	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	3780	----	3960
Sodium	7440-23-5	E440/VA	20	mg/kg		----	3940	----	4030	----
Sodium	7440-23-5	E475A/VA	4.0	mg/kg wwt		930	----	----	----	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	1190	----	1250
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		----	1330	----	1350	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		----	27.1	----	30.5	----
Strontium	7440-24-6	E475/VA	0.10	mg/kg		<0.10	----	----	----	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	<0.10	----	0.19
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		----	9.14	----	10.2	----
Strontium	7440-24-6	E475A/VA	0.020	mg/kg wwt		0.023	----	----	----	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	0.028	----	0.061
Tellurium	13494-80-9	E475/VA	0.020	mg/kg		<0.020	----	----	----	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	<0.020	----	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		----	<0.020	----	<0.020	----
Tellurium	13494-80-9	E475A/VA	0.0040	mg/kg wwt		<0.0040	----	----	----	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	<0.0040	----	<0.0040
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	----	<0.0040	----
Thallium	7440-28-0	E475/VA	0.0020	mg/kg		<0.0020	----	----	----	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	0.0022	----	<0.0020
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		----	0.0036	----	0.0033	----
Thallium	7440-28-0	E475A/VA	0.00040	mg/kg wwt		<0.00040	----	----	----	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	----	0.00068	----	0.00048
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		----	0.00122	----	0.00110	----
Tin	7440-31-5	E475/VA	0.10	mg/kg		<0.10	----	----	----	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	<0.10	----	<0.10

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-19-DM-12-L	CFMP-19-DM-13-C	CFMP-19-DM-13-L	CFMP-19-DM-14-C	CFMP-19-DM-14-L
					Client sampling date / time	23-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-006	VA23C4435-007	VA23C4435-008	VA23C4435-009	VA23C4435-010
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		----	<0.10	----	<0.10	----
Tin	7440-31-5	E475A/VA	0.020	mg/kg wwt		<0.020	----	----	----	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	<0.020	----	<0.020
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		----	<0.020	----	<0.020	----
Uranium	7440-61-1	E475/VA	0.0020	mg/kg		<0.0020	----	----	----	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	<0.0020	----	<0.0020
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		----	0.0061	----	0.0035	----
Uranium	7440-61-1	E475A/VA	0.00040	mg/kg wwt		<0.00040	----	----	----	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	<0.00040	----	<0.00040
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		----	0.00206	----	0.00118	----
Vanadium	7440-62-2	E475/VA	0.10	mg/kg		<0.10	----	----	----	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	<0.10	----	<0.10
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		----	0.72	----	0.43	----
Vanadium	7440-62-2	E475A/VA	0.020	mg/kg wwt		<0.020	----	----	----	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	<0.020	----	<0.020
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		----	0.241	----	0.144	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		----	92.4	----	86.6	----
Zinc	7440-66-6	E475/VA	1.0	mg/kg		59.5	----	----	----	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	83.4	----	70.2
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		----	31.2	----	29.1	----
Zinc	7440-66-6	E475A/VA	0.20	mg/kg wwt		19.7	----	----	----	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	26.3	----	22.2
Zirconium	7440-67-7	E475/VA	0.20	mg/kg		<0.20	----	----	----	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	<0.20	----	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		----	<0.20	----	<0.20	----
Zirconium	7440-67-7	E475A/VA	0.040	mg/kg wwt		<0.040	----	----	----	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	<0.040
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		----	<0.040	----	<0.040	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-19-DM-15-C	CFMP-19-DM-15-L	CFMP-19-DM-5-C	CFMP-19-DM-5-L	CFMP-19-DM-8-C
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-011	VA23C4435-012	VA23C4435-013	VA23C4435-014	VA23C4435-015
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		69.2	69.2	70.7	----	66.1
Moisture	----	E144-H/VA	2.0	%		----	----	----	72.8	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		316	3.8	180	----	207
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	----	<5.0	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		97.6	1.16	52.9	----	70.2
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	----	<1.0	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	----	<0.010	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	0.014	----	0.074
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	----	<0.0020	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		0.0029	<0.0020	0.0043	----	0.0252
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.142	0.030	0.064	----	0.061
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	----	0.036	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0438	0.0092	0.0189	----	0.0206
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	----	0.0096	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	----	<0.050	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		27.6	0.097	19.3	----	14.1
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	----	<0.010	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		8.52	0.030	5.67	----	4.77
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	----	<0.010	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	----	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	----	<0.0020	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		0.0022	<0.0020	<0.0020	----	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	----	<0.010	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	----	0.019
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	----	<0.0020	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	----	0.0064
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	----	<1.0	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	<1.0	2.0	----	2.7
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	----	<0.20	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-19-DM-15-C	CFMP-19-DM-15-L	CFMP-19-DM-5-C	CFMP-19-DM-5-L	CFMP-19-DM-8-C
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-011	VA23C4435-012	VA23C4435-013	VA23C4435-014	VA23C4435-015
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	<0.20	0.58	----	0.93
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0456	0.0301	0.0389	----	0.0709
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	----	0.060	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0141	0.0093	0.0114	----	0.0240
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	----	0.0164	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	----	227	----
Calcium	7440-70-2	E440/VA	20	mg/kg		26200	177	32300	----	23300
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	----	61.6	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		8070	54.6	9480	----	7900
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	----	0.647	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.518	0.456	0.646	----	0.358
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	----	0.176	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.160	0.140	0.189	----	0.121
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.599	0.111	0.545	----	0.432
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	----	<0.20	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.185	0.034	0.160	----	0.146
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	----	<0.040	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	----	0.171	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.213	0.109	0.175	----	0.100
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	----	0.0464	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0658	0.0337	0.0514	----	0.0339
Copper	7440-50-8	E440/VA	0.10	mg/kg		9.15	21.9	14.0	----	12.2
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	----	23.1	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		2.82	6.75	4.11	----	4.12
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	----	6.27	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		569	366	317	----	287
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	----	331	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		175	113	92.9	----	97.2
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	----	89.9	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.185	<0.020	0.212	----	0.165

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-19-DM-15-C	CFMP-19-DM-15-L	CFMP-19-DM-5-C	CFMP-19-DM-5-L	CFMP-19-DM-8-C
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-011	VA23C4435-012	VA23C4435-013	VA23C4435-014	VA23C4435-015
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	----	<0.050	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0570	<0.0040	0.0622	----	0.0560
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	----	<0.010	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	----	<0.50	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	----	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	----	<0.10	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	----	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	----	942	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1170	742	1510	----	1330
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	----	256	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		360	228	444	----	450
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	----	18.3	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		25.8	19.5	24.1	----	13.0
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	----	4.96	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		7.94	5.99	7.06	----	4.42
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	----	0.0383	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0619	0.0302	0.0695	----	0.0419
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	----	0.0104	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0191	0.0093	0.0204	----	0.0142
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.363	4.95	0.562	----	0.413
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	----	4.83	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.112	1.52	0.165	----	0.140
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	----	1.31	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	----	<0.20	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		0.43	<0.20	0.62	----	2.35
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	----	<0.040	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		0.134	<0.040	0.181	----	0.796
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	----	13700	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		20600	12100	24700	----	19200
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	----	3720	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-19-DM-15-C	CFMP-19-DM-15-L	CFMP-19-DM-5-C	CFMP-19-DM-5-L	CFMP-19-DM-8-C
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-011	VA23C4435-012	VA23C4435-013	VA23C4435-014	VA23C4435-015
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		6340	3730	7250	----	6530
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	----	11100	----
Potassium	7440-09-7	E440/VA	20	mg/kg		9570	9960	10300	----	8750
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	----	3000	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		2950	3060	3020	----	2960
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	----	40.5	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		20.2	28.4	32.8	----	16.9
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	----	11.0	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		6.21	8.73	9.61	----	5.73
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.862	4.31	1.24	----	0.779
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	----	5.24	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.266	1.33	0.364	----	0.264
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	----	1.42	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	----	5180	----
Sodium	7440-23-5	E440/VA	20	mg/kg		3700	4010	5220	----	4610
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	----	1410	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		1140	1230	1530	----	1560
Strontium	7440-24-6	E440/VA	0.050	mg/kg		38.9	0.180	37.3	----	28.7
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	----	0.23	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		12.0	0.056	10.9	----	9.74
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	----	0.063	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	----	<0.020	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	----	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	----	<0.0040	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	----	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	----	0.0202	----
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0049	0.0027	0.0181	----	0.0042
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	----	----	0.00549	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00151	0.00083	0.00530	----	0.00144
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	----	<0.10	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-19-DM-15-C	CFMP-19-DM-15-L	CFMP-19-DM-5-C	CFMP-19-DM-5-L	CFMP-19-DM-8-C
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-011	VA23C4435-012	VA23C4435-013	VA23C4435-014	VA23C4435-015
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.24	<0.10	<0.10	----	<0.10
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	----	<0.020	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.074	<0.020	0.022	----	<0.020
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	----	<0.0020	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0086	<0.0020	0.196	----	0.0028
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	----	<0.00040	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.00266	<0.00040	0.0576	----	0.00096
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	----	<0.10	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		1.09	<0.10	0.39	----	0.24
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	----	<0.020	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.335	<0.020	0.114	----	0.080
Zinc	7440-66-6	E440/VA	0.50	mg/kg		89.3	83.8	114	----	89.3
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	----	93.3	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		27.5	25.8	33.4	----	30.3
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	----	25.3	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	----	<0.20	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		0.22	<0.20	<0.20	----	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	----	<0.040	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		0.067	<0.040	<0.040	----	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-19-DM-8-L	CFMP-24-DM-1-C	CFMP-24-DM-1-L	CFMP-24-DM-10-C	CFMP-24-DM-10-L
					Client sampling date / time	24-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C4435-016	VA23C4435-017	VA23C4435-018	VA23C4435-019	VA23C4435-020
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		67.4	69.3	----	71.5	----
Moisture	----	E144-H/VA	2.0	%		----	----	70.1	----	69.2
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		<2.0	209	----	73.2	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	<5.0	----	<5.0
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		0.49	64.1	----	20.9	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	<1.0	----	<1.0
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	<0.010	----	<0.010
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	0.033	----	0.012	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	<0.0020
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	0.0100	----	0.0034	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		<0.020	0.054	----	0.049	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	<0.030	----	0.031
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0164	----	0.0141	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	0.0075	----	0.0096
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	<0.050	----	<0.050
Barium	7440-39-3	E440/VA	0.050	mg/kg		<0.050	13.1	----	16.0	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	<0.010	----	<0.010
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		<0.010	4.01	----	4.57	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	<0.010	----	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	<0.0020
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	<0.0020	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	<0.010	----	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	0.018	----	<0.010	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	<0.0020
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	0.0055	----	<0.0020	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	<1.0	----	<1.0
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	3.6	----	1.8	----
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	<0.20	----	<0.20

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-19-DM-8-L	CFMP-24-DM-1-C	CFMP-24-DM-1-L	CFMP-24-DM-10-C	CFMP-24-DM-10-L
					Client sampling date / time	24-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C4435-016	VA23C4435-017	VA23C4435-018	VA23C4435-019	VA23C4435-020
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		0.25	1.10	----	0.51	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0332	0.132	----	0.0456	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	0.276	----	0.121
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0108	0.0406	----	0.0130	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	0.0823	----	0.0371
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	220	----	240
Calcium	7440-70-2	E440/VA	20	mg/kg		114	27500	----	36200	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	65.6	----	73.8
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		37.0	8440	----	10300	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	0.0268	----	0.0452
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.262	0.0456	----	0.0550	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	0.0080	----	0.0139
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0854	0.0140	----	0.0157	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		<0.050	0.614	----	0.282	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	<0.20	----	<0.20
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		<0.010	0.188	----	0.080	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	<0.040
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	0.472	----	0.205
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.113	0.238	----	0.157	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	0.141	----	0.0632
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0370	0.0732	----	0.0447	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		20.1	15.2	----	11.1	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	33.8	----	25.9
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		6.54	4.68	----	3.17	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	10.1	----	7.98
Iron	7439-89-6	E440/VA	3.0	mg/kg		217	308	----	237	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	576	----	465
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		70.6	94.4	----	67.7	----
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	172	----	143
Lead	7439-92-1	E440/VA	0.020	mg/kg		<0.020	0.124	----	0.063	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-19-DM-8-L	CFMP-24-DM-1-C	CFMP-24-DM-1-L	CFMP-24-DM-10-C	CFMP-24-DM-10-L
					Client sampling date / time	24-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C4435-016	VA23C4435-017	VA23C4435-018	VA23C4435-019	VA23C4435-020
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	<0.050	----	<0.050
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0382	----	0.0181	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	<0.010	----	<0.010
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	<0.50	----	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	----	<0.50	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	<0.10	----	<0.10
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	----	<0.10	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	736	----	752
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		750	1710	----	1510	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	220	----	232
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		244	524	----	430	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	9.61	----	6.56
Manganese	7439-96-5	E440/VA	0.050	mg/kg		10.7	21.8	----	12.7	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	2.87	----	2.02
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		3.49	6.70	----	3.63	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	0.0124	----	0.0230
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0300	0.0126	----	0.0208	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	0.0037	----	0.0071
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0098	0.0039	----	0.0059	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		5.40	1.51	----	0.515	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	5.44	----	5.83
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		1.76	0.463	----	0.147	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	1.62	----	1.79
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	<0.20	----	<0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	5.26	----	0.41	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	0.055	----	<0.040
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	1.61	----	0.117	----
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	10600	----	11900
Phosphorus	7723-14-0	E440/VA	10	mg/kg		12600	22400	----	26900	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	3170	----	3680

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-19-DM-8-L	CFMP-24-DM-1-C	CFMP-24-DM-1-L	CFMP-24-DM-10-C	CFMP-24-DM-10-L
					Client sampling date / time	24-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C4435-016	VA23C4435-017	VA23C4435-018	VA23C4435-019	VA23C4435-020
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		4120	6870	----	7670	----
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	10200	----	9120
Potassium	7440-09-7	E440/VA	20	mg/kg		10600	11900	----	10900	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	3050	----	2800
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3450	3660	----	3100	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	14.7	----	14.6
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		28.4	15.2	----	15.3	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	4.38	----	4.50
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		9.24	4.67	----	4.35	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		4.08	1.27	----	0.732	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	4.95	----	2.87
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		1.33	0.389	----	0.209	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	1.48	----	0.882
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	5240	----	3830
Sodium	7440-23-5	E440/VA	20	mg/kg		3420	6000	----	5300	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	1560	----	1180
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		1120	1840	----	1510	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		0.076	21.3	----	30.2	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	0.12	----	0.25
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		0.025	6.53	----	8.60	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	0.037	----	0.076
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	<0.020	----	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	----	<0.020	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	<0.0040	----	<0.0040
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	----	<0.0040	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	0.0047	----	0.0130
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0021	0.0107	----	0.0145	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	----	0.00140	----	0.00399
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00068	0.00329	----	0.00414	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	<0.10	----	<0.10

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-19-DM-8-L	CFMP-24-DM-1-C	CFMP-24-DM-1-L	CFMP-24-DM-10-C	CFMP-24-DM-10-L
					Client sampling date / time	24-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C4435-016	VA23C4435-017	VA23C4435-018	VA23C4435-019	VA23C4435-020
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		<0.10	<0.10	----	<0.10	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	<0.020	----	<0.020
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		<0.020	0.026	----	<0.020	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	<0.0020	----	<0.0020
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	0.175	----	0.112	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	<0.00040	----	<0.00040
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	0.0537	----	0.0321	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	<0.10	----	<0.10
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	0.31	----	0.17	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	<0.020	----	<0.020
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	0.095	----	0.049	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		86.0	120	----	107	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	87.4	----	74.4
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		28.0	36.9	----	30.5	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	26.1	----	22.9
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	<0.20	----	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	----	<0.20	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	<0.040
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	<0.040	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-24-DM-2-C	CFMP-24-DM-2-L	CFMP-24-DM-3-C	CFMP-24-DM-3-L	CFMP-24-DM-3a-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C4435-021	VA23C4435-022	VA23C4435-023	VA23C4435-024	VA23C4435-025
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		67.7	----	70.0	73.7	70.0
Moisture	----	E144-H/VA	2.0	%		----	65.8	----	----	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		124	----	112	4.0	123
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	<5.0	----	----	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		39.8	----	33.5	1.04	37.0
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	<1.0	----	----	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	<0.010	----	----	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		0.017	----	0.013	<0.010	0.017
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		0.0054	----	0.0039	<0.0020	0.0052
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.035	----	0.076	0.020	0.064
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	<0.030	----	----	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0113	----	0.0230	0.0054	0.0191
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	<0.0060	----	----	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	<0.050	----	----	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		5.42	----	14.8	<0.050	17.1
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	<0.010	----	----	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		1.75	----	4.45	0.010	5.13
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	<0.010	----	----	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	<0.0020	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	<0.010	----	----	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	----	<0.010	<0.010	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	0.0020	<0.0020	0.0021
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	<1.0	----	----	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		3.6	----	2.0	<1.0	3.2
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	<0.20	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-24-DM-2-C	CFMP-24-DM-2-L	CFMP-24-DM-3-C	CFMP-24-DM-3-L	CFMP-24-DM-3a-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C4435-021	VA23C4435-022	VA23C4435-023	VA23C4435-024	VA23C4435-025
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		1.17	----	0.60	<0.20	0.97
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0395	----	0.0299	0.108	0.0486
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	0.067	----	----	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0127	----	0.0090	0.0284	0.0146
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	0.0230	----	----	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	170	----	----	----
Calcium	7440-70-2	E440/VA	20	mg/kg		29600	----	35000	243	27700
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	58.4	----	----	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		9540	----	10500	63.9	8280
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	0.0154	----	----	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0284	----	0.0612	0.0555	0.0588
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	0.0053	----	----	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0092	----	0.0184	0.0146	0.0176
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.350	----	0.422	0.272	0.473
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	<0.20	----	----	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.113	----	0.127	0.072	0.142
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	0.224	----	----	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.162	----	0.140	0.485	0.216
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	0.0768	----	----	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0522	----	0.0419	0.127	0.0647
Copper	7440-50-8	E440/VA	0.10	mg/kg		11.8	----	10.9	24.0	15.2
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	19.4	----	----	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		3.80	----	3.28	6.30	4.55
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	6.65	----	----	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		231	----	294	370	261
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	287	----	----	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		74.7	----	88.2	97.3	78.3
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	98.2	----	----	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.110	----	0.065	<0.020	0.102

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-24-DM-2-C	CFMP-24-DM-2-L	CFMP-24-DM-3-C	CFMP-24-DM-3-L	CFMP-24-DM-3a-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C4435-021	VA23C4435-022	VA23C4435-023	VA23C4435-024	VA23C4435-025
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	<0.050	----	----	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0357	----	0.0196	<0.0040	0.0304
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	<0.010	----	----	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	<0.50	----	----	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	----	<0.50	<0.50	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	<0.10	----	----	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	----	<0.10	<0.10	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	719	----	----	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1520	----	1590	876	1540
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	246	----	----	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		490	----	476	230	462
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	10.0	----	----	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		20.7	----	9.38	7.75	20.1
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	3.42	----	----	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		6.68	----	2.81	2.04	6.02
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	0.0051	----	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0055	----	0.0096	0.0151	0.0116
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	0.0018	----	----	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0018	----	0.0029	0.0040	0.0035
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		1.51	----	0.710	3.99	1.41
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	4.20	----	----	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.488	----	0.213	1.05	0.422
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	1.44	----	----	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	<0.20	----	----	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		1.68	----	0.33	<0.20	0.51
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		0.543	----	0.098	<0.040	0.152
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	11000	----	----	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		22900	----	27000	12400	22600
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	3780	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-24-DM-2-C	CFMP-24-DM-2-L	CFMP-24-DM-3-C	CFMP-24-DM-3-L	CFMP-24-DM-3a-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C4435-021	VA23C4435-022	VA23C4435-023	VA23C4435-024	VA23C4435-025
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		7400	----	8100	3260	6760
Potassium	7440-09-7	E472/VA	20	mg/kg		----	9840	----	----	----
Potassium	7440-09-7	E440/VA	20	mg/kg		10700	----	10600	10300	11000
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	3370	----	----	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3450	----	3170	2710	3300
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	14.9	----	----	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		13.1	----	17.3	19.3	19.2
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	5.10	----	----	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		4.22	----	5.20	5.08	5.76
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.974	----	1.23	5.32	1.26
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	3.99	----	----	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.314	----	0.369	1.40	0.378
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	1.37	----	----	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	3180	----	----	----
Sodium	7440-23-5	E440/VA	20	mg/kg		4930	----	5110	4760	5670
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	1090	----	----	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		1590	----	1530	1250	1700
Strontium	7440-24-6	E440/VA	0.050	mg/kg		16.8	----	25.9	0.267	27.2
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	0.10	----	----	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		5.42	----	7.78	0.070	8.15
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	0.034	----	----	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	<0.020	----	----	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	----	<0.020	<0.020	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	<0.0040	----	----	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	----	<0.0040	<0.0040	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	<0.0020	----	----	----
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0025	----	0.0114	0.0121	0.0228
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	<0.00040	----	----	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00080	----	0.00342	0.00319	0.00683
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	<0.10	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-24-DM-2-C	CFMP-24-DM-2-L	CFMP-24-DM-3-C	CFMP-24-DM-3-L	CFMP-24-DM-3a-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C4435-021	VA23C4435-022	VA23C4435-023	VA23C4435-024	VA23C4435-025
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.28	----	0.11	<0.10	<0.10
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	<0.020	----	----	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.092	----	0.032	<0.020	<0.020
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	<0.0020	----	----	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0061	----	0.0546	0.0021	0.236
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	<0.00040	----	----	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.00198	----	0.0164	0.00056	0.0706
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	<0.10	----	----	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		0.10	----	0.19	<0.10	0.36
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	<0.020	----	----	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.034	----	0.057	<0.020	0.109
Zinc	7440-66-6	E440/VA	0.50	mg/kg		104	----	108	123	115
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	70.8	----	----	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		33.4	----	32.4	32.3	34.4
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	24.2	----	----	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	<0.20	----	----	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	----	<0.20	<0.20	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	----	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	<0.040	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-24-DM-3a-L	CFMP-24-DM-5-C	CFMP-24-DM-5-L	CFMP-24-DM-8-C	CFMP-27-DM-8-L
					Client sampling date / time	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00
						VA23C4435-026	VA23C4435-027	VA23C4435-028	VA23C4435-029	VA23C4435-030
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		----	67.9	66.3	70.6	----
Moisture	----	E144-H/VA	2.0	%		71.2	----	----	----	69.4
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		----	206	<2.0	246	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		<5.0	----	----	----	6.0
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		----	66.2	0.44	72.1	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		1.2	----	----	----	1.8
Antimony	7440-36-0	E472/VA	0.010	mg/kg		<0.010	----	----	----	<0.010
Antimony	7440-36-0	E440/VA	0.010	mg/kg		----	0.013	<0.010	0.015	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	----	<0.0020
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		----	0.0042	<0.0020	0.0043	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		----	0.061	<0.020	0.110	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		0.042	----	----	----	0.034
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		----	0.0195	0.0040	0.0322	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		0.0121	----	----	----	0.0105
Barium	7440-39-3	E472/VA	0.050	mg/kg		<0.050	----	----	----	<0.050
Barium	7440-39-3	E440/VA	0.050	mg/kg		----	10.6	<0.050	8.93	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		0.014	----	----	----	<0.010
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		----	3.42	<0.010	2.62	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		<0.010	----	----	----	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		----	<0.010	<0.010	<0.010	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	----	<0.0020
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	<0.0020	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		<0.010	----	----	----	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		----	0.023	<0.010	0.094	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	----	<0.0020
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		----	0.0073	<0.0020	0.0275	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		<1.0	----	----	----	<1.0
Boron	7440-42-8	E440/VA	1.0	mg/kg		----	4.0	1.3	2.4	----
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		0.23	----	----	----	<0.20

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-24-DM-3a-L	CFMP-24-DM-5-C	CFMP-24-DM-5-L	CFMP-24-DM-8-C	CFMP-27-DM-8-L
					Client sampling date / time	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00
						VA23C4435-026	VA23C4435-027	VA23C4435-028	VA23C4435-029	VA23C4435-030
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		----	1.29	0.44	0.69	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		----	0.0631	0.0747	0.0496	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		0.246	----	----	----	0.128
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		----	0.0203	0.0252	0.0146	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		0.0711	----	----	----	0.0394
Calcium	7440-70-2	E472/VA	20	mg/kg		361	----	----	----	188
Calcium	7440-70-2	E440/VA	20	mg/kg		----	38100	137	37700	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		104	----	----	----	57.4
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		----	12200	46.0	11100	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		0.0559	----	----	----	0.0324
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		----	0.908	0.836	0.0361	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		0.0161	----	----	----	0.0099
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		----	0.292	0.282	0.0106	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		----	0.511	<0.050	0.560	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		<0.20	----	----	----	<0.20
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		----	0.164	<0.010	0.164	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	----	<0.040
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		0.547	----	----	----	0.402
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		----	0.120	0.123	0.191	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		0.158	----	----	----	0.123
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		----	0.0384	0.0415	0.0560	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		----	11.6	25.4	12.8	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		31.9	----	----	----	37.8
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		----	3.71	8.55	3.75	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		9.19	----	----	----	11.6
Iron	7439-89-6	E440/VA	3.0	mg/kg		----	295	368	277	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		393	----	----	----	489
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		----	94.7	124	81.4	----
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		113	----	----	----	150
Lead	7439-92-1	E440/VA	0.020	mg/kg		----	0.154	<0.020	0.167	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-24-DM-3a-L	CFMP-24-DM-5-C	CFMP-24-DM-5-L	CFMP-24-DM-8-C	CFMP-27-DM-8-L
					Client sampling date / time	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00
						VA23C4435-026	VA23C4435-027	VA23C4435-028	VA23C4435-029	VA23C4435-030
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		<0.050	----	----	----	<0.050
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		----	0.0494	<0.0040	0.0492	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		<0.010	----	----	----	<0.010
Lithium	7439-93-2	E472/VA	0.50	mg/kg		<0.50	----	----	----	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg		----	<0.50	<0.50	<0.50	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		<0.10	----	----	----	<0.10
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		----	<0.10	<0.10	<0.10	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		925	----	----	----	878
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		----	1600	744	1570	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		267	----	----	----	269
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		----	515	250	462	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		9.54	----	----	----	16.8
Manganese	7439-96-5	E440/VA	0.050	mg/kg		----	24.8	9.10	16.1	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		2.75	----	----	----	5.15
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		----	7.97	3.06	4.72	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		0.0156	----	----	----	0.0093
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		----	0.0388	0.0662	0.0095	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		0.0045	----	----	----	0.0028
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		----	0.0124	0.0223	0.0028	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		----	1.02	5.92	0.792	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		4.55	----	----	----	5.10
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		----	0.329	1.99	0.232	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		1.31	----	----	----	1.56
Nickel	7440-02-0	E472/VA	0.20	mg/kg		<0.20	----	----	----	<0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg		----	1.04	<0.20	1.54	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	----	<0.040
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		----	0.334	<0.040	0.453	----
Phosphorus	7723-14-0	E472/VA	10	mg/kg		13000	----	----	----	12400
Phosphorus	7723-14-0	E440/VA	10	mg/kg		----	27200	13000	27600	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		3760	----	----	----	3800

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-24-DM-3a-L	CFMP-24-DM-5-C	CFMP-24-DM-5-L	CFMP-24-DM-8-C	CFMP-27-DM-8-L
					Client sampling date / time	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00
						VA23C4435-026	VA23C4435-027	VA23C4435-028	VA23C4435-029	VA23C4435-030
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		----	8740	4360	8090	----
Potassium	7440-09-7	E472/VA	20	mg/kg		11000	----	----	----	11200
Potassium	7440-09-7	E440/VA	20	mg/kg		----	11800	11300	10900	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		3170	----	----	----	3450
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		----	3790	3800	3210	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		20.9	----	----	----	16.4
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		----	33.8	49.0	14.1	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		6.04	----	----	----	5.02
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		----	10.8	16.5	4.15	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		----	1.06	5.42	1.22	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg		5.67	----	----	----	8.13
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		----	0.340	1.83	0.359	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		1.64	----	----	----	2.49
Sodium	7440-23-5	E472/VA	20	mg/kg		5300	----	----	----	4040
Sodium	7440-23-5	E440/VA	20	mg/kg		----	5400	3260	5070	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		1530	----	----	----	1240
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		----	1740	1100	1490	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		----	21.6	<0.050	24.2	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		0.50	----	----	----	0.17
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		----	6.94	0.015	7.10	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		0.144	----	----	----	0.053
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		<0.020	----	----	----	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		----	<0.020	<0.020	<0.020	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		<0.0040	----	----	----	<0.0040
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	<0.0040	<0.0040	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		0.0281	----	----	----	0.0168
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		----	0.0038	0.0021	0.0127	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		0.00810	----	----	----	0.00515
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		----	0.00123	0.00072	0.00374	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		<0.10	----	----	----	<0.10

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-24-DM-3a-L	CFMP-24-DM-5-C	CFMP-24-DM-5-L	CFMP-24-DM-8-C	CFMP-27-DM-8-L
					Client sampling date / time	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00
						VA23C4435-026	VA23C4435-027	VA23C4435-028	VA23C4435-029	VA23C4435-030
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		----	<0.10	<0.10	<0.10	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		<0.020	----	----	----	<0.020
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		----	<0.020	<0.020	0.022	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		<0.0020	----	----	----	<0.0020
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		----	0.0110	<0.0020	0.122	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		<0.00040	----	----	----	<0.00040
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		----	0.00355	<0.00040	0.0359	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		<0.10	----	----	----	<0.10
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		----	0.17	<0.10	0.21	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		<0.020	----	----	----	<0.020
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		----	0.055	<0.020	0.062	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		----	115	87.1	118	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		132	----	----	----	89.9
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		----	36.9	29.3	34.5	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		38.0	----	----	----	27.5
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		<0.20	----	----	----	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		----	<0.20	<0.20	<0.20	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	----	<0.040
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		----	<0.040	<0.040	<0.040	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-27-DM-1-C	CFMP-27-DM-1-L	CFMP-27-DM-11-C	CFMP-27-DM-11-L	CFMP-27-DM-11a-C
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C4435-031	VA23C4435-032	VA23C4435-033	VA23C4435-034	VA23C4435-035
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		69.0	69.3	69.9	----	71.0
Moisture	----	E144-H/VA	2.0	%		----	----	----	69.4	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		126	<2.0	151	----	60.1
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	----	<5.0	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		39.1	0.54	45.5	----	17.4
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	----	<1.0	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	----	<0.010	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		0.252	<0.010	0.022	----	<0.010
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	----	<0.0020	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		0.0780	<0.0020	0.0066	----	0.0028
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.051	<0.020	0.048	----	0.032
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	----	<0.030	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0159	<0.0040	0.0146	----	0.0092
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	----	0.0066	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	----	<0.050	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		21.5	<0.050	30.2	----	22.8
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	----	<0.010	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		6.68	0.011	9.07	----	6.61
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	----	<0.010	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	----	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	----	<0.0020	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	0.0029	----	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	----	<0.010	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	----	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	----	<0.0020	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		0.0023	<0.0020	0.0028	----	<0.0020
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	----	<1.0	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		2.4	<1.0	2.1	----	1.6
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	----	<0.20	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-27-DM-1-C	CFMP-27-DM-1-L	CFMP-27-DM-11-C	CFMP-27-DM-11-L	CFMP-27-DM-11a-C
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C4435-031	VA23C4435-032	VA23C4435-033	VA23C4435-034	VA23C4435-035
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		0.74	0.24	0.64	----	0.47
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0456	0.164	0.0935	----	0.0492
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	----	0.057	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0142	0.0503	0.0281	----	0.0142
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	----	0.0174	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	----	154	----
Calcium	7440-70-2	E440/VA	20	mg/kg		25400	164	36900	----	32900
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	----	47.1	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		7880	50.3	11100	----	9530
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	----	0.0654	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.128	0.104	0.0736	----	0.0567
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	----	0.0200	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0397	0.0318	0.0222	----	0.0164
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.351	<0.050	0.636	----	0.259
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	----	<0.20	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.109	<0.010	0.191	----	0.075
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	----	<0.040	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	----	0.182	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.072	0.189	0.170	----	0.080
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	----	0.0556	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0222	0.0582	0.0513	----	0.0232
Copper	7440-50-8	E440/VA	0.10	mg/kg		11.9	17.3	15.4	----	12.5
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	----	26.6	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		3.68	5.32	4.64	----	3.63
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	----	8.12	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		240	347	274	----	230
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	----	423	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		74.4	107	82.5	----	66.5
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	----	129	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.070	<0.020	0.056	----	0.034

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-27-DM-1-C	CFMP-27-DM-1-L	CFMP-27-DM-11-C	CFMP-27-DM-11-L	CFMP-27-DM-11a-C
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C4435-031	VA23C4435-032	VA23C4435-033	VA23C4435-034	VA23C4435-035
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	----	<0.050	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0217	<0.0040	0.0169	----	0.0100
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	----	<0.010	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	----	<0.50	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	----	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	----	<0.10	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	----	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	----	742	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1210	753	1670	----	1430
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	----	227	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		377	231	503	----	415
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	----	12.8	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		9.20	10.8	20.8	----	11.2
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	----	3.91	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		2.86	3.32	6.26	----	3.23
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	----	0.0156	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0246	0.0226	0.0233	----	0.0174
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	----	0.0048	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0076	0.0069	0.0070	----	0.0050
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.634	5.57	0.792	----	0.526
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	----	5.60	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.197	1.71	0.238	----	0.152
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	----	1.71	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	----	<0.20	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		1.00	<0.20	1.90	----	0.47
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	----	0.040	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		0.311	<0.040	0.572	----	0.135
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	----	12000	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		20700	13000	27100	----	25400
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	----	3670	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-27-DM-1-C	CFMP-27-DM-1-L	CFMP-27-DM-11-C	CFMP-27-DM-11-L	CFMP-27-DM-11a-C
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C4435-031	VA23C4435-032	VA23C4435-033	VA23C4435-034	VA23C4435-035
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		6430	3990	8140	----	7370
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	----	9600	----
Potassium	7440-09-7	E440/VA	20	mg/kg		9910	11500	10300	----	10500
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	----	2940	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3080	3550	3100	----	3050
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	----	15.7	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		16.4	24.0	14.5	----	12.7
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	----	4.81	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		5.10	7.36	4.37	----	3.68
Selenium	7782-49-2	E440/VA	0.050	mg/kg		1.06	4.49	1.20	----	1.02
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	----	4.76	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.330	1.38	0.361	----	0.294
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	----	1.46	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	----	4000	----
Sodium	7440-23-5	E440/VA	20	mg/kg		5060	4460	5010	----	5750
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	----	1220	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		1570	1370	1510	----	1660
Strontium	7440-24-6	E440/VA	0.050	mg/kg		26.2	0.088	43.2	----	32.9
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	----	0.20	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		8.12	0.027	13.0	----	9.53
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	----	0.063	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	----	<0.020	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	----	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	----	<0.0040	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	----	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	----	0.0093	----
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0054	0.0044	0.0140	----	0.0144
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	----	----	0.00283	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00168	0.00137	0.00423	----	0.00416
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	----	<0.10	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-27-DM-1-C	CFMP-27-DM-1-L	CFMP-27-DM-11-C	CFMP-27-DM-11-L	CFMP-27-DM-11a-C
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00	21-Sep-2023 00:00
						VA23C4435-031	VA23C4435-032	VA23C4435-033	VA23C4435-034	VA23C4435-035
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		<0.10	<0.10	<0.10	----	<0.10
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	----	<0.020	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		<0.020	<0.020	0.022	----	<0.020
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	----	<0.0020	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0096	<0.0020	0.376	----	0.120
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	----	<0.00040	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.00298	<0.00040	0.113	----	0.0347
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	----	<0.10	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	<0.10	0.44	----	0.20
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	----	<0.020	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.025	<0.020	0.134	----	0.058
Zinc	7440-66-6	E440/VA	0.50	mg/kg		99.6	86.0	108	----	113
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	----	94.8	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		30.9	26.4	32.6	----	32.8
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	----	29.0	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	----	<0.20	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	----	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	----	<0.040	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	0.051	----	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-27-DM-11 a-L	CFMP-27-DM-14 -C	CFMP-27-DM-14 -L	CFMP-27-DM-14 a-C	CFMP-27-DM-14 a-L
					Client sampling date / time	21-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-036	VA23C4435-037	VA23C4435-038	VA23C4435-039	VA23C4435-040
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		----	66.8	68.6	67.3	----
Moisture	----	E144-H/VA	2.0	%		70.4	----	----	----	67.0
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		----	175	<2.0	51.1	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		<5.0	----	----	----	<5.0
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		----	58.1	0.44	16.7	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		<1.0	----	----	----	1.2
Antimony	7440-36-0	E472/VA	0.010	mg/kg		<0.010	----	----	----	<0.010
Antimony	7440-36-0	E440/VA	0.010	mg/kg		----	<0.010	<0.010	<0.010	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	----	<0.0020
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		----	0.0030	<0.0020	0.0020	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		----	0.100	0.027	0.031	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		<0.030	----	----	----	<0.030
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		----	0.0331	0.0085	0.0100	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		<0.0060	----	----	----	<0.0060
Barium	7440-39-3	E472/VA	0.050	mg/kg		<0.050	----	----	----	0.480
Barium	7440-39-3	E440/VA	0.050	mg/kg		----	16.0	<0.050	31.2	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		<0.010	----	----	----	0.158
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		----	5.32	0.015	10.2	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		<0.010	----	----	----	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		----	<0.010	<0.010	<0.010	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	----	<0.0020
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	<0.0020	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		<0.010	----	----	----	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		----	<0.010	<0.010	<0.010	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	----	----	<0.0020
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	<0.0020	<0.0020	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		<1.0	----	----	----	<1.0
Boron	7440-42-8	E440/VA	1.0	mg/kg		----	4.7	<1.0	4.3	----
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		<0.20	----	----	----	<0.20

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-27-DM-11 a-L	CFMP-27-DM-14 -C	CFMP-27-DM-14 -L	CFMP-27-DM-14 a-C	CFMP-27-DM-14 a-L
					Client sampling date / time	21-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-036	VA23C4435-037	VA23C4435-038	VA23C4435-039	VA23C4435-040
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		----	1.56	0.22	1.40	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		----	0.0315	0.0281	0.0343	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		0.051	----	----	----	0.037
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		----	0.0104	0.0088	0.0112	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		0.0151	----	----	----	0.0122
Calcium	7440-70-2	E472/VA	20	mg/kg		141	----	----	----	331
Calcium	7440-70-2	E440/VA	20	mg/kg		----	22100	174	31700	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		41.7	----	----	----	109
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		----	7330	54.4	10400	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		0.0568	----	----	----	0.0731
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		----	0.156	0.144	0.0750	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		0.0168	----	----	----	0.0242
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		----	0.0516	0.0452	0.0245	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		----	0.292	<0.050	0.140	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		<0.20	----	----	----	<0.20
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		----	0.097	<0.010	0.046	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	----	<0.040
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		0.116	----	----	----	0.171
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		----	0.119	0.143	0.152	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		0.0344	----	----	----	0.0565
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		----	0.0396	0.0450	0.0496	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		----	19.0	14.6	21.8	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		26.2	----	----	----	19.9
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		----	6.30	4.59	7.13	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		7.74	----	----	----	6.56
Iron	7439-89-6	E440/VA	3.0	mg/kg		----	350	455	301	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		382	----	----	----	306
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		----	116	142	98.6	----
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		113	----	----	----	101
Lead	7439-92-1	E440/VA	0.020	mg/kg		----	1.03	0.035	0.117	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-27-DM-11 a-L	CFMP-27-DM-14 -C	CFMP-27-DM-14 -L	CFMP-27-DM-14 a-C	CFMP-27-DM-14 a-L
					Client sampling date / time	21-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-036	VA23C4435-037	VA23C4435-038	VA23C4435-039	VA23C4435-040
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		<0.050	----	----	----	<0.050
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		----	0.340	0.0110	0.0381	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		<0.010	----	----	----	<0.010
Lithium	7439-93-2	E472/VA	0.50	mg/kg		<0.50	----	----	----	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg		----	<0.50	<0.50	<0.50	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		<0.10	----	----	----	<0.10
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		----	<0.10	<0.10	<0.10	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		862	----	----	----	915
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		----	1410	732	1510	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		255	----	----	----	302
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		----	467	229	494	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		12.4	----	----	----	20.4
Manganese	7439-96-5	E440/VA	0.050	mg/kg		----	17.8	9.38	43.8	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		3.67	----	----	----	6.74
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		----	5.90	2.94	14.3	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		0.0121	----	----	----	0.0180
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		----	0.0282	0.0254	0.0234	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		0.0036	----	----	----	0.0059
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		----	0.0093	0.0079	0.0076	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		----	0.647	4.50	1.16	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		5.90	----	----	----	5.74
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		----	0.214	1.41	0.381	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		1.74	----	----	----	1.90
Nickel	7440-02-0	E472/VA	0.20	mg/kg		<0.20	----	----	----	<0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg		----	0.48	<0.20	0.70	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	----	0.043
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		----	0.160	<0.040	0.229	----
Phosphorus	7723-14-0	E472/VA	10	mg/kg		13400	----	----	----	11800
Phosphorus	7723-14-0	E440/VA	10	mg/kg		----	18900	12600	24100	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		3950	----	----	----	3880

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-27-DM-11 a-L	CFMP-27-DM-14 -C	CFMP-27-DM-14 -L	CFMP-27-DM-14 a-C	CFMP-27-DM-14 a-L
					Client sampling date / time	21-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-036	VA23C4435-037	VA23C4435-038	VA23C4435-039	VA23C4435-040
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		----	6260	3940	7870	----
Potassium	7440-09-7	E472/VA	20	mg/kg		10900	----	----	----	7650
Potassium	7440-09-7	E440/VA	20	mg/kg		----	9640	10000	9480	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		3220	----	----	----	2530
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		----	3200	3140	3100	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		16.1	----	----	----	14.1
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		----	13.0	20.5	13.6	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		4.76	----	----	----	4.68
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		----	4.33	6.43	4.47	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		----	0.784	3.39	0.847	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg		4.32	----	----	----	3.20
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		----	0.260	1.06	0.277	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		1.28	----	----	----	1.06
Sodium	7440-23-5	E472/VA	20	mg/kg		4390	----	----	----	3540
Sodium	7440-23-5	E440/VA	20	mg/kg		----	4780	4140	4430	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		1300	----	----	----	1170
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		----	1580	1300	1450	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		----	21.8	0.110	34.9	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		0.14	----	----	----	0.87
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		----	7.23	0.034	11.4	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		0.042	----	----	----	0.287
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		<0.020	----	----	----	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		----	<0.020	<0.020	<0.020	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		<0.0040	----	----	----	<0.0040
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	<0.0040	<0.0040	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		0.0209	----	----	----	0.0046
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		----	0.0030	<0.0020	0.0062	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		0.00619	----	----	----	0.00152
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		----	0.00101	0.00059	0.00204	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		<0.10	----	----	----	<0.10

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-27-DM-11 a-L	CFMP-27-DM-14 -C	CFMP-27-DM-14 -L	CFMP-27-DM-14 a-C	CFMP-27-DM-14 a-L
					Client sampling date / time	21-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-036	VA23C4435-037	VA23C4435-038	VA23C4435-039	VA23C4435-040
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		----	<0.10	<0.10	<0.10	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		<0.020	----	----	----	<0.020
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		----	<0.020	<0.020	<0.020	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		<0.0020	----	----	----	0.0036
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		----	0.0046	<0.0020	0.0278	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		<0.00040	----	----	----	0.00119
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		----	0.00152	<0.00040	0.00910	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		<0.10	----	----	----	<0.10
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		----	0.39	<0.10	0.14	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		<0.020	----	----	----	<0.020
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		----	0.131	<0.020	0.046	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		----	84.6	68.9	98.4	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		95.4	----	----	----	83.5
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		----	28.0	21.6	32.2	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		28.2	----	----	----	27.6
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		<0.20	----	----	----	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		----	<0.20	<0.20	<0.20	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		<0.040	----	----	----	<0.040
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		----	<0.040	<0.040	<0.040	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-27-DM-15-C	CFMP-27-DM-15-L	CFMP-27-DM-2-C	CFMP-27-DM-2-L	CFMP-27-DM-8-C
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-041	VA23C4435-042	VA23C4435-043	VA23C4435-044	VA23C4435-045
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		66.4	----	70.5	----	65.5
Moisture	----	E144-H/VA	2.0	%		----	67.7	----	70.1	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		120	----	129	----	325
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	<5.0	----	<5.0	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		40.4	----	38.1	----	112
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	<1.0	----	<1.0	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	<0.010	----	<0.010	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	----	0.240	----	0.230
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	0.0020	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		0.0031	----	0.0708	----	0.0794
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.044	----	0.055	----	0.046
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	0.038	----	0.032	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0146	----	0.0162	----	0.0160
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	0.0124	----	0.0095	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	<0.050	----	<0.050	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		20.6	----	28.8	----	13.0
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	0.013	----	0.013	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		6.94	----	8.50	----	4.49
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	<0.010	----	<0.010	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	----	<0.010	----	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	<0.0020	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	----	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	<0.010	----	<0.010	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	----	<0.010	----	0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	<0.0020	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	0.0025	----	0.0035
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	<1.0	----	<1.0	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		2.7	----	1.6	----	4.1
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	<0.20	----	<0.20	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-27-DM-15-C	CFMP-27-DM-15-L	CFMP-27-DM-2-C	CFMP-27-DM-2-L	CFMP-27-DM-8-C
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-041	VA23C4435-042	VA23C4435-043	VA23C4435-044	VA23C4435-045
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		0.91	----	0.49	----	1.41
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0373	----	0.0531	----	0.0709
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	0.047	----	0.044	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0126	----	0.0157	----	0.0245
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	0.0152	----	0.0133	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	209	----	173	----
Calcium	7440-70-2	E440/VA	20	mg/kg		22700	----	37800	----	24600
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	67.4	----	51.6	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		7650	----	11200	----	8500
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	0.0975	----	0.155	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.118	----	0.147	----	0.146
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	0.0314	----	0.0465	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0399	----	0.0433	----	0.0504
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.309	----	0.403	----	0.906
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	0.60	----	<0.20	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.104	----	0.119	----	0.313
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	0.195	----	<0.040	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	0.144	----	0.158	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.083	----	0.106	----	0.071
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	0.0465	----	0.0472	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0281	----	0.0313	----	0.0246
Copper	7440-50-8	E440/VA	0.10	mg/kg		9.82	----	12.0	----	16.4
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	17.2	----	20.5	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		3.30	----	3.53	----	5.65
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	5.54	----	6.14	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		254	----	234	----	289
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	500	----	469	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		85.6	----	69.2	----	99.6
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	161	----	140	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.263	----	0.100	----	0.277

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-27-DM-15-C	CFMP-27-DM-15-L	CFMP-27-DM-2-C	CFMP-27-DM-2-L	CFMP-27-DM-8-C
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-041	VA23C4435-042	VA23C4435-043	VA23C4435-044	VA23C4435-045
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	<0.050	----	<0.050	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0885	----	0.0294	----	0.0958
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	<0.010	----	<0.010	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	<0.50	----	<0.50	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	----	<0.50	----	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	<0.10	----	<0.10	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	----	<0.10	----	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	747	----	788	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1170	----	1460	----	1360
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	241	----	236	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		393	----	430	----	469
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	9.73	----	12.9	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		15.9	----	11.2	----	23.5
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	3.14	----	3.85	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		5.34	----	3.31	----	8.12
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	0.0163	----	0.0609	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0241	----	0.0417	----	0.0198
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	0.0053	----	0.0182	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0081	----	0.0123	----	0.0068
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.651	----	0.477	----	0.644
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	4.49	----	5.08	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.219	----	0.141	----	0.222
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	1.45	----	1.52	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	<0.20	----	<0.20	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		0.39	----	1.52	----	1.30
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	<0.040	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		0.132	----	0.449	----	0.450
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	12200	----	12600	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		18700	----	27600	----	19700
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	3950	----	3760	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-27-DM-15-C	CFMP-27-DM-15-L	CFMP-27-DM-2-C	CFMP-27-DM-2-L	CFMP-27-DM-8-C
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-041	VA23C4435-042	VA23C4435-043	VA23C4435-044	VA23C4435-045
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		6290	----	8140	----	6800
Potassium	7440-09-7	E472/VA	20	mg/kg		----	9430	----	10500	----
Potassium	7440-09-7	E440/VA	20	mg/kg		8300	----	9690	----	8350
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	3040	----	3150	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		2790	----	2860	----	2880
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	26.8	----	22.9	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		16.7	----	19.2	----	14.4
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	8.63	----	6.86	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		5.61	----	5.66	----	4.96
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.832	----	0.949	----	0.685
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	3.30	----	4.04	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.280	----	0.280	----	0.236
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	1.06	----	1.21	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	4580	----	4030	----
Sodium	7440-23-5	E440/VA	20	mg/kg		4170	----	4900	----	4340
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	1480	----	1200	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		1400	----	1450	----	1500
Strontium	7440-24-6	E440/VA	0.050	mg/kg		20.9	----	38.0	----	20.0
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	0.11	----	0.16	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		7.04	----	11.2	----	6.91
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	0.034	----	0.047	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	<0.020	----	<0.020	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	----	<0.020	----	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	<0.0040	----	<0.0040	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	----	<0.0040	----	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	<0.0020	----	0.0199	----
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0037	----	0.0123	----	0.0029
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	0.00063	----	0.00595	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00125	----	0.00362	----	0.00101
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	<0.10	----	<0.10	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-27-DM-15-C	CFMP-27-DM-15-L	CFMP-27-DM-2-C	CFMP-27-DM-2-L	CFMP-27-DM-8-C
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-041	VA23C4435-042	VA23C4435-043	VA23C4435-044	VA23C4435-045
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.16	----	<0.10	----	<0.10
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	<0.020	----	<0.020	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.055	----	<0.020	----	0.022
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	<0.0020	----	<0.0020	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0026	----	0.0738	----	0.0024
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	<0.00040	----	<0.00040	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.00089	----	0.0218	----	0.00082
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	<0.10	----	<0.10	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		0.26	----	0.18	----	0.13
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	<0.020	----	<0.020	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.086	----	0.054	----	0.045
Zinc	7440-66-6	E440/VA	0.50	mg/kg		80.2	----	107	----	84.7
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	75.4	----	81.1	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		27.0	----	31.5	----	29.2
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	24.3	----	24.2	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	<0.20	----	<0.20	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	----	<0.20	----	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	<0.040	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	----	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-27-DM-8-L	CFMP-27-RBV-13-C	CFMP-27-RBV-13-L	CFMP-27-RBV-3-C	CFMP-27-RBV-3-L
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-046	VA23C4435-047	VA23C4435-048	VA23C4435-049	VA23C4435-050
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		64.6	72.6	----	73.0	----
Moisture	----	E144-H/VA	2.0	%		----	----	70.8	----	70.3
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		<2.0	24.8	----	228	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	<5.0	----	<5.0
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		0.63	6.78	----	61.7	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	<1.0	----	<1.0
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	<0.010	----	<0.010
Antimony	7440-36-0	E440/VA	0.010	mg/kg		<0.010	<0.010	----	0.051	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	<0.0020
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	0.0139	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		<0.020	0.050	----	0.118	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	0.043	----	0.055
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		<0.0040	0.0137	----	0.0318	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	0.0126	----	0.0164
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	0.111	----	<0.050
Barium	7440-39-3	E440/VA	0.050	mg/kg		0.072	13.4	----	14.6	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	0.032	----	0.012
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		0.026	3.66	----	3.96	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	<0.010	----	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	----	<0.010	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	<0.0020
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	0.0021	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	<0.010	----	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	----	0.011	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	<0.0020
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	----	0.0031	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	<1.0	----	<1.0
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	3.8	----	3.9	----
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	<0.20	----	<0.20

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-27-DM-8-L	CFMP-27-RBV-13-C	CFMP-27-RBV-13-L	CFMP-27-RBV-3-C	CFMP-27-RBV-3-L
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-046	VA23C4435-047	VA23C4435-048	VA23C4435-049	VA23C4435-050
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		<0.20	1.04	----	1.06	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0563	0.118	----	0.0889	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	0.162	----	0.045
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0199	0.0323	----	0.0240	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	0.0471	----	0.0135
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	214	----	210
Calcium	7440-70-2	E440/VA	20	mg/kg		149	28100	----	35800	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	62.4	----	62.3
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		52.6	7680	----	9690	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	0.345	----	0.556
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.116	0.458	----	0.646	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	0.100	----	0.165
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0411	0.125	----	0.175	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.624	0.142	----	0.765	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	<0.20	----	<0.20
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.221	0.039	----	0.207	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	<0.040
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	0.078	----	0.055
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.071	0.205	----	0.280	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	0.0226	----	0.0164
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0253	0.0562	----	0.0756	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		14.8	9.89	----	11.9	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	12.0	----	15.3
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		5.23	2.71	----	3.22	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	3.48	----	4.56
Iron	7439-89-6	E440/VA	3.0	mg/kg		292	253	----	316	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	1260	----	877
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		103	69.1	----	85.3	----
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	367	----	261
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.062	0.038	----	0.112	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-27-DM-8-L	CFMP-27-RBV-13-C	CFMP-27-RBV-13-L	CFMP-27-RBV-3-C	CFMP-27-RBV-3-L
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-046	VA23C4435-047	VA23C4435-048	VA23C4435-049	VA23C4435-050
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	<0.050	----	<0.050
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0221	0.0104	----	0.0302	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	<0.010	----	<0.010
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	<0.50	----	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	----	<0.50	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	<0.10	----	<0.10
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	----	<0.10	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	732	----	792
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		694	1630	----	1890	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	213	----	236
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		246	446	----	511	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	9.96	----	8.92
Manganese	7439-96-5	E440/VA	0.050	mg/kg		8.69	27.5	----	32.4	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	2.90	----	2.65
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		3.08	7.53	----	8.77	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	0.620	----	0.140
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0184	0.172	----	0.150	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	0.181	----	0.0418
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0065	0.0470	----	0.0406	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		3.78	0.800	----	0.676	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	4.57	----	3.14
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		1.34	0.219	----	0.182	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	1.33	----	0.932
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	<0.20	----	<0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg		<0.20	0.62	----	0.95	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	<0.040
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		<0.040	0.170	----	0.258	----
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	11300	----	12400
Phosphorus	7723-14-0	E440/VA	10	mg/kg		11200	23500	----	28400	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	3280	----	3690

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-27-DM-8-L	CFMP-27-RBV-13-C	CFMP-27-RBV-13-L	CFMP-27-RBV-3-C	CFMP-27-RBV-3-L
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-046	VA23C4435-047	VA23C4435-048	VA23C4435-049	VA23C4435-050
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		3960	6440	----	7670	----
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	9270	----	10500
Potassium	7440-09-7	E440/VA	20	mg/kg		9730	12100	----	13500	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	2700	----	3120
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3450	3310	----	3650	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	26.3	----	33.1
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		24.5	24.9	----	36.5	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	7.66	----	9.85
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		8.68	6.81	----	9.86	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		3.36	1.00	----	1.19	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	2.91	----	3.01
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		1.19	0.274	----	0.323	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	0.849	----	0.895
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	3760	----	4030
Sodium	7440-23-5	E440/VA	20	mg/kg		3260	4920	----	4820	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	1100	----	1200
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		1160	1350	----	1300	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		0.092	31.5	----	48.0	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	0.33	----	0.19
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		0.032	8.62	----	13.0	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	0.097	----	0.056
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	<0.020	----	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	----	<0.020	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	<0.0040	----	<0.0040
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	----	<0.0040	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	<0.0020	----	0.0066
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		<0.0020	0.0025	----	0.0116	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	----	<0.00040	----	0.00195
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		<0.00040	0.00068	----	0.00312	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	<0.10	----	<0.10

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-27-DM-8-L	CFMP-27-RBV-13-C	CFMP-27-RBV-13-L	CFMP-27-RBV-3-C	CFMP-27-RBV-3-L
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-046	VA23C4435-047	VA23C4435-048	VA23C4435-049	VA23C4435-050
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		<0.10	<0.10	----	0.11	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	<0.020	----	<0.020
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		<0.020	0.022	----	0.030	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	<0.0020	----	<0.0020
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		<0.0020	<0.0020	----	0.257	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	<0.00040	----	<0.00040
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		<0.00040	<0.00040	----	0.0694	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	<0.10	----	<0.10
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	<0.10	----	0.41	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	<0.020	----	<0.020
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		<0.020	<0.020	----	0.112	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		76.3	88.5	----	102	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	67.5	----	75.1
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		27.0	24.2	----	27.6	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	19.7	----	22.3
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	<0.20	----	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	----	<0.20	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	<0.040
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	----	<0.040	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-1-C	CFMP-32-RBV-1-L	CFMP-32-RBV-11-C	CFMP-32-RBV-11-L	CFMP-32-RBV-11a-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-051	VA23C4435-052	VA23C4435-053	VA23C4435-054	VA23C4435-055
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		72.3	----	75.1	----	69.1
Moisture	----	E144-H/VA	2.0	%		----	71.3	----	71.9	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		161	----	108	----	72.3
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	<5.0	----	<5.0	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		44.6	----	26.7	----	22.4
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	<1.0	----	<1.0	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	<0.010	----	<0.010	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		0.094	----	0.011	----	0.178
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	<0.0020	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		0.0262	----	0.0028	----	0.0552
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.047	----	0.061	----	0.274
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	<0.030	----	<0.030	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0131	----	0.0151	----	0.0846
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	<0.0060	----	0.0074	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	<0.050	----	<0.050	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		15.3	----	8.64	----	14.6
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	0.010	----	0.013	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		4.24	----	2.15	----	4.51
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	<0.010	----	<0.010	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	----	<0.010	----	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	<0.0020	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	----	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	<0.010	----	<0.010	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		0.020	----	<0.010	----	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	0.0028	----	<0.0020	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		0.0055	----	0.0022	----	0.0029
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	<1.0	----	<1.0	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		3.6	----	2.1	----	3.1
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	<0.20	----	<0.20	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-1-C	CFMP-32-RBV-1-L	CFMP-32-RBV-11-C	CFMP-32-RBV-11-L	CFMP-32-RBV-11a-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-051	VA23C4435-052	VA23C4435-053	VA23C4435-054	VA23C4435-055
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		0.98	----	0.52	----	0.97
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0754	----	0.0599	----	0.0679
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	0.048	----	0.028	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0209	----	0.0149	----	0.0210
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	0.0139	----	0.0080	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	134	----	177	----
Calcium	7440-70-2	E440/VA	20	mg/kg		29100	----	25700	----	38300
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	38.3	----	49.8	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		8060	----	6390	----	11800
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	0.958	----	0.424	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.996	----	0.563	----	4.82
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	0.274	----	0.119	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.276	----	0.140	----	1.49
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.414	----	0.264	----	0.270
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	<0.20	----	<0.20	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.115	----	0.066	----	0.084
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	<0.040	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	0.086	----	0.055	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.164	----	0.113	----	0.173
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	0.0245	----	0.0154	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0455	----	0.0280	----	0.0536
Copper	7440-50-8	E440/VA	0.10	mg/kg		9.43	----	7.16	----	8.94
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	18.0	----	12.9	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		2.62	----	1.78	----	2.76
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	5.17	----	3.64	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		271	----	282	----	253
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	587	----	928	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		75.2	----	70.1	----	78.4
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	168	----	261	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.304	----	0.115	----	0.128

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-1-C	CFMP-32-RBV-1-L	CFMP-32-RBV-11-C	CFMP-32-RBV-11-L	CFMP-32-RBV-11a-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-051	VA23C4435-052	VA23C4435-053	VA23C4435-054	VA23C4435-055
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	<0.050	----	<0.050	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0844	----	0.0286	----	0.0398
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	<0.010	----	<0.010	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	<0.50	----	<0.50	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	----	<0.50	----	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	<0.10	----	<0.10	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	----	<0.10	----	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	925	----	848	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1610	----	1380	----	1830
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	265	----	238	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		447	----	343	----	566
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	11.7	----	11.0	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		43.6	----	45.5	----	37.2
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	3.35	----	3.10	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		12.1	----	11.3	----	11.5
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	0.553	----	0.546	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.500	----	0.572	----	0.628
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	0.158	----	0.153	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.139	----	0.142	----	0.194
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.472	----	0.383	----	0.663
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	2.38	----	2.80	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.131	----	0.0953	----	0.205
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	0.682	----	0.789	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	<0.20	----	<0.20	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		1.44	----	0.44	----	0.69
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	<0.040	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		0.400	----	0.110	----	0.214
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	12700	----	13000	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		24400	----	24200	----	27800
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	3630	----	3650	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-1-C	CFMP-32-RBV-1-L	CFMP-32-RBV-11-C	CFMP-32-RBV-11-L	CFMP-32-RBV-11a-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-051	VA23C4435-052	VA23C4435-053	VA23C4435-054	VA23C4435-055
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		6760	----	6010	----	8600
Potassium	7440-09-7	E472/VA	20	mg/kg		----	10300	----	10600	----
Potassium	7440-09-7	E440/VA	20	mg/kg		13200	----	12900	----	11300
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	2960	----	2980	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3660	----	3220	----	3490
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	33.5	----	36.1	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		38.2	----	39.3	----	53.3
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	9.61	----	10.2	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		10.6	----	9.77	----	16.5
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.474	----	0.567	----	0.593
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	1.10	----	1.80	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.132	----	0.141	----	0.183
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	0.316	----	0.507	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	2900	----	3810	----
Sodium	7440-23-5	E440/VA	20	mg/kg		4780	----	4840	----	5310
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	833	----	1070	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		1330	----	1200	----	1640
Strontium	7440-24-6	E440/VA	0.050	mg/kg		17.7	----	17.6	----	24.4
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	<0.10	----	0.24	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		4.91	----	4.37	----	7.54
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	0.026	----	0.068	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	<0.020	----	<0.020	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	----	<0.020	----	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	<0.0040	----	<0.0040	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	----	<0.0040	----	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	0.0086	----	0.0108	----
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0089	----	0.0110	----	0.0113
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	0.00246	----	0.00305	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00246	----	0.00274	----	0.00349
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	<0.10	----	<0.10	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-1-C	CFMP-32-RBV-1-L	CFMP-32-RBV-11-C	CFMP-32-RBV-11-L	CFMP-32-RBV-11a-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-051	VA23C4435-052	VA23C4435-053	VA23C4435-054	VA23C4435-055
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.16	----	0.26	----	<0.10
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	<0.020	----	<0.020	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.045	----	0.065	----	<0.020
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	<0.0020	----	<0.0020	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0021	----	0.0435	----	0.0283
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	<0.00040	----	<0.00040	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.00057	----	0.0108	----	0.00875
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	<0.10	----	<0.10	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	----	0.23	----	0.13
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	<0.020	----	<0.020	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.023	----	0.057	----	0.039
Zinc	7440-66-6	E440/VA	0.50	mg/kg		86.4	----	93.9	----	107
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	66.9	----	69.5	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		24.0	----	23.3	----	33.1
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	19.2	----	19.6	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	<0.20	----	<0.20	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	----	<0.20	----	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	<0.040	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	----	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-1 1a-L	CFMP-32-RBV-1 1b-C	CFMP-32-RBV-1 1b-L	CFMP-32-RBV-1 2-C	CFMP-32-RBV-1 2-L
					Client sampling date / time	22-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00
						VA23C4435-056	VA23C4435-057	VA23C4435-058	VA23C4435-059	VA23C4435-060
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		----	72.3	----	69.6	----
Moisture	----	E144A/VA	2.0	%		68.7	----	----	----	69.3
Moisture	----	E144-H/VA	2.0	%		----	----	68.8	----	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		----	85.6	----	177	----
Aluminum	7429-90-5	E475/VA	5.0	mg/kg		<5.0	----	----	----	14.5
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	<5.0	----	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		----	23.7	----	53.9	----
Aluminum	7429-90-5	E475A/VA	1.0	mg/kg wwt		<1.0	----	----	----	4.4
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	<1.0	----	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	<0.010	----	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		----	0.015	----	0.234	----
Antimony	7440-36-0	E475/VA	0.020	mg/kg		0.023	----	----	----	0.027
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	0.0031	----	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		----	0.0043	----	0.0711	----
Antimony	7440-36-0	E475A/VA	0.0040	mg/kg wwt		0.0072	----	----	----	0.0082
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		----	0.163	----	0.066	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	<0.030	----	----
Arsenic	7440-38-2	E475/VA	0.050	mg/kg		<0.050	----	----	----	0.055
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		----	0.0452	----	0.0199	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	0.0089	----	----
Arsenic	7440-38-2	E475A/VA	0.010	mg/kg wwt		0.012	----	----	----	0.017
Barium	7440-39-3	E475/VA	0.050	mg/kg		<0.050	----	----	----	0.444
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	<0.050	----	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		----	16.8	----	22.6	----
Barium	7440-39-3	E475A/VA	0.010	mg/kg wwt		0.010	----	----	----	0.136
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	<0.010	----	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		----	4.66	----	6.87	----
Beryllium	7440-41-7	E475/VA	0.010	mg/kg		<0.010	----	----	----	<0.010
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	<0.010	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-1 1a-L	CFMP-32-RBV-1 1b-C	CFMP-32-RBV-1 1b-L	CFMP-32-RBV-1 2-C	CFMP-32-RBV-1 2-L
					Client sampling date / time	22-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00
						VA23C4435-056	VA23C4435-057	VA23C4435-058	VA23C4435-059	VA23C4435-060
						Result	Result	Result	Result	Result
Metals										
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		----	<0.010	----	<0.010	----
Beryllium	7440-41-7	E475A/VA	0.0020	mg/kg wwt		<0.0020	----	----	----	<0.0020
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	----	<0.0020	----
Bismuth	7440-69-9	E475/VA	0.010	mg/kg		<0.010	----	----	----	0.023
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	0.016	----	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		----	<0.010	----	0.023	----
Bismuth	7440-69-9	E475A/VA	0.0020	mg/kg wwt		0.0029	----	----	----	0.0070
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	0.0051	----	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		----	0.0026	----	0.0070	----
Boron	7440-42-8	E475/VA	1.0	mg/kg		<1.0	----	----	----	<1.0
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	<1.0	----	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		----	3.6	----	2.1	----
Boron	7440-42-8	E475A/VA	0.20	mg/kg wwt		0.22	----	----	----	0.21
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	<0.20	----	----
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		----	1.01	----	0.64	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		----	0.0700	----	0.0904	----
Cadmium	7440-43-9	E475/VA	0.010	mg/kg		0.138	----	----	----	0.120
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	0.220	----	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		----	0.0194	----	0.0275	----
Cadmium	7440-43-9	E475A/VA	0.0020	mg/kg wwt		0.0433	----	----	----	0.0367
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	0.0687	----	----
Calcium	7440-70-2	E475/VA	20	mg/kg		111	----	----	----	421
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	134	----	----
Calcium	7440-70-2	E440/VA	20	mg/kg		----	27800	----	36900	----
Calcium	7440-70-2	E475A/VA	4.0	mg/kg wwt		34.8	----	----	----	129
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	41.9	----	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		----	7710	----	11200	----
Cesium	7440-46-2	E475/VA	0.0050	mg/kg		3.98	----	----	----	5.12
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	0.846	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-1 1a-L	CFMP-32-RBV-1 1b-C	CFMP-32-RBV-1 1b-L	CFMP-32-RBV-1 2-C	CFMP-32-RBV-1 2-L
					Client sampling date / time	22-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00
						VA23C4435-056	VA23C4435-057	VA23C4435-058	VA23C4435-059	VA23C4435-060
						Result	Result	Result	Result	Result
Metals										
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		----	1.06	----	5.03	----
Cesium	7440-46-2	E475A/VA	0.0010	mg/kg wwt		1.24	----	----	----	1.57
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	0.264	----	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		----	0.293	----	1.53	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		----	0.368	----	0.480	----
Chromium	7440-47-3	E475/VA	0.20	mg/kg		<0.20	----	----	----	<0.20
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	0.23	----	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		----	0.102	----	0.146	----
Chromium	7440-47-3	E475A/VA	0.040	mg/kg wwt		<0.040	----	----	----	<0.040
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	0.071	----	----
Cobalt	7440-48-4	E475/VA	0.020	mg/kg		0.112	----	----	----	0.167
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	0.108	----	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		----	0.243	----	0.172	----
Cobalt	7440-48-4	E475A/VA	0.0040	mg/kg wwt		0.0351	----	----	----	0.0514
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	0.0338	----	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		----	0.0673	----	0.0523	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		----	16.3	----	9.28	----
Copper	7440-50-8	E475/VA	0.20	mg/kg		17.8	----	----	----	16.7
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	14.8	----	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		----	4.52	----	2.82	----
Copper	7440-50-8	E475A/VA	0.040	mg/kg wwt		5.57	----	----	----	5.13
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	4.63	----	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		----	305	----	249	----
Iron	7439-89-6	E475/VA	5.0	mg/kg		457	----	----	----	774
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	914	----	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		----	84.6	----	75.8	----
Iron	7439-89-6	E475A/VA	1.0	mg/kg wwt		143	----	----	----	238
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	285	----	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		----	0.098	----	0.126	----
Lead	7439-92-1	E475/VA	0.050	mg/kg		<0.050	----	----	----	<0.050

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-1 1a-L	CFMP-32-RBV-1 1b-C	CFMP-32-RBV-1 1b-L	CFMP-32-RBV-1 2-C	CFMP-32-RBV-1 2-L
					Client sampling date / time	22-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00
						VA23C4435-056	VA23C4435-057	VA23C4435-058	VA23C4435-059	VA23C4435-060
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	<0.050	----	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		----	0.0272	----	0.0384	----
Lead	7439-92-1	E475A/VA	0.010	mg/kg wwt		<0.010	----	----	----	<0.010
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	<0.010	----	----
Lithium	7439-93-2	E475/VA	0.50	mg/kg		<0.50	----	----	----	<0.50
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	<0.50	----	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		----	<0.50	----	<0.50	----
Lithium	7439-93-2	E475A/VA	0.10	mg/kg wwt		<0.10	----	----	----	<0.10
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	<0.10	----	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		----	<0.10	----	<0.10	----
Magnesium	7439-95-4	E475/VA	2.0	mg/kg		862	----	----	----	763
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	968	----	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		----	1720	----	1600	----
Magnesium	7439-95-4	E475A/VA	0.40	mg/kg wwt		270	----	----	----	234
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	302	----	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		----	478	----	486	----
Manganese	7439-96-5	E475/VA	0.050	mg/kg		13.9	----	----	----	12.1
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	14.8	----	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		----	65.2	----	41.3	----
Manganese	7439-96-5	E475A/VA	0.010	mg/kg wwt		4.34	----	----	----	3.73
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	4.63	----	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		----	18.1	----	12.6	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	1.37	----	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		----	0.829	----	0.528	----
Mercury	7439-97-6	E512/VA	0.010	mg/kg		0.630	----	----	----	0.872
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	0.427	----	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		----	0.230	----	0.160	----
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt		0.197	----	----	----	0.268
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		----	0.489	----	0.372	----
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg		4.68	----	----	----	3.41

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-1 1a-L	CFMP-32-RBV-1 1b-C	CFMP-32-RBV-1 1b-L	CFMP-32-RBV-1 2-C	CFMP-32-RBV-1 2-L
					Client sampling date / time	22-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00
						VA23C4435-056	VA23C4435-057	VA23C4435-058	VA23C4435-059	VA23C4435-060
						Result	Result	Result	Result	Result
Metals										
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	3.24	----	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		----	0.136	----	0.113	----
Molybdenum	7439-98-7	E475A/VA	0.0080	mg/kg wwt		1.46	----	----	----	1.05
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	1.01	----	----
Nickel	7440-02-0	E475/VA	0.20	mg/kg		<0.20	----	----	----	0.21
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		----	0.63	----	1.10	----
Nickel	7440-02-0	E475A/VA	0.040	mg/kg wwt		<0.040	----	----	----	0.065
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		----	0.174	----	0.336	----
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	12100	----	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		----	24900	----	27500	----
Phosphorus	7723-14-0	E475/VA	20	mg/kg		12100	----	----	----	11200
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	3790	----	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		----	6920	----	8370	----
Phosphorus	7723-14-0	E475A/VA	4.0	mg/kg wwt		3780	----	----	----	3460
Potassium	7440-09-7	E475/VA	20	mg/kg		9740	----	----	----	9110
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	10600	----	----
Potassium	7440-09-7	E440/VA	20	mg/kg		----	13800	----	11000	----
Potassium	7440-09-7	E475A/VA	4.0	mg/kg wwt		3050	----	----	----	2800
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	3310	----	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		----	3810	----	3330	----
Rubidium	7440-17-7	E475/VA	0.050	mg/kg		47.3	----	----	----	59.4
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	27.2	----	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		----	35.9	----	61.9	----
Rubidium	7440-17-7	E475A/VA	0.010	mg/kg wwt		14.8	----	----	----	18.2
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	8.48	----	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		----	9.97	----	18.8	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		----	0.712	----	0.667	----
Selenium	7782-49-2	E475/VA	0.10	mg/kg		1.69	----	----	----	2.25

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-1 1a-L	CFMP-32-RBV-1 1b-C	CFMP-32-RBV-1 1b-L	CFMP-32-RBV-1 2-C	CFMP-32-RBV-1 2-L
					Client sampling date / time	22-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00
						VA23C4435-056	VA23C4435-057	VA23C4435-058	VA23C4435-059	VA23C4435-060
						Result	Result	Result	Result	Result
Metals										
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	2.03	----	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		----	0.197	----	0.203	----
Selenium	7782-49-2	E475A/VA	0.020	mg/kg wwt		0.528	----	----	----	0.690
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	0.635	----	----
Sodium	7440-23-5	E475/VA	20	mg/kg		3390	----	----	----	3510
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	3140	----	----
Sodium	7440-23-5	E440/VA	20	mg/kg		----	4830	----	4310	----
Sodium	7440-23-5	E475A/VA	4.0	mg/kg wwt		1060	----	----	----	1080
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	982	----	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		----	1340	----	1310	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		----	27.5	----	30.4	----
Strontium	7440-24-6	E475/VA	0.10	mg/kg		<0.10	----	----	----	0.63
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	0.14	----	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		----	7.63	----	9.26	----
Strontium	7440-24-6	E475A/VA	0.020	mg/kg wwt		0.025	----	----	----	0.194
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	0.044	----	----
Tellurium	13494-80-9	E475/VA	0.020	mg/kg		<0.020	----	----	----	<0.020
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	<0.020	----	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		----	<0.020	----	<0.020	----
Tellurium	13494-80-9	E475A/VA	0.0040	mg/kg wwt		<0.0040	----	----	----	<0.0040
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	<0.0040	----	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	----	<0.0040	----
Thallium	7440-28-0	E475/VA	0.0020	mg/kg		0.0045	----	----	----	0.0093
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	0.0073	----	----
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		----	0.0156	----	0.0162	----
Thallium	7440-28-0	E475A/VA	0.00040	mg/kg wwt		0.00141	----	----	----	0.00287
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	----	0.00227	----	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		----	0.00434	----	0.00492	----
Tin	7440-31-5	E475/VA	0.10	mg/kg		<0.10	----	----	----	<0.10
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	<0.10	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-1 1a-L	CFMP-32-RBV-1 1b-C	CFMP-32-RBV-1 1b-L	CFMP-32-RBV-1 2-C	CFMP-32-RBV-1 2-L
					Client sampling date / time	22-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	20-Sep-2023 00:00	20-Sep-2023 00:00
						VA23C4435-056	VA23C4435-057	VA23C4435-058	VA23C4435-059	VA23C4435-060
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		----	<0.10	----	<0.10	----
Tin	7440-31-5	E475A/VA	0.020	mg/kg wwt		<0.020	----	----	----	<0.020
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	<0.020	----	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		----	0.027	----	<0.020	----
Uranium	7440-61-1	E475/VA	0.0020	mg/kg		<0.0020	----	----	----	0.0140
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	<0.0020	----	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		----	0.156	----	0.132	----
Uranium	7440-61-1	E475A/VA	0.00040	mg/kg wwt		<0.00040	----	----	----	0.00430
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	<0.00040	----	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		----	0.0432	----	0.0401	----
Vanadium	7440-62-2	E475/VA	0.10	mg/kg		<0.10	----	----	----	<0.10
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	<0.10	----	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		----	0.24	----	0.21	----
Vanadium	7440-62-2	E475A/VA	0.020	mg/kg wwt		<0.020	----	----	----	<0.020
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	<0.020	----	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		----	0.068	----	0.064	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		----	117	----	98.9	----
Zinc	7440-66-6	E475/VA	1.0	mg/kg		87.4	----	----	----	72.6
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	72.8	----	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		----	32.5	----	30.1	----
Zinc	7440-66-6	E475A/VA	0.20	mg/kg wwt		27.4	----	----	----	22.3
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	22.7	----	----
Zirconium	7440-67-7	E475/VA	0.20	mg/kg		<0.20	----	----	----	<0.20
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	<0.20	----	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		----	<0.20	----	<0.20	----
Zirconium	7440-67-7	E475A/VA	0.040	mg/kg wwt		<0.040	----	----	----	<0.040
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		----	<0.040	----	<0.040	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-1 2a-C	CFMP-32-RBV-1 2a-L	CFMP-32-RBV-1 2b-C	CFMP-32-RBV-1 2b-L	CFMP-32-RBV-5 -C
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-061	VA23C4435-062	VA23C4435-063	VA23C4435-064	VA23C4435-065
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		72.6	69.5	73.1	----	71.9
Moisture	----	E144-H/VA	2.0	%		----	----	----	70.5	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		122	9.9	54.0	----	162
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	----	<5.0	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		33.4	3.01	14.5	----	45.5
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	----	<1.0	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	----	<0.010	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		0.183	0.016	0.186	----	0.258
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	----	0.0024	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		0.0503	0.0049	0.0500	----	0.0724
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.079	0.024	0.041	----	0.146
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	----	<0.030	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0217	0.0074	0.0110	----	0.0411
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	----	0.0078	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	----	0.142	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		16.0	0.172	33.0	----	12.2
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	----	0.042	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		4.39	0.052	8.88	----	3.42
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	----	<0.010	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	----	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	----	<0.0020	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	----	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	----	0.016	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		0.021	0.021	<0.010	----	0.011
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	----	0.0046	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		0.0059	0.0065	<0.0020	----	0.0031
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	----	<1.0	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		3.2	<1.0	1.5	----	3.8
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	----	<0.20	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-1 2a-C	CFMP-32-RBV-1 2a-L	CFMP-32-RBV-1 2b-C	CFMP-32-RBV-1 2b-L	CFMP-32-RBV-5 -C
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-061	VA23C4435-062	VA23C4435-063	VA23C4435-064	VA23C4435-065
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		0.87	<0.20	0.42	----	1.06
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.101	0.332	0.466	----	0.0612
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	----	0.465	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0277	0.101	0.125	----	0.0172
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	----	0.137	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	----	162	----
Calcium	7440-70-2	E440/VA	20	mg/kg		30700	180	29900	----	33600
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	----	47.6	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		8410	54.9	8060	----	9450
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	----	18.4	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		2.06	1.65	19.0	----	0.446
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	----	5.44	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.566	0.502	5.13	----	0.125
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.371	<0.050	0.257	----	0.514
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	----	<0.20	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.102	<0.010	0.069	----	0.144
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	----	0.055	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	----	0.095	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.246	0.109	0.154	----	0.225
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	----	0.0279	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0674	0.0332	0.0414	----	0.0633
Copper	7440-50-8	E440/VA	0.10	mg/kg		9.48	13.9	11.4	----	9.74
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	----	20.5	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		2.60	4.25	3.07	----	2.73
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	----	6.04	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		359	1000	262	----	358
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	----	937	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		98.4	306	70.6	----	100
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	----	276	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.125	0.035	0.194	----	0.182

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-1 2a-C	CFMP-32-RBV-1 2a-L	CFMP-32-RBV-1 2b-C	CFMP-32-RBV-1 2b-L	CFMP-32-RBV-5 -C
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-061	VA23C4435-062	VA23C4435-063	VA23C4435-064	VA23C4435-065
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	----	<0.050	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0343	0.0108	0.0523	----	0.0511
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	----	0.015	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	----	<0.50	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	----	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	----	<0.10	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	----	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	----	905	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1550	882	1660	----	1680
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	----	267	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		425	269	446	----	472
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	----	12.2	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		54.8	12.2	27.0	----	45.5
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	----	3.61	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		15.0	3.72	7.26	----	12.8
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	----	0.734	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.774	1.43	0.393	----	0.465
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	----	0.216	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.212	0.435	0.106	----	0.131
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.445	3.22	0.487	----	0.544
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	----	3.86	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.122	0.982	0.131	----	0.153
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	----	1.14	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	----	<0.20	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		0.87	<0.20	0.59	----	0.85
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	----	<0.040	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		0.239	<0.040	0.158	----	0.239
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	----	13100	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		24600	13400	27200	----	26600
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	----	3870	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-1 2a-C	CFMP-32-RBV-1 2a-L	CFMP-32-RBV-1 2b-C	CFMP-32-RBV-1 2b-L	CFMP-32-RBV-5 -C
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-061	VA23C4435-062	VA23C4435-063	VA23C4435-064	VA23C4435-065
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		6740	4080	7310	----	7480
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	----	11400	----
Potassium	7440-09-7	E440/VA	20	mg/kg		12800	10100	13100	----	11800
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	----	3350	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3500	3070	3520	----	3300
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	----	124	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		50.4	41.7	119	----	31.9
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	----	36.5	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		13.8	12.7	31.9	----	8.96
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.750	2.01	0.506	----	0.542
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	----	1.10	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.206	0.614	0.136	----	0.152
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	----	0.324	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	----	4140	----
Sodium	7440-23-5	E440/VA	20	mg/kg		5340	3620	5230	----	5050
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	----	1220	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		1460	1100	1410	----	1420
Strontium	7440-24-6	E440/VA	0.050	mg/kg		26.7	0.287	29.0	----	27.6
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	----	0.18	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		7.33	0.087	7.82	----	7.76
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	----	0.052	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	----	<0.020	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	----	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	----	<0.0040	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	----	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	----	0.0084	----
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0123	0.0078	0.0192	----	0.0113
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	----	----	0.00248	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00338	0.00236	0.00516	----	0.00319
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	----	<0.10	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-1 2a-C	CFMP-32-RBV-1 2a-L	CFMP-32-RBV-1 2b-C	CFMP-32-RBV-1 2b-L	CFMP-32-RBV-5 -C
					Client sampling date / time	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-061	VA23C4435-062	VA23C4435-063	VA23C4435-064	VA23C4435-065
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		<0.10	<0.10	0.27	----	0.25
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	----	<0.020	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		<0.020	<0.020	0.072	----	0.072
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	----	<0.0020	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.154	<0.0020	<0.0020	----	0.0985
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	----	<0.00040	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.0421	<0.00040	0.00040	----	0.0276
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	----	<0.10	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		0.30	<0.10	<0.10	----	0.39
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	----	<0.020	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.082	<0.020	<0.020	----	0.110
Zinc	7440-66-6	E440/VA	0.50	mg/kg		105	70.9	109	----	100
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	----	93.5	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		28.8	21.6	29.4	----	28.2
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	----	27.6	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	----	<0.20	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	0.38	----	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	----	<0.040	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	<0.040	0.103	----	0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-5-L	CFMP-32-RBV-8-C	CFMP-32-RBV-8-L	CFMP-32-RBV-9-C	CFMP-32-RBV-9-L
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-066	VA23C4435-067	VA23C4435-068	VA23C4435-069	VA23C4435-070
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		----	71.9	----	73.3	----
Moisture	----	E144A/VA	2.0	%		70.5	----	----	----	----
Moisture	----	E144-H/VA	2.0	%		----	----	72.2	----	70.4
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		----	122	----	247	----
Aluminum	7429-90-5	E475/VA	5.0	mg/kg		9.1	----	----	----	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	16.6	----	172
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		----	34.2	----	66.0	----
Aluminum	7429-90-5	E475A/VA	1.0	mg/kg wwt		2.7	----	----	----	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	4.6	----	50.9
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	0.034	----	0.065
Antimony	7440-36-0	E440/VA	0.010	mg/kg		----	0.232	----	0.257	----
Antimony	7440-36-0	E475/VA	0.020	mg/kg		0.025	----	----	----	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	0.0094	----	0.0192
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		----	0.0650	----	0.0686	----
Antimony	7440-36-0	E475A/VA	0.0040	mg/kg wwt		0.0074	----	----	----	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		----	0.054	----	0.068	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	0.042	----	0.069
Arsenic	7440-38-2	E475/VA	0.050	mg/kg		0.065	----	----	----	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		----	0.0153	----	0.0182	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	0.0116	----	0.0203
Arsenic	7440-38-2	E475A/VA	0.010	mg/kg wwt		0.019	----	----	----	----
Barium	7440-39-3	E475/VA	0.050	mg/kg		0.432	----	----	----	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	0.537	----	1.77
Barium	7440-39-3	E440/VA	0.050	mg/kg		----	12.3	----	13.2	----
Barium	7440-39-3	E475A/VA	0.010	mg/kg wwt		0.127	----	----	----	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	0.149	----	0.523
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		----	3.45	----	3.53	----
Beryllium	7440-41-7	E475/VA	0.010	mg/kg		<0.010	----	----	----	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	<0.010	----	<0.010

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-5-L	CFMP-32-RBV-8-C	CFMP-32-RBV-8-L	CFMP-32-RBV-9-C	CFMP-32-RBV-9-L
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-066	VA23C4435-067	VA23C4435-068	VA23C4435-069	VA23C4435-070
						Result	Result	Result	Result	Result
Metals										
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		----	<0.010	----	<0.010	----
Beryllium	7440-41-7	E475A/VA	0.0020	mg/kg wwt		<0.0020	----	----	----	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	<0.0020
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	----	<0.0020	----
Bismuth	7440-69-9	E475/VA	0.010	mg/kg		<0.010	----	----	----	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	<0.010	----	0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		----	0.018	----	0.016	----
Bismuth	7440-69-9	E475A/VA	0.0020	mg/kg wwt		<0.0020	----	----	----	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	0.0030
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		----	0.0050	----	0.0042	----
Boron	7440-42-8	E475/VA	1.0	mg/kg		<1.0	----	----	----	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	<1.0	----	5.5
Boron	7440-42-8	E440/VA	1.0	mg/kg		----	4.4	----	2.8	----
Boron	7440-42-8	E475A/VA	0.20	mg/kg wwt		0.23	----	----	----	----
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	0.26	----	1.63
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		----	1.23	----	0.76	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		----	0.0535	----	0.305	----
Cadmium	7440-43-9	E475/VA	0.010	mg/kg		0.181	----	----	----	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	0.241	----	0.330
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		----	0.0150	----	0.0813	----
Cadmium	7440-43-9	E475A/VA	0.0020	mg/kg wwt		0.0532	----	----	----	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	0.0671	----	0.0974
Calcium	7440-70-2	E475/VA	20	mg/kg		318	----	----	----	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	383	----	852
Calcium	7440-70-2	E440/VA	20	mg/kg		----	27900	----	29200	----
Calcium	7440-70-2	E475A/VA	4.0	mg/kg wwt		93.7	----	----	----	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	107	----	252
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		----	7840	----	7800	----
Cesium	7440-46-2	E475/VA	0.0050	mg/kg		0.354	----	----	----	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	0.387	----	0.639

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-5-L	CFMP-32-RBV-8-C	CFMP-32-RBV-8-L	CFMP-32-RBV-9-C	CFMP-32-RBV-9-L
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-066	VA23C4435-067	VA23C4435-068	VA23C4435-069	VA23C4435-070
						Result	Result	Result	Result	Result
Metals										
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		----	0.397	----	0.903	----
Cesium	7440-46-2	E475A/VA	0.0010	mg/kg wwt		0.104	----	----	----	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	0.108	----	0.189
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		----	0.112	----	0.241	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		----	0.431	----	0.710	----
Chromium	7440-47-3	E475/VA	0.20	mg/kg		<0.20	----	----	----	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	<0.20	----	0.46
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		----	0.121	----	0.189	----
Chromium	7440-47-3	E475A/VA	0.040	mg/kg wwt		<0.040	----	----	----	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	0.137
Cobalt	7440-48-4	E475/VA	0.020	mg/kg		0.070	----	----	----	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	0.066	----	0.142
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		----	0.150	----	0.194	----
Cobalt	7440-48-4	E475A/VA	0.0040	mg/kg wwt		0.0205	----	----	----	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	0.0184	----	0.0421
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		----	0.0421	----	0.0519	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		----	9.59	----	13.5	----
Copper	7440-50-8	E475/VA	0.20	mg/kg		15.2	----	----	----	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	14.5	----	23.0
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		----	2.69	----	3.59	----
Copper	7440-50-8	E475A/VA	0.040	mg/kg wwt		4.48	----	----	----	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	4.05	----	6.78
Iron	7439-89-6	E440/VA	3.0	mg/kg		----	263	----	370	----
Iron	7439-89-6	E475/VA	5.0	mg/kg		775	----	----	----	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	553	----	760
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		----	73.8	----	98.7	----
Iron	7439-89-6	E475A/VA	1.0	mg/kg wwt		228	----	----	----	----
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	154	----	225
Lead	7439-92-1	E440/VA	0.020	mg/kg		----	0.206	----	0.223	----
Lead	7439-92-1	E475/VA	0.050	mg/kg		<0.050	----	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-5-L	CFMP-32-RBV-8-C	CFMP-32-RBV-8-L	CFMP-32-RBV-9-C	CFMP-32-RBV-9-L
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-066	VA23C4435-067	VA23C4435-068	VA23C4435-069	VA23C4435-070
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	<0.050	----	0.116
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		----	0.0578	----	0.0595	----
Lead	7439-92-1	E475A/VA	0.010	mg/kg wwt		<0.010	----	----	----	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	<0.010	----	0.034
Lithium	7439-93-2	E475/VA	0.50	mg/kg		<0.50	----	----	----	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	<0.50	----	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg		----	<0.50	----	<0.50	----
Lithium	7439-93-2	E475A/VA	0.10	mg/kg wwt		<0.10	----	----	----	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	<0.10	----	<0.10
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		----	<0.10	----	<0.10	----
Magnesium	7439-95-4	E475/VA	2.0	mg/kg		868	----	----	----	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	958	----	1250
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		----	1510	----	1560	----
Magnesium	7439-95-4	E475A/VA	0.40	mg/kg wwt		256	----	----	----	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	267	----	368
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		----	425	----	417	----
Manganese	7439-96-5	E475/VA	0.050	mg/kg		12.8	----	----	----	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	16.2	----	35.6
Manganese	7439-96-5	E440/VA	0.050	mg/kg		----	65.5	----	67.1	----
Manganese	7439-96-5	E475A/VA	0.010	mg/kg wwt		3.78	----	----	----	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	4.51	----	10.5
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		----	18.4	----	17.9	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	0.591	----	0.523
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		----	0.435	----	0.644	----
Mercury	7439-97-6	E512/VA	0.010	mg/kg		0.717	----	----	----	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	0.165	----	0.155
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		----	0.122	----	0.172	----
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt		0.211	----	----	----	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		----	0.542	----	0.506	----
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg		2.60	----	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-5-L	CFMP-32-RBV-8-C	CFMP-32-RBV-8-L	CFMP-32-RBV-9-C	CFMP-32-RBV-9-L
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-066	VA23C4435-067	VA23C4435-068	VA23C4435-069	VA23C4435-070
						Result	Result	Result	Result	Result
Metals										
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	2.40	----	2.36
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		----	0.152	----	0.135	----
Molybdenum	7439-98-7	E475A/VA	0.0080	mg/kg wwt		0.768	----	----	----	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	0.670	----	0.697
Nickel	7440-02-0	E475/VA	0.20	mg/kg		<0.20	----	----	----	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	<0.20	----	4.09
Nickel	7440-02-0	E440/VA	0.20	mg/kg		----	0.84	----	2.06	----
Nickel	7440-02-0	E475A/VA	0.040	mg/kg wwt		<0.040	----	----	----	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	0.053	----	1.21
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		----	0.235	----	0.548	----
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	12600	----	11700
Phosphorus	7723-14-0	E440/VA	10	mg/kg		----	23900	----	25000	----
Phosphorus	7723-14-0	E475/VA	20	mg/kg		12100	----	----	----	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	3510	----	3470
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		----	6710	----	6680	----
Phosphorus	7723-14-0	E475A/VA	4.0	mg/kg wwt		3580	----	----	----	----
Potassium	7440-09-7	E475/VA	20	mg/kg		9740	----	----	----	----
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	10500	----	10300
Potassium	7440-09-7	E440/VA	20	mg/kg		----	11900	----	13200	----
Potassium	7440-09-7	E475A/VA	4.0	mg/kg wwt		2870	----	----	----	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	2920	----	3040
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		----	3340	----	3530	----
Rubidium	7440-17-7	E475/VA	0.050	mg/kg		29.0	----	----	----	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	32.9	----	34.1
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		----	33.7	----	43.4	----
Rubidium	7440-17-7	E475A/VA	0.010	mg/kg wwt		8.56	----	----	----	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	9.17	----	10.1
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		----	9.47	----	11.6	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		----	0.539	----	0.560	----
Selenium	7782-49-2	E475/VA	0.10	mg/kg		1.47	----	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-5-L	CFMP-32-RBV-8-C	CFMP-32-RBV-8-L	CFMP-32-RBV-9-C	CFMP-32-RBV-9-L
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-066	VA23C4435-067	VA23C4435-068	VA23C4435-069	VA23C4435-070
						Result	Result	Result	Result	Result
Metals										
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	1.32	----	1.07
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		----	0.151	----	0.149	----
Selenium	7782-49-2	E475A/VA	0.020	mg/kg wwt		0.433	----	----	----	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	0.369	----	0.317
Sodium	7440-23-5	E475/VA	20	mg/kg		3700	----	----	----	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	4250	----	3910
Sodium	7440-23-5	E440/VA	20	mg/kg		----	4640	----	5050	----
Sodium	7440-23-5	E475A/VA	4.0	mg/kg wwt		1090	----	----	----	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	1180	----	1150
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		----	1300	----	1350	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		----	23.4	----	22.8	----
Strontium	7440-24-6	E475/VA	0.10	mg/kg		0.84	----	----	----	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	1.21	----	1.84
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		----	6.58	----	6.09	----
Strontium	7440-24-6	E475A/VA	0.020	mg/kg wwt		0.246	----	----	----	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	0.336	----	0.544
Tellurium	13494-80-9	E475/VA	0.020	mg/kg		<0.020	----	----	----	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	<0.020	----	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		----	<0.020	----	<0.020	----
Tellurium	13494-80-9	E475A/VA	0.0040	mg/kg wwt		<0.0040	----	----	----	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	<0.0040	----	<0.0040
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	----	<0.0040	----
Thallium	7440-28-0	E475/VA	0.0020	mg/kg		0.0083	----	----	----	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	0.0114	----	0.0096
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		----	0.0122	----	0.0111	----
Thallium	7440-28-0	E475A/VA	0.00040	mg/kg wwt		0.00244	----	----	----	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	----	0.00317	----	0.00284
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		----	0.00342	----	0.00296	----
Tin	7440-31-5	E475/VA	0.10	mg/kg		<0.10	----	----	----	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	1.24	----	<0.10

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-32-RBV-5-L	CFMP-32-RBV-8-C	CFMP-32-RBV-8-L	CFMP-32-RBV-9-C	CFMP-32-RBV-9-L
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-066	VA23C4435-067	VA23C4435-068	VA23C4435-069	VA23C4435-070
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		----	0.28	----	0.22	----
Tin	7440-31-5	E475A/VA	0.020	mg/kg wwt		<0.020	----	----	----	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	0.344	----	<0.020
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		----	0.079	----	0.060	----
Uranium	7440-61-1	E475/VA	0.0020	mg/kg		0.0073	----	----	----	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	0.0164	----	0.0189
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		----	0.0959	----	0.0793	----
Uranium	7440-61-1	E475A/VA	0.00040	mg/kg wwt		0.00214	----	----	----	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	0.00456	----	0.00559
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		----	0.0269	----	0.0212	----
Vanadium	7440-62-2	E475/VA	0.10	mg/kg		<0.10	----	----	----	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	<0.10	----	<0.10
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		----	0.21	----	0.20	----
Vanadium	7440-62-2	E475A/VA	0.020	mg/kg wwt		<0.020	----	----	----	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	<0.020	----	0.024
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		----	0.059	----	0.054	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		----	100	----	103	----
Zinc	7440-66-6	E475/VA	1.0	mg/kg		77.0	----	----	----	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	95.6	----	87.1
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		----	28.2	----	27.4	----
Zinc	7440-66-6	E475A/VA	0.20	mg/kg wwt		22.7	----	----	----	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	26.6	----	25.7
Zirconium	7440-67-7	E475/VA	0.20	mg/kg		<0.20	----	----	----	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	<0.20	----	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		----	<0.20	----	<0.20	----
Zirconium	7440-67-7	E475A/VA	0.040	mg/kg wwt		<0.040	----	----	----	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	<0.040
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		----	<0.040	----	<0.040	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-4-RBV-4-C	CFMP-4-RBV-4-L	CFMP-4-RBV-6-C	CFMP-4-RBV-6-L	CFMP-4-RBV-8-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	20-Sep-2023 00:00
						VA23C4435-071	VA23C4435-072	VA23C4435-073	VA23C4435-074	VA23C4435-075
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		69.9	----	71.3	----	70.9
Moisture	----	E144A/VA	2.0	%		----	72.0	----	68.4	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		118	----	99.5	----	202
Aluminum	7429-90-5	E475/VA	5.0	mg/kg		----	105	----	<5.0	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		35.4	----	28.5	----	58.9
Aluminum	7429-90-5	E475A/VA	1.0	mg/kg wwt		----	29.5	----	<1.0	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		0.013	----	0.031	----	0.388
Antimony	7440-36-0	E475/VA	0.020	mg/kg		----	<0.020	----	<0.020	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		0.0039	----	0.0089	----	0.113
Antimony	7440-36-0	E475A/VA	0.0040	mg/kg wwt		----	0.0051	----	<0.0040	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.147	----	0.090	----	0.111
Arsenic	7440-38-2	E475/VA	0.050	mg/kg		----	0.134	----	0.098	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0443	----	0.0260	----	0.0323
Arsenic	7440-38-2	E475A/VA	0.010	mg/kg wwt		----	0.038	----	0.031	----
Barium	7440-39-3	E475/VA	0.050	mg/kg		----	6.48	----	<0.050	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		27.0	----	35.9	----	20.2
Barium	7440-39-3	E475A/VA	0.010	mg/kg wwt		----	1.81	----	0.010	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		8.12	----	10.3	----	5.87
Beryllium	7440-41-7	E475/VA	0.010	mg/kg		----	<0.010	----	<0.010	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	----	<0.010	----	<0.010
Beryllium	7440-41-7	E475A/VA	0.0020	mg/kg wwt		----	<0.0020	----	<0.0020	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	----	0.0025
Bismuth	7440-69-9	E475/VA	0.010	mg/kg		----	<0.010	----	<0.010	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	----	<0.010	----	0.022
Bismuth	7440-69-9	E475A/VA	0.0020	mg/kg wwt		----	0.0021	----	<0.0020	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		0.0025	----	<0.0020	----	0.0065
Boron	7440-42-8	E475/VA	1.0	mg/kg		----	4.8	----	<1.0	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		4.0	----	3.0	----	3.7
Boron	7440-42-8	E475A/VA	0.20	mg/kg wwt		----	1.33	----	0.23	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-4-RBV-4-C	CFMP-4-RBV-4-L	CFMP-4-RBV-6-C	CFMP-4-RBV-6-L	CFMP-4-RBV-8-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	20-Sep-2023 00:00
						VA23C4435-071	VA23C4435-072	VA23C4435-073	VA23C4435-074	VA23C4435-075
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		1.21	----	0.88	----	1.09
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.204	----	0.303	----	0.175
Cadmium	7440-43-9	E475/VA	0.010	mg/kg		----	0.234	----	1.31	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0616	----	0.0870	----	0.0510
Cadmium	7440-43-9	E475A/VA	0.0020	mg/kg wwt		----	0.0655	----	0.414	----
Calcium	7440-70-2	E475/VA	20	mg/kg		----	2290	----	131	----
Calcium	7440-70-2	E440/VA	20	mg/kg		39000	----	45900	----	37600
Calcium	7440-70-2	E475A/VA	4.0	mg/kg wwt		----	643	----	41.4	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		11800	----	13200	----	10900
Cesium	7440-46-2	E475/VA	0.0050	mg/kg		----	1.11	----	1.95	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		1.50	----	2.08	----	2.88
Cesium	7440-46-2	E475A/VA	0.0010	mg/kg wwt		----	0.311	----	0.616	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.451	----	0.598	----	0.839
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.396	----	0.392	----	0.808
Chromium	7440-47-3	E475/VA	0.20	mg/kg		----	1.38	----	<0.20	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.119	----	0.112	----	0.235
Chromium	7440-47-3	E475A/VA	0.040	mg/kg wwt		----	0.385	----	<0.040	----
Cobalt	7440-48-4	E475/VA	0.020	mg/kg		----	0.138	----	0.098	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.209	----	0.145	----	0.198
Cobalt	7440-48-4	E475A/VA	0.0040	mg/kg wwt		----	0.0386	----	0.0310	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0629	----	0.0415	----	0.0576
Copper	7440-50-8	E440/VA	0.10	mg/kg		14.8	----	12.7	----	13.9
Copper	7440-50-8	E475/VA	0.20	mg/kg		----	18.3	----	21.6	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		4.45	----	3.63	----	4.04
Copper	7440-50-8	E475A/VA	0.040	mg/kg wwt		----	5.14	----	6.81	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		319	----	318	----	371
Iron	7439-89-6	E475/VA	5.0	mg/kg		----	223	----	688	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		96.2	----	91.3	----	108
Iron	7439-89-6	E475A/VA	1.0	mg/kg wwt		----	62.5	----	217	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.202	----	0.209	----	0.275

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-4-RBV-4-C	CFMP-4-RBV-4-L	CFMP-4-RBV-6-C	CFMP-4-RBV-6-L	CFMP-4-RBV-8-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	20-Sep-2023 00:00
						VA23C4435-071	VA23C4435-072	VA23C4435-073	VA23C4435-074	VA23C4435-075
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E475/VA	0.050	mg/kg		----	0.176	----	<0.050	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0609	----	0.0599	----	0.0800
Lead	7439-92-1	E475A/VA	0.010	mg/kg wwt		----	0.049	----	<0.010	----
Lithium	7439-93-2	E475/VA	0.50	mg/kg		----	<0.50	----	<0.50	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	----	<0.50	----	<0.50
Lithium	7439-93-2	E475A/VA	0.10	mg/kg wwt		----	<0.10	----	<0.10	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	----	<0.10	----	<0.10
Magnesium	7439-95-4	E475/VA	2.0	mg/kg		----	1630	----	822	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1940	----	1800	----	1790
Magnesium	7439-95-4	E475A/VA	0.40	mg/kg wwt		----	456	----	260	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		584	----	515	----	521
Manganese	7439-96-5	E475/VA	0.050	mg/kg		----	65.8	----	9.33	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		74.4	----	34.8	----	45.7
Manganese	7439-96-5	E475A/VA	0.010	mg/kg wwt		----	18.4	----	2.95	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		22.4	----	9.99	----	13.3
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.312	----	0.333	----	0.287
Mercury	7439-97-6	E512/VA	0.010	mg/kg		----	0.228	----	0.581	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0942	----	0.0955	----	0.0837
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt		----	0.0639	----	0.183	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.884	----	0.586	----	0.753
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg		----	0.949	----	5.97	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.266	----	0.168	----	0.219
Molybdenum	7439-98-7	E475A/VA	0.0080	mg/kg wwt		----	0.266	----	1.88	----
Nickel	7440-02-0	E475/VA	0.20	mg/kg		----	0.65	----	<0.20	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		0.66	----	0.46	----	1.64
Nickel	7440-02-0	E475A/VA	0.040	mg/kg wwt		----	0.182	----	<0.040	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		0.198	----	0.133	----	0.478
Phosphorus	7723-14-0	E440/VA	10	mg/kg		31500	----	32600	----	28200
Phosphorus	7723-14-0	E475/VA	20	mg/kg		----	11400	----	12800	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		9490	----	9360	----	8200

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-4-RBV-4-C	CFMP-4-RBV-4-L	CFMP-4-RBV-6-C	CFMP-4-RBV-6-L	CFMP-4-RBV-8-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	20-Sep-2023 00:00
						VA23C4435-071	VA23C4435-072	VA23C4435-073	VA23C4435-074	VA23C4435-075
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E475A/VA	4.0	mg/kg wwt		----	3200	----	4050	----
Potassium	7440-09-7	E475/VA	20	mg/kg		----	12900	----	9700	----
Potassium	7440-09-7	E440/VA	20	mg/kg		12900	----	12000	----	12200
Potassium	7440-09-7	E475A/VA	4.0	mg/kg wwt		----	3630	----	3060	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3880	----	3440	----	3570
Rubidium	7440-17-7	E475/VA	0.050	mg/kg		----	33.9	----	51.1	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		38.2	----	49.4	----	62.9
Rubidium	7440-17-7	E475A/VA	0.010	mg/kg wwt		----	9.50	----	16.1	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		11.5	----	14.2	----	18.3
Selenium	7782-49-2	E440/VA	0.050	mg/kg		1.52	----	1.45	----	0.867
Selenium	7782-49-2	E475/VA	0.10	mg/kg		----	1.54	----	5.19	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.456	----	0.417	----	0.252
Selenium	7782-49-2	E475A/VA	0.020	mg/kg wwt		----	0.430	----	1.64	----
Sodium	7440-23-5	E475/VA	20	mg/kg		----	5350	----	3530	----
Sodium	7440-23-5	E440/VA	20	mg/kg		5480	----	5470	----	4810
Sodium	7440-23-5	E475A/VA	4.0	mg/kg wwt		----	1500	----	1120	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		1650	----	1570	----	1400
Strontium	7440-24-6	E440/VA	0.050	mg/kg		32.9	----	43.9	----	43.4
Strontium	7440-24-6	E475/VA	0.10	mg/kg		----	6.49	----	0.10	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		9.91	----	12.6	----	12.6
Strontium	7440-24-6	E475A/VA	0.020	mg/kg wwt		----	1.82	----	0.033	----
Tellurium	13494-80-9	E475/VA	0.020	mg/kg		----	<0.020	----	<0.020	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	----	<0.020	----	<0.020
Tellurium	13494-80-9	E475A/VA	0.0040	mg/kg wwt		----	<0.0040	----	<0.0040	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	----	<0.0040	----	<0.0040
Thallium	7440-28-0	E475/VA	0.0020	mg/kg		----	0.0082	----	0.0124	----
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0108	----	0.0149	----	0.0182
Thallium	7440-28-0	E475A/VA	0.00040	mg/kg wwt		----	0.00230	----	0.00392	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00324	----	0.00427	----	0.00531
Tin	7440-31-5	E475/VA	0.10	mg/kg		----	<0.10	----	<0.10	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-4-RBV-4-C	CFMP-4-RBV-4-L	CFMP-4-RBV-6-C	CFMP-4-RBV-6-L	CFMP-4-RBV-8-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	20-Sep-2023 00:00
						VA23C4435-071	VA23C4435-072	VA23C4435-073	VA23C4435-074	VA23C4435-075
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.15	----	<0.10	----	<0.10
Tin	7440-31-5	E475A/VA	0.020	mg/kg wwt		----	<0.020	----	<0.020	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.045	----	0.025	----	0.027
Uranium	7440-61-1	E475/VA	0.0020	mg/kg		----	0.0646	----	<0.0020	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0853	----	0.254	----	0.311
Uranium	7440-61-1	E475A/VA	0.00040	mg/kg wwt		----	0.0181	----	<0.00040	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.0257	----	0.0728	----	0.0905
Vanadium	7440-62-2	E475/VA	0.10	mg/kg		----	0.23	----	<0.10	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		0.27	----	0.34	----	0.49
Vanadium	7440-62-2	E475A/VA	0.020	mg/kg wwt		----	0.063	----	<0.020	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.082	----	0.097	----	0.142
Zinc	7440-66-6	E440/VA	0.50	mg/kg		112	----	115	----	119
Zinc	7440-66-6	E475/VA	1.0	mg/kg		----	86.3	----	86.9	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		33.8	----	32.9	----	34.7
Zinc	7440-66-6	E475A/VA	0.20	mg/kg wwt		----	24.2	----	27.4	----
Zirconium	7440-67-7	E475/VA	0.20	mg/kg		----	<0.20	----	<0.20	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	----	<0.20	----	<0.20
Zirconium	7440-67-7	E475A/VA	0.040	mg/kg wwt		----	<0.040	----	<0.040	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	----	0.042	----	0.049

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-4-RBV-8-L	CFMP-40-DM-20-C	CFMP-40-DM-20-L	CFMP-40-DM-4-C	CFMP-40-DM-4-L
					Client sampling date / time	20-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-076	VA23C4435-077	VA23C4435-078	VA23C4435-079	VA23C4435-080
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		----	65.1	----	67.1	----
Moisture	----	E144-H/VA	2.0	%		69.7	----	68.5	----	65.9
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		----	97.1	----	83.5	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		<5.0	----	<5.0	----	<5.0
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		----	33.8	----	27.5	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		<1.0	----	<1.0	----	<1.0
Antimony	7440-36-0	E472/VA	0.010	mg/kg		<0.010	----	<0.010	----	<0.010
Antimony	7440-36-0	E440/VA	0.010	mg/kg		----	<0.010	----	0.150	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	----	0.0030
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	----	0.0493	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		----	0.064	----	0.043	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		0.049	----	<0.030	----	<0.030
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		----	0.0224	----	0.0142	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		0.0150	----	0.0078	----	0.0093
Barium	7440-39-3	E472/VA	0.050	mg/kg		<0.050	----	<0.050	----	<0.050
Barium	7440-39-3	E440/VA	0.050	mg/kg		----	13.6	----	12.6	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		0.015	----	0.011	----	<0.010
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		----	4.75	----	4.16	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		<0.010	----	<0.010	----	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		----	<0.010	----	<0.010	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	----	<0.0020
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	----	<0.0020	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		<0.010	----	<0.010	----	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		----	<0.010	----	<0.010	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	----	<0.0020
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	----	0.0020	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		<1.0	----	<1.0	----	<1.0
Boron	7440-42-8	E440/VA	1.0	mg/kg		----	5.6	----	3.9	----
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		<0.20	----	<0.20	----	<0.20

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-4-RBV-8-L	CFMP-40-DM-20-C	CFMP-40-DM-20-L	CFMP-40-DM-4-C	CFMP-40-DM-4-L
					Client sampling date / time	20-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-076	VA23C4435-077	VA23C4435-078	VA23C4435-079	VA23C4435-080
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		----	1.97	----	1.30	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		----	0.0342	----	0.0460	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		0.141	----	0.037	----	0.064
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		----	0.0119	----	0.0152	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		0.0428	----	0.0118	----	0.0220
Calcium	7440-70-2	E472/VA	20	mg/kg		193	----	128	----	123
Calcium	7440-70-2	E440/VA	20	mg/kg		----	26800	----	33600	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		58.5	----	40.4	----	42.0
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		----	9350	----	11100	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		2.33	----	0.786	----	0.335
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		----	0.846	----	0.470	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		0.705	----	0.248	----	0.114
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		----	0.295	----	0.155	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		----	0.200	----	0.260	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		<0.20	----	1.45	----	<0.20
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		----	0.070	----	0.086	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		<0.040	----	0.458	----	<0.040
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		0.137	----	0.103	----	0.125
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		----	0.174	----	0.096	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		0.0415	----	0.0326	----	0.0428
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		----	0.0608	----	0.0316	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		----	18.0	----	10.5	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		17.4	----	16.0	----	15.6
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		----	6.29	----	3.46	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		5.27	----	5.04	----	5.30
Iron	7439-89-6	E440/VA	3.0	mg/kg		----	311	----	226	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		717	----	509	----	419
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		----	108	----	74.3	----
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		217	----	160	----	143
Lead	7439-92-1	E440/VA	0.020	mg/kg		----	0.114	----	0.276	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-4-RBV-8-L	CFMP-40-DM-20-C	CFMP-40-DM-20-L	CFMP-40-DM-4-C	CFMP-40-DM-4-L
					Client sampling date / time	20-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-076	VA23C4435-077	VA23C4435-078	VA23C4435-079	VA23C4435-080
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		<0.050	----	<0.050	----	<0.050
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		----	0.0398	----	0.0909	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		<0.010	----	<0.010	----	<0.010
Lithium	7439-93-2	E472/VA	0.50	mg/kg		<0.50	----	<0.50	----	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg		----	<0.50	----	<0.50	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		<0.10	----	<0.10	----	<0.10
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		----	<0.10	----	<0.10	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		736	----	606	----	738
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		----	1610	----	1580	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		223	----	191	----	251
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		----	561	----	521	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		9.34	----	10.6	----	12.0
Manganese	7439-96-5	E440/VA	0.050	mg/kg		----	16.8	----	13.9	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		2.83	----	3.34	----	4.07
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		----	5.85	----	4.56	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		0.230	----	0.0296	----	0.0207
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		----	0.0298	----	0.0165	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		0.0697	----	0.0093	----	0.0070
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		----	0.0104	----	0.0054	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		----	0.990	----	0.930	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		4.08	----	3.02	----	4.03
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		----	0.345	----	0.306	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		1.24	----	0.952	----	1.37
Nickel	7440-02-0	E472/VA	0.20	mg/kg		<0.20	----	<0.20	----	<0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg		----	0.49	----	0.53	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	----	<0.040
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		----	0.170	----	0.176	----
Phosphorus	7723-14-0	E472/VA	10	mg/kg		11300	----	9430	----	11900
Phosphorus	7723-14-0	E440/VA	10	mg/kg		----	21200	----	24700	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		3420	----	2970	----	4040

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-4-RBV-8-L	CFMP-40-DM-20-C	CFMP-40-DM-20-L	CFMP-40-DM-4-C	CFMP-40-DM-4-L
					Client sampling date / time	20-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-076	VA23C4435-077	VA23C4435-078	VA23C4435-079	VA23C4435-080
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		----	7380	----	8140	----
Potassium	7440-09-7	E472/VA	20	mg/kg		8890	----	8650	----	10700
Potassium	7440-09-7	E440/VA	20	mg/kg		----	9820	----	9990	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		2690	----	2730	----	3640
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		----	3420	----	3290	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		58.2	----	42.8	----	37.2
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		----	29.9	----	25.8	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		17.6	----	13.5	----	12.7
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		----	10.4	----	8.49	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		----	0.837	----	0.949	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg		2.72	----	3.75	----	4.06
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		----	0.292	----	0.313	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		0.825	----	1.18	----	1.38
Sodium	7440-23-5	E472/VA	20	mg/kg		3250	----	3420	----	3620
Sodium	7440-23-5	E440/VA	20	mg/kg		----	4750	----	4690	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		985	----	1080	----	1240
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		----	1660	----	1540	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		----	26.3	----	26.2	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		0.24	----	0.12	----	<0.10
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		----	9.16	----	8.64	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		0.072	----	0.037	----	<0.020
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		<0.020	----	<0.020	----	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		----	<0.020	----	<0.020	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		<0.0040	----	<0.0040	----	<0.0040
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	----	<0.0040	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		0.0053	----	0.0038	----	<0.0020
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		----	0.0024	----	<0.0020	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		0.00160	----	0.00118	----	<0.00040
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		----	0.00085	----	0.00056	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		<0.10	----	<0.10	----	<0.10

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-4-RBV-8-L	CFMP-40-DM-20-C	CFMP-40-DM-20-L	CFMP-40-DM-4-C	CFMP-40-DM-4-L
					Client sampling date / time	20-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-076	VA23C4435-077	VA23C4435-078	VA23C4435-079	VA23C4435-080
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		----	0.15	----	<0.10	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		<0.020	----	<0.020	----	<0.020
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		----	0.052	----	0.022	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		<0.0020	----	<0.0020	----	<0.0020
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		----	0.0026	----	<0.0020	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		<0.00040	----	<0.00040	----	<0.00040
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		----	0.00091	----	0.00059	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		<0.10	----	<0.10	----	<0.10
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		----	0.25	----	<0.10	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		<0.020	----	<0.020	----	<0.020
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		----	0.087	----	0.026	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		----	79.5	----	98.9	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		75.4	----	65.9	----	83.7
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		----	27.7	----	32.6	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		22.8	----	20.8	----	28.5
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		<0.20	----	<0.20	----	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		----	<0.20	----	<0.20	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	----	<0.040
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		----	<0.040	----	<0.040	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-40-DM-5-C	CFMP-40-DM-5-L	CFMP-40-RBV-10-C	CFMP-40-RBV-10-L	CFMP-40-RBV-11-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-081	VA23C4435-082	VA23C4435-083	VA23C4435-084	VA23C4435-085
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		67.7	----	69.2	----	71.1
Moisture	----	E144A/VA	2.0	%		----	69.2	----	----	----
Moisture	----	E144-H/VA	2.0	%		----	----	----	68.8	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		116	----	207	----	250
Aluminum	7429-90-5	E475/VA	5.0	mg/kg		----	<5.0	----	----	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	----	<5.0	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		37.5	----	63.6	----	72.4
Aluminum	7429-90-5	E475A/VA	1.0	mg/kg wwt		----	<1.0	----	----	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	----	<1.0	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	----	0.017	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		0.016	----	0.273	----	0.044
Antimony	7440-36-0	E475/VA	0.020	mg/kg		----	<0.020	----	----	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	----	0.0052	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		0.0050	----	0.0840	----	0.0128
Antimony	7440-36-0	E475A/VA	0.0040	mg/kg wwt		----	<0.0040	----	----	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.034	----	1.53	----	0.070
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	----	1.52	----
Arsenic	7440-38-2	E475/VA	0.050	mg/kg		----	<0.050	----	----	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0108	----	0.469	----	0.0201
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	----	0.475	----
Arsenic	7440-38-2	E475A/VA	0.010	mg/kg wwt		----	<0.010	----	----	----
Barium	7440-39-3	E475/VA	0.050	mg/kg		----	0.124	----	----	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	----	0.079	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		14.1	----	16.6	----	20.0
Barium	7440-39-3	E475A/VA	0.010	mg/kg wwt		----	0.038	----	----	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	----	0.025	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		4.54	----	5.11	----	5.80
Beryllium	7440-41-7	E475/VA	0.010	mg/kg		----	<0.010	----	----	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	----	<0.010	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-40-DM-5-C	CFMP-40-DM-5-L	CFMP-40-RBV-10-C	CFMP-40-RBV-10-L	CFMP-40-RBV-11-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-081	VA23C4435-082	VA23C4435-083	VA23C4435-084	VA23C4435-085
						Result	Result	Result	Result	Result
Metals										
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	----	<0.010	----	<0.010
Beryllium	7440-41-7	E475A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	----	<0.0020	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	----	<0.0020
Bismuth	7440-69-9	E475/VA	0.010	mg/kg		----	<0.010	----	----	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	----	<0.010	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	----	<0.010	----	0.021
Bismuth	7440-69-9	E475A/VA	0.0020	mg/kg wwt		----	<0.0020	----	----	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	----	<0.0020	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		0.0031	----	0.0028	----	0.0062
Boron	7440-42-8	E475/VA	1.0	mg/kg		----	<1.0	----	----	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	----	<1.0	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		1.7	----	2.4	----	3.3
Boron	7440-42-8	E475A/VA	0.20	mg/kg wwt		----	<0.20	----	----	----
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	----	<0.20	----
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		0.55	----	0.76	----	0.95
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0545	----	0.291	----	0.184
Cadmium	7440-43-9	E475/VA	0.010	mg/kg		----	0.035	----	----	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	----	0.349	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0176	----	0.0894	----	0.0532
Cadmium	7440-43-9	E475A/VA	0.0020	mg/kg wwt		----	0.0108	----	----	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	----	0.109	----
Calcium	7440-70-2	E475/VA	20	mg/kg		----	153	----	----	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	----	144	----
Calcium	7440-70-2	E440/VA	20	mg/kg		28800	----	37000	----	34800
Calcium	7440-70-2	E475A/VA	4.0	mg/kg wwt		----	47.2	----	----	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	----	44.8	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		9310	----	11400	----	10100
Cesium	7440-46-2	E475/VA	0.0050	mg/kg		----	0.433	----	----	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	----	20.4	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-40-DM-5-C	CFMP-40-DM-5-L	CFMP-40-RBV-10-C	CFMP-40-RBV-10-L	CFMP-40-RBV-11-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-081	VA23C4435-082	VA23C4435-083	VA23C4435-084	VA23C4435-085
						Result	Result	Result	Result	Result
Metals										
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.635	----	22.5	----	1.70
Cesium	7440-46-2	E475A/VA	0.0010	mg/kg wwt		----	0.133	----	----	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	----	6.36	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.205	----	6.93	----	0.493
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.382	----	0.565	----	0.850
Chromium	7440-47-3	E475/VA	0.20	mg/kg		----	<0.20	----	----	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	----	<0.20	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.123	----	0.174	----	0.246
Chromium	7440-47-3	E475A/VA	0.040	mg/kg wwt		----	<0.040	----	----	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	----	<0.040	----
Cobalt	7440-48-4	E475/VA	0.020	mg/kg		----	0.153	----	----	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	----	0.124	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.095	----	0.217	----	0.275
Cobalt	7440-48-4	E475A/VA	0.0040	mg/kg wwt		----	0.0471	----	----	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	----	0.0385	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0306	----	0.0666	----	0.0795
Copper	7440-50-8	E440/VA	0.10	mg/kg		10.0	----	11.3	----	12.3
Copper	7440-50-8	E475/VA	0.20	mg/kg		----	18.7	----	----	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	----	18.8	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		3.23	----	3.48	----	3.56
Copper	7440-50-8	E475A/VA	0.040	mg/kg wwt		----	5.77	----	----	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	----	5.87	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		213	----	291	----	322
Iron	7439-89-6	E475/VA	5.0	mg/kg		----	404	----	----	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	----	680	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		68.7	----	89.6	----	93.0
Iron	7439-89-6	E475A/VA	1.0	mg/kg wwt		----	124	----	----	----
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	----	212	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.134	----	0.264	----	0.120
Lead	7439-92-1	E475/VA	0.050	mg/kg		----	<0.050	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-40-DM-5-C	CFMP-40-DM-5-L	CFMP-40-RBV-10-C	CFMP-40-RBV-10-L	CFMP-40-RBV-11-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-081	VA23C4435-082	VA23C4435-083	VA23C4435-084	VA23C4435-085
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	----	<0.050	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0434	----	0.0812	----	0.0348
Lead	7439-92-1	E475A/VA	0.010	mg/kg wwt		----	<0.010	----	----	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	----	<0.010	----
Lithium	7439-93-2	E475/VA	0.50	mg/kg		----	<0.50	----	----	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	----	<0.50	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	----	<0.50	----	<0.50
Lithium	7439-93-2	E475A/VA	0.10	mg/kg wwt		----	<0.10	----	----	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	----	<0.10	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	----	<0.10	----	<0.10
Magnesium	7439-95-4	E475/VA	2.0	mg/kg		----	750	----	----	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	----	824	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1490	----	1730	----	1910
Magnesium	7439-95-4	E475A/VA	0.40	mg/kg wwt		----	231	----	----	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	----	257	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		482	----	533	----	553
Manganese	7439-96-5	E475/VA	0.050	mg/kg		----	8.38	----	----	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	----	7.93	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		20.3	----	23.0	----	25.7
Manganese	7439-96-5	E475A/VA	0.010	mg/kg wwt		----	2.58	----	----	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	----	2.47	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		6.55	----	7.08	----	7.44
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	----	0.218	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0274	----	0.378	----	0.277
Mercury	7439-97-6	E512/VA	0.010	mg/kg		----	0.024	----	----	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	----	0.0681	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0088	----	0.116	----	0.0801
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt		----	0.0075	----	----	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.869	----	0.584	----	0.612
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg		----	3.55	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-40-DM-5-C	CFMP-40-DM-5-L	CFMP-40-RBV-10-C	CFMP-40-RBV-10-L	CFMP-40-RBV-11-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-081	VA23C4435-082	VA23C4435-083	VA23C4435-084	VA23C4435-085
						Result	Result	Result	Result	Result
Metals										
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	----	3.79	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.280	----	0.180	----	0.177
Molybdenum	7439-98-7	E475A/VA	0.0080	mg/kg wwt		----	1.09	----	----	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	----	1.18	----
Nickel	7440-02-0	E475/VA	0.20	mg/kg		----	<0.20	----	----	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	----	<0.20	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		1.40	----	0.90	----	4.30
Nickel	7440-02-0	E475A/VA	0.040	mg/kg wwt		----	<0.040	----	----	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	----	<0.040	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		0.450	----	0.277	----	1.24
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	----	12200	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		22200	----	30100	----	27600
Phosphorus	7723-14-0	E475/VA	20	mg/kg		----	11800	----	----	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	----	3790	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		7160	----	9260	----	7970
Phosphorus	7723-14-0	E475A/VA	4.0	mg/kg wwt		----	3650	----	----	----
Potassium	7440-09-7	E475/VA	20	mg/kg		----	11300	----	----	----
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	----	10200	----
Potassium	7440-09-7	E440/VA	20	mg/kg		9180	----	12600	----	11400
Potassium	7440-09-7	E475A/VA	4.0	mg/kg wwt		----	3470	----	----	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	----	3170	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		2960	----	3880	----	3310
Rubidium	7440-17-7	E475/VA	0.050	mg/kg		----	46.6	----	----	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	----	249	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		32.5	----	278	----	35.5
Rubidium	7440-17-7	E475A/VA	0.010	mg/kg wwt		----	14.4	----	----	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	----	77.6	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		10.5	----	85.4	----	10.2
Selenium	7782-49-2	E440/VA	0.050	mg/kg		1.20	----	1.19	----	1.04
Selenium	7782-49-2	E475/VA	0.10	mg/kg		----	4.06	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-40-DM-5-C	CFMP-40-DM-5-L	CFMP-40-RBV-10-C	CFMP-40-RBV-10-L	CFMP-40-RBV-11-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-081	VA23C4435-082	VA23C4435-083	VA23C4435-084	VA23C4435-085
						Result	Result	Result	Result	Result
Metals										
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	----	2.50	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.387	----	0.365	----	0.302
Selenium	7782-49-2	E475A/VA	0.020	mg/kg wwt		----	1.25	----	----	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	----	0.779	----
Sodium	7440-23-5	E475/VA	20	mg/kg		----	3850	----	----	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	----	3770	----
Sodium	7440-23-5	E440/VA	20	mg/kg		4180	----	5390	----	4930
Sodium	7440-23-5	E475A/VA	4.0	mg/kg wwt		----	1180	----	----	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	----	1170	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		1350	----	1660	----	1420
Strontium	7440-24-6	E440/VA	0.050	mg/kg		24.9	----	40.6	----	41.4
Strontium	7440-24-6	E475/VA	0.10	mg/kg		----	<0.10	----	----	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	----	0.19	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		8.04	----	12.5	----	12.0
Strontium	7440-24-6	E475A/VA	0.020	mg/kg wwt		----	0.029	----	----	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	----	0.059	----
Tellurium	13494-80-9	E475/VA	0.020	mg/kg		----	<0.020	----	----	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	----	<0.020	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	----	<0.020	----	<0.020
Tellurium	13494-80-9	E475A/VA	0.0040	mg/kg wwt		----	<0.0040	----	----	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	----	<0.0040	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	----	<0.0040	----	<0.0040
Thallium	7440-28-0	E475/VA	0.0020	mg/kg		----	<0.0020	----	----	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	----	0.0132	----
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0029	----	0.0430	----	0.0045
Thallium	7440-28-0	E475A/VA	0.00040	mg/kg wwt		----	<0.00040	----	----	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	----	----	0.00411	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00094	----	0.0132	----	0.00129
Tin	7440-31-5	E475/VA	0.10	mg/kg		----	<0.10	----	----	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	----	<0.10	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-40-DM-5-C	CFMP-40-DM-5-L	CFMP-40-RBV-10-C	CFMP-40-RBV-10-L	CFMP-40-RBV-11-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00
						VA23C4435-081	VA23C4435-082	VA23C4435-083	VA23C4435-084	VA23C4435-085
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.12	----	0.15	----	<0.10
Tin	7440-31-5	E475A/VA	0.020	mg/kg wwt		----	<0.020	----	----	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	----	<0.020	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.037	----	0.046	----	0.027
Uranium	7440-61-1	E475/VA	0.0020	mg/kg		----	<0.0020	----	----	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	----	<0.0020	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0036	----	0.0027	----	0.0024
Uranium	7440-61-1	E475A/VA	0.00040	mg/kg wwt		----	<0.00040	----	----	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	----	<0.00040	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.00118	----	0.00084	----	0.00070
Vanadium	7440-62-2	E475/VA	0.10	mg/kg		----	<0.10	----	----	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	----	<0.10	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		<0.10	----	0.10	----	0.12
Vanadium	7440-62-2	E475A/VA	0.020	mg/kg wwt		----	<0.020	----	----	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	----	<0.020	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.022	----	0.031	----	0.035
Zinc	7440-66-6	E440/VA	0.50	mg/kg		101	----	111	----	103
Zinc	7440-66-6	E475/VA	1.0	mg/kg		----	74.6	----	----	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	----	71.5	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		32.5	----	34.1	----	29.9
Zinc	7440-66-6	E475A/VA	0.20	mg/kg wwt		----	23.0	----	----	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	----	22.3	----
Zirconium	7440-67-7	E475/VA	0.20	mg/kg		----	<0.20	----	----	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	----	<0.20	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	----	<0.20	----	<0.20
Zirconium	7440-67-7	E475A/VA	0.040	mg/kg wwt		----	<0.040	----	----	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	----	<0.040	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	----	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-40-RBV-11-L	CFMP-40-RBV-8-C	CFMP-40-RBV-8-L	CFMP-6-DM-1-C	CFMP-6-DM-1-L
					Client sampling date / time	24-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-086	VA23C4435-087	VA23C4435-088	VA23C4435-089	VA23C4435-090
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		----	69.4	----	66.0	----
Moisture	----	E144-H/VA	2.0	%		68.5	----	68.9	----	68.5
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		----	211	----	162	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		<5.0	----	<5.0	----	<5.0
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		----	64.6	----	55.2	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		1.1	----	<1.0	----	<1.0
Antimony	7440-36-0	E472/VA	0.010	mg/kg		<0.010	----	0.016	----	0.028
Antimony	7440-36-0	E440/VA	0.010	mg/kg		----	0.260	----	0.134	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		0.0026	----	0.0049	----	0.0089
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		----	0.0794	----	0.0454	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		----	0.064	----	0.042	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		0.046	----	0.060	----	0.078
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		----	0.0196	----	0.0144	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		0.0145	----	0.0187	----	0.0246
Barium	7440-39-3	E472/VA	0.050	mg/kg		0.053	----	0.051	----	<0.050
Barium	7440-39-3	E440/VA	0.050	mg/kg		----	11.4	----	8.88	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		0.017	----	0.016	----	<0.010
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		----	3.49	----	3.02	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		<0.010	----	<0.010	----	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		----	<0.010	----	<0.010	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	----	<0.0020
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	----	<0.0020	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		0.010	----	0.013	----	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		----	0.020	----	0.031	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		0.0033	----	0.0040	----	<0.0020
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		----	0.0060	----	0.0107	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		<1.0	----	<1.0	----	<1.0
Boron	7440-42-8	E440/VA	1.0	mg/kg		----	4.8	----	3.6	----
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		0.31	----	0.21	----	<0.20

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-40-RBV-11-L	CFMP-40-RBV-8-C	CFMP-40-RBV-8-L	CFMP-6-DM-1-C	CFMP-6-DM-1-L
					Client sampling date / time	24-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-086	VA23C4435-087	VA23C4435-088	VA23C4435-089	VA23C4435-090
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		----	1.46	----	1.22	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		----	0.376	----	0.122	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		0.459	----	0.242	----	0.211
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		----	0.115	----	0.0413	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		0.144	----	0.0755	----	0.0665
Calcium	7440-70-2	E472/VA	20	mg/kg		129	----	186	----	178
Calcium	7440-70-2	E440/VA	20	mg/kg		----	27400	----	27700	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		40.7	----	57.9	----	56.1
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		----	8380	----	9420	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		1.96	----	1.49	----	1.36
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		----	1.32	----	1.60	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		0.617	----	0.465	----	0.428
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		----	0.402	----	0.545	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		----	0.630	----	0.526	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		<0.20	----	<0.20	----	<0.20
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		----	0.192	----	0.179	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		0.060	----	<0.040	----	<0.040
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		0.110	----	0.127	----	0.134
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		----	0.262	----	0.108	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		0.0346	----	0.0396	----	0.0424
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		----	0.0799	----	0.0369	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		----	48.5	----	11.3	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		17.0	----	23.3	----	16.6
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		----	14.8	----	3.85	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		5.35	----	7.25	----	5.24
Iron	7439-89-6	E440/VA	3.0	mg/kg		----	488	----	233	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		1140	----	599	----	406
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		----	149	----	79.1	----
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		360	----	186	----	128
Lead	7439-92-1	E440/VA	0.020	mg/kg		----	0.166	----	0.304	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-40-RBV-11-L	CFMP-40-RBV-8-C	CFMP-40-RBV-8-L	CFMP-6-DM-1-C	CFMP-6-DM-1-L
					Client sampling date / time	24-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-086	VA23C4435-087	VA23C4435-088	VA23C4435-089	VA23C4435-090
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		<0.050	----	<0.050	----	<0.050
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		----	0.0508	----	0.103	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		<0.010	----	<0.010	----	<0.010
Lithium	7439-93-2	E472/VA	0.50	mg/kg		<0.50	----	<0.50	----	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg		----	<0.50	----	<0.50	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		<0.10	----	<0.10	----	<0.10
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		----	<0.10	----	<0.10	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		838	----	887	----	698
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		----	1660	----	1360	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		264	----	276	----	220
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		----	507	----	463	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		8.36	----	10.7	----	7.27
Manganese	7439-96-5	E440/VA	0.050	mg/kg		----	19.1	----	33.7	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		2.63	----	3.34	----	2.29
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		----	5.83	----	11.5	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		0.673	----	0.259	----	0.0561
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		----	0.200	----	0.0628	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		0.212	----	0.0806	----	0.0177
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		----	0.0611	----	0.0213	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		----	0.549	----	0.784	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		4.52	----	3.94	----	4.35
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		----	0.168	----	0.266	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		1.42	----	1.22	----	1.37
Nickel	7440-02-0	E472/VA	0.20	mg/kg		<0.20	----	0.43	----	<0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg		----	7.37	----	1.03	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		<0.040	----	0.133	----	<0.040
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		----	2.25	----	0.349	----
Phosphorus	7723-14-0	E472/VA	10	mg/kg		11900	----	12000	----	12600
Phosphorus	7723-14-0	E440/VA	10	mg/kg		----	22300	----	21200	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		3740	----	3730	----	3960

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-40-RBV-11-L	CFMP-40-RBV-8-C	CFMP-40-RBV-8-L	CFMP-6-DM-1-C	CFMP-6-DM-1-L
					Client sampling date / time	24-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-086	VA23C4435-087	VA23C4435-088	VA23C4435-089	VA23C4435-090
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		----	6800	----	7200	----
Potassium	7440-09-7	E472/VA	20	mg/kg		9790	----	8700	----	10700
Potassium	7440-09-7	E440/VA	20	mg/kg		----	10300	----	9570	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		3080	----	2710	----	3360
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		----	3160	----	3250	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		45.0	----	38.7	----	120
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		----	33.4	----	80.0	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		14.2	----	12.0	----	38.0
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		----	10.2	----	27.2	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		----	0.820	----	0.797	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg		3.01	----	2.62	----	3.39
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		----	0.250	----	0.271	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		0.947	----	0.815	----	1.07
Sodium	7440-23-5	E472/VA	20	mg/kg		4090	----	3710	----	3880
Sodium	7440-23-5	E440/VA	20	mg/kg		----	5140	----	4460	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		1290	----	1160	----	1220
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		----	1570	----	1520	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		----	30.4	----	20.6	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		0.15	----	0.18	----	0.11
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		----	9.29	----	7.00	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		0.047	----	0.057	----	0.035
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		<0.020	----	<0.020	----	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		----	<0.020	----	<0.020	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		<0.0040	----	<0.0040	----	<0.0040
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	----	<0.0040	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		<0.0020	----	<0.0020	----	0.0152
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		----	0.0050	----	0.0209	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		<0.00040	----	<0.00040	----	0.00478
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		----	0.00153	----	0.00709	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		<0.10	----	<0.10	----	<0.10

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-40-RBV-11-L	CFMP-40-RBV-8-C	CFMP-40-RBV-8-L	CFMP-6-DM-1-C	CFMP-6-DM-1-L
					Client sampling date / time	24-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-086	VA23C4435-087	VA23C4435-088	VA23C4435-089	VA23C4435-090
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		----	0.25	----	0.11	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		<0.020	----	<0.020	----	<0.020
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		----	0.078	----	0.039	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		<0.0020	----	<0.0020	----	<0.0020
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		----	0.0059	----	0.0507	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		<0.00040	----	<0.00040	----	<0.00040
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		----	0.00179	----	0.0172	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		<0.10	----	<0.10	----	<0.10
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		----	<0.10	----	0.14	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		<0.020	----	<0.020	----	<0.020
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		----	0.029	----	0.048	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		----	135	----	96.0	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		88.4	----	87.9	----	76.2
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		----	41.2	----	32.6	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		27.8	----	27.4	----	24.0
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		<0.20	----	<0.20	----	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		----	0.23	----	<0.20	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	----	<0.040
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		----	0.069	----	<0.040	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-6-DM-2-C	CFMP-6-DM-2-L	CFMP-6-DM-2a-C	CFMP-6-DM-2a-L	CFMP-6-DM-3-C
					Client sampling date / time	20-Sep-2023 00:00	20-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-091	VA23C4435-092	VA23C4435-093	VA23C4435-094	VA23C4435-095
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		70.2	----	70.5	----	65.4
Moisture	----	E144-H/VA	2.0	%		----	69.6	----	69.6	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		228	----	131	----	52.2
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	<5.0	----	<5.0	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		67.8	----	38.8	----	18.0
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	<1.0	----	<1.0	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	<0.010	----	0.014	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		0.267	----	0.182	----	0.060
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	0.0027	----	0.0044	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		0.0796	----	0.0536	----	0.0210
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.165	----	0.128	----	0.073
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	<0.030	----	0.051	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0492	----	0.0378	----	0.0254
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	0.0081	----	0.0156	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	<0.050	----	<0.050	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		12.4	----	15.2	----	8.79
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	<0.010	----	0.014	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		3.68	----	4.49	----	3.04
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	<0.010	----	<0.010	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	----	<0.010	----	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	<0.0020	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	0.0021	----	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	<0.010	----	<0.010	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		0.044	----	<0.010	----	<0.010
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	<0.0020	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		0.0132	----	0.0020	----	<0.0020
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	<1.0	----	<1.0	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		1.7	----	2.0	----	2.2
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	<0.20	----	<0.20	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-6-DM-2-C	CFMP-6-DM-2-L	CFMP-6-DM-2a-C	CFMP-6-DM-2a-L	CFMP-6-DM-3-C
					Client sampling date / time	20-Sep-2023 00:00	20-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-091	VA23C4435-092	VA23C4435-093	VA23C4435-094	VA23C4435-095
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		0.50	----	0.59	----	0.76
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0829	----	0.117	----	0.0341
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	0.075	----	0.137	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0247	----	0.0344	----	0.0118
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	0.0228	----	0.0417	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	133	----	161	----
Calcium	7440-70-2	E440/VA	20	mg/kg		40000	----	31300	----	33000
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	40.4	----	49.1	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		11900	----	9220	----	11400
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	1.49	----	1.37	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		1.48	----	1.26	----	2.34
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	0.453	----	0.416	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.440	----	0.370	----	0.808
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.716	----	0.514	----	0.191
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	<0.20	----	<0.20	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.213	----	0.152	----	0.066
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	<0.040	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	0.150	----	0.133	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.097	----	0.094	----	0.056
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	0.0456	----	0.0404	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0288	----	0.0277	----	0.0196
Copper	7440-50-8	E440/VA	0.10	mg/kg		15.9	----	14.6	----	10.2
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	23.6	----	27.2	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		4.74	----	4.32	----	3.51
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	7.19	----	8.29	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		372	----	285	----	221
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	480	----	410	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		111	----	84.0	----	76.6
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	146	----	125	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.287	----	0.125	----	0.131

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-6-DM-2-C	CFMP-6-DM-2-L	CFMP-6-DM-2a-C	CFMP-6-DM-2a-L	CFMP-6-DM-3-C
					Client sampling date / time	20-Sep-2023 00:00	20-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-091	VA23C4435-092	VA23C4435-093	VA23C4435-094	VA23C4435-095
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	<0.050	----	<0.050	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0854	----	0.0369	----	0.0454
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	<0.010	----	<0.010	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	<0.50	----	<0.50	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	----	<0.50	----	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	<0.10	----	<0.10	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	----	<0.10	----	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	692	----	837	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1540	----	1520	----	1360
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	211	----	255	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		459	----	448	----	471
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	7.65	----	11.4	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		27.2	----	33.8	----	12.5
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	2.33	----	3.47	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		8.09	----	9.96	----	4.32
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	0.0883	----	0.0411	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0743	----	0.0514	----	0.0167
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	0.0269	----	0.0125	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0221	----	0.0151	----	0.0058
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.723	----	0.868	----	0.689
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	4.81	----	4.96	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.215	----	0.256	----	0.238
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	1.46	----	1.51	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	<0.20	----	<0.20	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		0.49	----	0.41	----	0.26
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	<0.040	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		0.146	----	0.122	----	0.090
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	11600	----	11500	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		29400	----	25600	----	24600
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	3550	----	3490	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-6-DM-2-C	CFMP-6-DM-2-L	CFMP-6-DM-2a-C	CFMP-6-DM-2a-L	CFMP-6-DM-3-C
					Client sampling date / time	20-Sep-2023 00:00	20-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-091	VA23C4435-092	VA23C4435-093	VA23C4435-094	VA23C4435-095
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		8760	----	7550	----	8540
Potassium	7440-09-7	E472/VA	20	mg/kg		----	8660	----	9810	----
Potassium	7440-09-7	E440/VA	20	mg/kg		11200	----	12000	----	9400
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	2640	----	2990	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3330	----	3520	----	3260
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	84.7	----	88.4	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		92.6	----	83.9	----	92.0
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	25.8	----	26.9	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		27.6	----	24.7	----	31.8
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.618	----	0.804	----	0.493
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	1.61	----	2.41	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.184	----	0.237	----	0.171
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	0.490	----	0.733	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	3440	----	3900	----
Sodium	7440-23-5	E440/VA	20	mg/kg		4770	----	5010	----	4260
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	1050	----	1190	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		1420	----	1480	----	1480
Strontium	7440-24-6	E440/VA	0.050	mg/kg		40.0	----	35.4	----	20.9
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	0.11	----	0.20	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		11.9	----	10.4	----	7.23
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	0.034	----	0.062	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	<0.020	----	<0.020	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	----	<0.020	----	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	<0.0040	----	<0.0040	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	----	<0.0040	----	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	0.0254	----	0.0272	----
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0251	----	0.0259	----	0.0363
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	0.00772	----	0.00828	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00748	----	0.00764	----	0.0126
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	<0.10	----	<0.10	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-6-DM-2-C	CFMP-6-DM-2-L	CFMP-6-DM-2a-C	CFMP-6-DM-2a-L	CFMP-6-DM-3-C
					Client sampling date / time	20-Sep-2023 00:00	20-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-091	VA23C4435-092	VA23C4435-093	VA23C4435-094	VA23C4435-095
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.26	----	0.14	----	<0.10
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	<0.020	----	<0.020	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.077	----	0.040	----	<0.020
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	<0.0020	----	<0.0020	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0903	----	0.198	----	0.0312
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	<0.00040	----	0.00055	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.0269	----	0.0582	----	0.0108
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	<0.10	----	<0.10	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		0.32	----	0.33	----	<0.10
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	<0.020	----	<0.020	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.096	----	0.098	----	0.030
Zinc	7440-66-6	E440/VA	0.50	mg/kg		112	----	124	----	100
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	76.0	----	88.9	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		33.5	----	36.7	----	34.6
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	23.1	----	27.0	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	<0.20	----	<0.20	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	----	<0.20	----	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	<0.040	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		0.057	----	<0.040	----	<0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-6-DM-3-L	CFMP-6-DM-8-C	CFMP-6-DM-8-L	CFMP-6-DM-9-C	CFMP-6-DM-9-L
					Client sampling date / time	22-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-096	VA23C4435-097	VA23C4435-098	VA23C4435-099	VA23C4435-100
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		----	68.6	----	67.6	----
Moisture	----	E144-H/VA	2.0	%		67.9	----	67.6	----	66.4
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		----	150	----	76.1	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		<5.0	----	<5.0	----	<5.0
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		----	47.1	----	24.6	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		<1.0	----	1.0	----	<1.0
Antimony	7440-36-0	E472/VA	0.010	mg/kg		<0.010	----	<0.010	----	<0.010
Antimony	7440-36-0	E440/VA	0.010	mg/kg		----	0.129	----	0.078	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		0.0030	----	0.0032	----	<0.0020
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		----	0.0406	----	0.0254	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		----	0.073	----	0.303	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		<0.030	----	0.038	----	<0.030
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		----	0.0231	----	0.0979	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		0.0071	----	0.0123	----	0.0082
Barium	7440-39-3	E472/VA	0.050	mg/kg		<0.050	----	<0.050	----	<0.050
Barium	7440-39-3	E440/VA	0.050	mg/kg		----	14.6	----	10.8	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		<0.010	----	<0.010	----	<0.010
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		----	4.59	----	3.49	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		<0.010	----	<0.010	----	<0.010
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		----	<0.010	----	<0.010	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	----	<0.0020
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	----	<0.0020	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		<0.010	----	<0.010	----	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		----	0.015	----	<0.010	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		<0.0020	----	<0.0020	----	<0.0020
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		----	0.0046	----	<0.0020	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		<1.0	----	<1.0	----	<1.0
Boron	7440-42-8	E440/VA	1.0	mg/kg		----	1.7	----	1.6	----
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		<0.20	----	<0.20	----	<0.20

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-6-DM-3-L	CFMP-6-DM-8-C	CFMP-6-DM-8-L	CFMP-6-DM-9-C	CFMP-6-DM-9-L
					Client sampling date / time	22-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-096	VA23C4435-097	VA23C4435-098	VA23C4435-099	VA23C4435-100
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		----	0.54	----	0.51	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		----	0.147	----	0.0310	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		0.142	----	0.260	----	0.072
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		----	0.0462	----	0.0100	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		0.0455	----	0.0844	----	0.0243
Calcium	7440-70-2	E472/VA	20	mg/kg		167	----	178	----	171
Calcium	7440-70-2	E440/VA	20	mg/kg		----	33000	----	30000	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		53.6	----	57.7	----	57.3
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		----	10400	----	9700	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		1.64	----	0.761	----	1.36
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		----	1.02	----	1.88	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		0.526	----	0.247	----	0.456
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		----	0.320	----	0.607	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		----	0.545	----	0.365	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		0.20	----	<0.20	----	<0.20
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		----	0.171	----	0.118	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		0.065	----	<0.040	----	<0.040
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		0.144	----	0.180	----	0.160
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		----	0.076	----	0.087	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		0.0461	----	0.0585	----	0.0537
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		----	0.0240	----	0.0281	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		----	17.7	----	17.7	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		17.9	----	20.8	----	19.3
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		----	5.57	----	5.73	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		5.74	----	6.73	----	6.48
Iron	7439-89-6	E440/VA	3.0	mg/kg		----	321	----	249	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		344	----	487	----	294
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		----	101	----	80.6	----
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		110	----	158	----	98.8
Lead	7439-92-1	E440/VA	0.020	mg/kg		----	0.195	----	0.118	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-6-DM-3-L	CFMP-6-DM-8-C	CFMP-6-DM-8-L	CFMP-6-DM-9-C	CFMP-6-DM-9-L
					Client sampling date / time	22-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-096	VA23C4435-097	VA23C4435-098	VA23C4435-099	VA23C4435-100
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		<0.050	----	<0.050	----	<0.050
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		----	0.0614	----	0.0383	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		<0.010	----	<0.010	----	<0.010
Lithium	7439-93-2	E472/VA	0.50	mg/kg		<0.50	----	<0.50	----	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg		----	<0.50	----	<0.50	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		<0.10	----	<0.10	----	<0.10
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		----	<0.10	----	<0.10	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		764	----	675	----	865
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		----	1300	----	1320	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		245	----	219	----	290
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		----	410	----	429	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		6.34	----	13.1	----	7.82
Manganese	7439-96-5	E440/VA	0.050	mg/kg		----	20.1	----	10.2	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		2.03	----	4.25	----	2.62
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		----	6.32	----	3.31	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		0.0172	----	0.0464	----	0.0189
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		----	0.0614	----	0.0248	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		0.0055	----	0.0150	----	0.0063
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		----	0.0193	----	0.0080	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		----	0.803	----	0.665	----
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		4.69	----	4.86	----	5.29
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		----	0.253	----	0.215	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		1.51	----	1.58	----	1.78
Nickel	7440-02-0	E472/VA	0.20	mg/kg		<0.20	----	<0.20	----	<0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg		----	0.66	----	0.69	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	----	<0.040
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		----	0.208	----	0.222	----
Phosphorus	7723-14-0	E472/VA	10	mg/kg		13900	----	12400	----	14500
Phosphorus	7723-14-0	E440/VA	10	mg/kg		----	24500	----	24000	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		4460	----	4000	----	4880

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-6-DM-3-L	CFMP-6-DM-8-C	CFMP-6-DM-8-L	CFMP-6-DM-9-C	CFMP-6-DM-9-L
					Client sampling date / time	22-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-096	VA23C4435-097	VA23C4435-098	VA23C4435-099	VA23C4435-100
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		----	7690	----	7760	----
Potassium	7440-09-7	E472/VA	20	mg/kg		10900	----	9840	----	11000
Potassium	7440-09-7	E440/VA	20	mg/kg		----	9680	----	10800	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		3490	----	3190	----	3680
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		----	3040	----	3510	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		134	----	98.6	----	109
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		----	80.6	----	83.4	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		43.2	----	31.9	----	36.6
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		----	25.3	----	27.0	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		----	0.781	----	0.650	----
Selenium	7782-49-2	E472/VA	0.10	mg/kg		1.35	----	2.10	----	1.36
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		----	0.246	----	0.210	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		0.433	----	0.682	----	0.456
Sodium	7440-23-5	E472/VA	20	mg/kg		3490	----	3760	----	3980
Sodium	7440-23-5	E440/VA	20	mg/kg		----	4540	----	4690	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		1120	----	1220	----	1340
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		----	1430	----	1520	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		----	22.2	----	25.1	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		<0.10	----	0.15	----	<0.10
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		----	6.97	----	8.11	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		0.030	----	0.049	----	0.027
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		<0.020	----	<0.020	----	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		----	<0.020	----	<0.020	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		<0.0040	----	<0.0040	----	<0.0040
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	----	<0.0040	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		0.0292	----	0.0158	----	0.0101
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		----	0.0192	----	0.0144	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		0.00938	----	0.00511	----	0.00340
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		----	0.00604	----	0.00464	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		<0.10	----	<0.10	----	<0.10

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-6-DM-3-L	CFMP-6-DM-8-C	CFMP-6-DM-8-L	CFMP-6-DM-9-C	CFMP-6-DM-9-L
					Client sampling date / time	22-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-096	VA23C4435-097	VA23C4435-098	VA23C4435-099	VA23C4435-100
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		----	0.21	----	<0.10	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		<0.020	----	<0.020	----	<0.020
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		----	0.067	----	0.022	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		<0.0020	----	<0.0020	----	<0.0020
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		----	0.0954	----	0.0047	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		<0.00040	----	<0.00040	----	<0.00040
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		----	0.0300	----	0.00151	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		<0.10	----	<0.10	----	<0.10
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		----	0.20	----	<0.10	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		<0.020	----	<0.020	----	<0.020
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		----	0.062	----	<0.020	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		----	127	----	105	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		79.3	----	84.5	----	90.8
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		----	40.0	----	33.8	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		25.5	----	27.4	----	30.5
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		<0.20	----	<0.20	----	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		----	<0.20	----	<0.20	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		<0.040	----	<0.040	----	<0.040
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		----	0.046	----	<0.040	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-6-RBV-11-C	CFMP-6-RBV-11-L	CFMP-6-RBV-4-C	CFMP-6-RBV-4-L	CFMP-6-RBV-5-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-101	VA23C4435-102	VA23C4435-103	VA23C4435-104	VA23C4435-105
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		75.4	----	73.2	----	68.6
Moisture	----	E144-H/VA	2.0	%		----	71.2	----	69.4	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		191	----	158	----	107
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	<5.0	----	<5.0	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		46.8	----	42.4	----	33.4
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	<1.0	----	<1.0	----
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	0.011	----	<0.010	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		0.095	----	0.090	----	0.264
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	0.0032	----	<0.0020	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		0.0234	----	0.0240	----	0.0829
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		5.33	----	0.130	----	0.068
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	5.50	----	0.074	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		1.31	----	0.0350	----	0.0214
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	1.58	----	0.0225	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	0.059	----	<0.050	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		11.7	----	28.0	----	12.4
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	0.017	----	0.012	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		2.88	----	7.49	----	3.89
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	<0.010	----	<0.010	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	----	<0.010	----	<0.010
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	<0.0020	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	----	0.0024	----	<0.0020
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	<0.010	----	<0.010	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		0.011	----	0.021	----	0.024
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	<0.0020	----	<0.0020	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		0.0027	----	0.0056	----	0.0077
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	<1.0	----	<1.0	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		<1.0	----	3.6	----	2.1
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	<0.20	----	<0.20	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-6-RBV-11-C	CFMP-6-RBV-11-L	CFMP-6-RBV-4-C	CFMP-6-RBV-4-L	CFMP-6-RBV-5-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-101	VA23C4435-102	VA23C4435-103	VA23C4435-104	VA23C4435-105
						Result	Result	Result	Result	Result
Metals										
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		0.22	----	0.96	----	0.67
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		1.15	----	1.46	----	2.47
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	0.446	----	5.80	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.283	----	0.392	----	0.775
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	0.129	----	1.77	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	195	----	191	----
Calcium	7440-70-2	E440/VA	20	mg/kg		27400	----	32600	----	30200
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	56.2	----	58.3	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		6740	----	8730	----	9460
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	33.2	----	11.3	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		30.8	----	11.5	----	10.8
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	9.58	----	3.44	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		7.58	----	3.08	----	3.37
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.745	----	0.666	----	0.475
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	<0.20	----	<0.20	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.183	----	0.178	----	0.149
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	<0.040	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	0.090	----	0.103	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.202	----	0.248	----	0.200
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	0.0258	----	0.0316	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0496	----	0.0665	----	0.0626
Copper	7440-50-8	E440/VA	0.10	mg/kg		13.2	----	16.5	----	10.6
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	18.5	----	18.2	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		3.24	----	4.41	----	3.32
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	5.34	----	5.56	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		301	----	377	----	372
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	224	----	686	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		74.0	----	101	----	117
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	64.6	----	210	----
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.292	----	0.612	----	0.365

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-6-RBV-11-C	CFMP-6-RBV-11-L	CFMP-6-RBV-4-C	CFMP-6-RBV-4-L	CFMP-6-RBV-5-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-101	VA23C4435-102	VA23C4435-103	VA23C4435-104	VA23C4435-105
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	<0.050	----	<0.050	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0717	----	0.164	----	0.114
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	<0.010	----	<0.010	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	<0.50	----	<0.50	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	----	<0.50	----	<0.50
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	<0.10	----	<0.10	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		0.11	----	<0.10	----	<0.10
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	994	----	748	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1510	----	1720	----	1480
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	287	----	229	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		371	----	459	----	462
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	18.4	----	9.61	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		29.3	----	30.8	----	28.0
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	5.30	----	2.94	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		7.20	----	8.25	----	8.77
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	0.283	----	0.607	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.251	----	0.354	----	0.444
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	0.0816	----	0.185	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0616	----	0.0949	----	0.139
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.352	----	0.800	----	0.700
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	3.05	----	5.05	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.0864	----	0.214	----	0.220
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	0.880	----	1.54	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	<0.20	----	<0.20	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		0.99	----	0.85	----	0.95
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	<0.040	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		0.244	----	0.227	----	0.299
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	15200	----	12400	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		26300	----	27100	----	25900
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	4380	----	3800	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-6-RBV-11-C	CFMP-6-RBV-11-L	CFMP-6-RBV-4-C	CFMP-6-RBV-4-L	CFMP-6-RBV-5-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-101	VA23C4435-102	VA23C4435-103	VA23C4435-104	VA23C4435-105
						Result	Result	Result	Result	Result
Metals										
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		6460	----	7270	----	8120
Potassium	7440-09-7	E472/VA	20	mg/kg		----	11000	----	9480	----
Potassium	7440-09-7	E440/VA	20	mg/kg		13400	----	11600	----	10600
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	3170	----	2900	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3290	----	3100	----	3320
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	371	----	239	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		323	----	221	----	358
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	107	----	73.0	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		79.4	----	59.2	----	112
Selenium	7782-49-2	E440/VA	0.050	mg/kg		1.76	----	0.752	----	0.679
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	3.81	----	1.70	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.433	----	0.201	----	0.213
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	1.10	----	0.521	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	3690	----	3640	----
Sodium	7440-23-5	E440/VA	20	mg/kg		5340	----	5330	----	4940
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	1060	----	1110	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		1310	----	1430	----	1550
Strontium	7440-24-6	E440/VA	0.050	mg/kg		59.7	----	75.4	----	48.4
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	0.32	----	0.20	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		14.7	----	20.2	----	15.2
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	0.091	----	0.061	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	<0.020	----	<0.020	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	----	<0.020	----	<0.020
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	<0.0040	----	<0.0040	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	----	<0.0040	----	<0.0040
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	0.0345	----	0.0406	----
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0469	----	0.0405	----	0.0262
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	0.00994	----	0.0124	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.0115	----	0.0108	----	0.00822
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	<0.10	----	<0.10	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-6-RBV-11-C	CFMP-6-RBV-11-L	CFMP-6-RBV-4-C	CFMP-6-RBV-4-L	CFMP-6-RBV-5-C
					Client sampling date / time	22-Sep-2023 00:00	22-Sep-2023 00:00	21-Sep-2023 00:00	21-Sep-2023 00:00	22-Sep-2023 00:00
						VA23C4435-101	VA23C4435-102	VA23C4435-103	VA23C4435-104	VA23C4435-105
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.23	----	0.12	----	0.22
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	<0.020	----	<0.020	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.057	----	0.032	----	0.069
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	<0.0020	----	<0.0020	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.0516	----	0.274	----	0.0052
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	<0.00040	----	<0.00040	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.0127	----	0.0732	----	0.00162
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	<0.10	----	<0.10	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		0.15	----	0.40	----	<0.10
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	<0.020	----	<0.020	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.038	----	0.106	----	0.026
Zinc	7440-66-6	E440/VA	0.50	mg/kg		102	----	114	----	100
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	86.2	----	84.7	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		25.0	----	30.6	----	31.5
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	24.9	----	25.9	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	<0.20	----	<0.20	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	----	0.21	----	<0.20
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	<0.040	----	<0.040	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		<0.040	----	0.057	----	0.040

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-6-RBV-5-L	CFMP-6-RBV-5a-C	CFMP-6-RBV-5a-L	CFMP-6-RBV-7-C	CFMP-6-RBV-7-L
					Client sampling date / time	22-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-106	VA23C4435-107	VA23C4435-108	VA23C4435-109	VA23C4435-110
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.50	%		----	70.5	----	70.5	----
Moisture	----	E144A/VA	2.0	%		66.0	----	----	----	----
Moisture	----	E144-H/VA	2.0	%		----	----	70.0	----	66.8
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		----	64.9	----	229	----
Aluminum	7429-90-5	E475/VA	5.0	mg/kg		<5.0	----	----	----	----
Aluminum	7429-90-5	E472/VA	5.0	mg/kg		----	----	28.3	----	<5.0
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		----	19.1	----	67.6	----
Aluminum	7429-90-5	E475A/VA	1.0	mg/kg wwt		1.7	----	----	----	----
Aluminum	7429-90-5	E472A/VA	1.0	mg/kg wwt		----	----	8.5	----	<1.0
Antimony	7440-36-0	E472/VA	0.010	mg/kg		----	----	0.022	----	0.011
Antimony	7440-36-0	E440/VA	0.010	mg/kg		----	0.104	----	0.087	----
Antimony	7440-36-0	E475/VA	0.020	mg/kg		<0.020	----	----	----	----
Antimony	7440-36-0	E472A/VA	0.0020	mg/kg wwt		----	----	0.0064	----	0.0038
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		----	0.0308	----	0.0258	----
Antimony	7440-36-0	E475A/VA	0.0040	mg/kg wwt		0.0052	----	----	----	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		----	1.33	----	0.257	----
Arsenic	7440-38-2	E472/VA	0.030	mg/kg		----	----	0.073	----	0.388
Arsenic	7440-38-2	E475/VA	0.050	mg/kg		<0.050	----	----	----	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		----	0.393	----	0.0759	----
Arsenic	7440-38-2	E472A/VA	0.0060	mg/kg wwt		----	----	0.0219	----	0.129
Arsenic	7440-38-2	E475A/VA	0.010	mg/kg wwt		<0.010	----	----	----	----
Barium	7440-39-3	E475/VA	0.050	mg/kg		0.080	----	----	----	----
Barium	7440-39-3	E472/VA	0.050	mg/kg		----	----	0.638	----	<0.050
Barium	7440-39-3	E440/VA	0.050	mg/kg		----	14.2	----	16.6	----
Barium	7440-39-3	E475A/VA	0.010	mg/kg wwt		0.027	----	----	----	----
Barium	7440-39-3	E472A/VA	0.010	mg/kg wwt		----	----	0.191	----	0.016
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		----	4.19	----	4.89	----
Beryllium	7440-41-7	E475/VA	0.010	mg/kg		<0.010	----	----	----	----
Beryllium	7440-41-7	E472/VA	0.010	mg/kg		----	----	<0.010	----	<0.010

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-6-RBV-5-L	CFMP-6-RBV-5a-C	CFMP-6-RBV-5a-L	CFMP-6-RBV-7-C	CFMP-6-RBV-7-L
					Client sampling date / time	22-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-106	VA23C4435-107	VA23C4435-108	VA23C4435-109	VA23C4435-110
						Result	Result	Result	Result	Result
Metals										
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		----	<0.010	----	<0.010	----
Beryllium	7440-41-7	E475A/VA	0.0020	mg/kg wwt		<0.0020	----	----	----	----
Beryllium	7440-41-7	E472A/VA	0.0020	mg/kg wwt		----	----	<0.0020	----	<0.0020
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		----	<0.0020	----	<0.0020	----
Bismuth	7440-69-9	E475/VA	0.010	mg/kg		<0.010	----	----	----	----
Bismuth	7440-69-9	E472/VA	0.010	mg/kg		----	----	0.024	----	<0.010
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		----	0.027	----	0.022	----
Bismuth	7440-69-9	E475A/VA	0.0020	mg/kg wwt		<0.0020	----	----	----	----
Bismuth	7440-69-9	E472A/VA	0.0020	mg/kg wwt		----	----	0.0073	----	0.0032
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		----	0.0081	----	0.0066	----
Boron	7440-42-8	E475/VA	1.0	mg/kg		<1.0	----	----	----	----
Boron	7440-42-8	E472/VA	1.0	mg/kg		----	----	1.0	----	<1.0
Boron	7440-42-8	E440/VA	1.0	mg/kg		----	1.6	----	1.5	----
Boron	7440-42-8	E475A/VA	0.20	mg/kg wwt		<0.20	----	----	----	----
Boron	7440-42-8	E472A/VA	0.20	mg/kg wwt		----	----	0.31	----	<0.20
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		----	0.47	----	0.45	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		----	1.50	----	0.535	----
Cadmium	7440-43-9	E475/VA	0.010	mg/kg		7.94	----	----	----	----
Cadmium	7440-43-9	E472/VA	0.010	mg/kg		----	----	3.66	----	1.08
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		----	0.442	----	0.158	----
Cadmium	7440-43-9	E475A/VA	0.0020	mg/kg wwt		2.70	----	----	----	----
Cadmium	7440-43-9	E472A/VA	0.0020	mg/kg wwt		----	----	1.10	----	0.358
Calcium	7440-70-2	E475/VA	20	mg/kg		133	----	----	----	----
Calcium	7440-70-2	E472/VA	20	mg/kg		----	----	330	----	155
Calcium	7440-70-2	E440/VA	20	mg/kg		----	37000	----	31300	----
Calcium	7440-70-2	E475A/VA	4.0	mg/kg wwt		45.2	----	----	----	----
Calcium	7440-70-2	E472A/VA	4.0	mg/kg wwt		----	----	98.7	----	51.4
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		----	10900	----	9230	----
Cesium	7440-46-2	E475/VA	0.0050	mg/kg		6.26	----	----	----	----
Cesium	7440-46-2	E472/VA	0.0050	mg/kg		----	----	6.03	----	15.4

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-6-RBV-5-L	CFMP-6-RBV-5a-C	CFMP-6-RBV-5a-L	CFMP-6-RBV-7-C	CFMP-6-RBV-7-L
					Client sampling date / time	22-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-106	VA23C4435-107	VA23C4435-108	VA23C4435-109	VA23C4435-110
						Result	Result	Result	Result	Result
Metals										
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		----	7.14	----	13.5	----
Cesium	7440-46-2	E475A/VA	0.0010	mg/kg wwt		2.12	----	----	----	----
Cesium	7440-46-2	E472A/VA	0.0010	mg/kg wwt		----	----	1.80	----	5.12
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		----	2.10	----	3.98	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		----	0.245	----	0.644	----
Chromium	7440-47-3	E475/VA	0.20	mg/kg		0.55	----	----	----	----
Chromium	7440-47-3	E472/VA	0.20	mg/kg		----	----	<0.20	----	0.22
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		----	0.072	----	0.190	----
Chromium	7440-47-3	E475A/VA	0.040	mg/kg wwt		0.188	----	----	----	----
Chromium	7440-47-3	E472A/VA	0.040	mg/kg wwt		----	----	0.042	----	0.072
Cobalt	7440-48-4	E475/VA	0.020	mg/kg		0.083	----	----	----	----
Cobalt	7440-48-4	E472/VA	0.020	mg/kg		----	----	0.163	----	0.108
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		----	0.162	----	0.209	----
Cobalt	7440-48-4	E475A/VA	0.0040	mg/kg wwt		0.0283	----	----	----	----
Cobalt	7440-48-4	E472A/VA	0.0040	mg/kg wwt		----	----	0.0488	----	0.0358
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		----	0.0477	----	0.0616	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		----	9.36	----	10.1	----
Copper	7440-50-8	E475/VA	0.20	mg/kg		16.9	----	----	----	----
Copper	7440-50-8	E472/VA	0.20	mg/kg		----	----	16.9	----	20.7
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		----	2.76	----	2.97	----
Copper	7440-50-8	E475A/VA	0.040	mg/kg wwt		5.76	----	----	----	----
Copper	7440-50-8	E472A/VA	0.040	mg/kg wwt		----	----	5.06	----	6.88
Iron	7439-89-6	E440/VA	3.0	mg/kg		----	277	----	335	----
Iron	7439-89-6	E475/VA	5.0	mg/kg		883	----	----	----	----
Iron	7439-89-6	E472/VA	5.0	mg/kg		----	----	466	----	1010
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		----	81.5	----	98.8	----
Iron	7439-89-6	E475A/VA	1.0	mg/kg wwt		300	----	----	----	----
Iron	7439-89-6	E472A/VA	1.0	mg/kg wwt		----	----	140	----	336
Lead	7439-92-1	E440/VA	0.020	mg/kg		----	0.302	----	0.221	----
Lead	7439-92-1	E475/VA	0.050	mg/kg		<0.050	----	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-6-RBV-5-L	CFMP-6-RBV-5a-C	CFMP-6-RBV-5a-L	CFMP-6-RBV-7-C	CFMP-6-RBV-7-L
					Client sampling date / time	22-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-106	VA23C4435-107	VA23C4435-108	VA23C4435-109	VA23C4435-110
						Result	Result	Result	Result	Result
Metals										
Lead	7439-92-1	E472/VA	0.050	mg/kg		----	----	0.077	----	<0.050
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		----	0.0892	----	0.0652	----
Lead	7439-92-1	E475A/VA	0.010	mg/kg wwt		0.013	----	----	----	----
Lead	7439-92-1	E472A/VA	0.010	mg/kg wwt		----	----	0.023	----	<0.010
Lithium	7439-93-2	E475/VA	0.50	mg/kg		<0.50	----	----	----	----
Lithium	7439-93-2	E472/VA	0.50	mg/kg		----	----	<0.50	----	<0.50
Lithium	7439-93-2	E440/VA	0.50	mg/kg		----	<0.50	----	<0.50	----
Lithium	7439-93-2	E475A/VA	0.10	mg/kg wwt		<0.10	----	----	----	----
Lithium	7439-93-2	E472A/VA	0.10	mg/kg wwt		----	----	<0.10	----	<0.10
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		----	<0.10	----	<0.10	----
Magnesium	7439-95-4	E475/VA	2.0	mg/kg		753	----	----	----	----
Magnesium	7439-95-4	E472/VA	2.0	mg/kg		----	----	1030	----	835
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		----	1580	----	1560	----
Magnesium	7439-95-4	E475A/VA	0.40	mg/kg wwt		256	----	----	----	----
Magnesium	7439-95-4	E472A/VA	0.40	mg/kg wwt		----	----	310	----	277
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		----	465	----	462	----
Manganese	7439-96-5	E475/VA	0.050	mg/kg		8.20	----	----	----	----
Manganese	7439-96-5	E472/VA	0.050	mg/kg		----	----	25.6	----	12.8
Manganese	7439-96-5	E440/VA	0.050	mg/kg		----	24.2	----	22.7	----
Manganese	7439-96-5	E475A/VA	0.010	mg/kg wwt		2.78	----	----	----	----
Manganese	7439-96-5	E472A/VA	0.010	mg/kg wwt		----	----	7.67	----	4.25
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		----	7.13	----	6.69	----
Mercury	7439-97-6	E511/VA	0.0050	mg/kg		----	----	0.473	----	0.400
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		----	0.278	----	0.386	----
Mercury	7439-97-6	E512/VA	0.010	mg/kg		0.431	----	----	----	----
Mercury	7439-97-6	E511A/VA	0.0010	mg/kg wwt		----	----	0.142	----	0.133
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		----	0.0821	----	0.114	----
Mercury	7439-97-6	E512A/VA	0.0020	mg/kg wwt		0.146	----	----	----	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		----	0.500	----	0.577	----
Molybdenum	7439-98-7	E475/VA	0.040	mg/kg		5.70	----	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-6-RBV-5-L	CFMP-6-RBV-5a-C	CFMP-6-RBV-5a-L	CFMP-6-RBV-7-C	CFMP-6-RBV-7-L
					Client sampling date / time	22-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-106	VA23C4435-107	VA23C4435-108	VA23C4435-109	VA23C4435-110
						Result	Result	Result	Result	Result
Metals										
Molybdenum	7439-98-7	E472/VA	0.040	mg/kg		----	----	3.22	----	5.95
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		----	0.147	----	0.170	----
Molybdenum	7439-98-7	E475A/VA	0.0080	mg/kg wwt		1.94	----	----	----	----
Molybdenum	7439-98-7	E472A/VA	0.0080	mg/kg wwt		----	----	0.963	----	1.98
Nickel	7440-02-0	E475/VA	0.20	mg/kg		<0.20	----	----	----	----
Nickel	7440-02-0	E472/VA	0.20	mg/kg		----	----	0.30	----	<0.20
Nickel	7440-02-0	E440/VA	0.20	mg/kg		----	0.53	----	4.12	----
Nickel	7440-02-0	E475A/VA	0.040	mg/kg wwt		<0.040	----	----	----	----
Nickel	7440-02-0	E472A/VA	0.040	mg/kg wwt		----	----	0.089	----	<0.040
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		----	0.155	----	1.22	----
Phosphorus	7723-14-0	E472/VA	10	mg/kg		----	----	12200	----	14100
Phosphorus	7723-14-0	E440/VA	10	mg/kg		----	29400	----	25800	----
Phosphorus	7723-14-0	E475/VA	20	mg/kg		11400	----	----	----	----
Phosphorus	7723-14-0	E472A/VA	2.0	mg/kg wwt		----	----	3640	----	4700
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		----	8680	----	7610	----
Phosphorus	7723-14-0	E475A/VA	4.0	mg/kg wwt		3880	----	----	----	----
Potassium	7440-09-7	E475/VA	20	mg/kg		9660	----	----	----	----
Potassium	7440-09-7	E472/VA	20	mg/kg		----	----	8810	----	10800
Potassium	7440-09-7	E440/VA	20	mg/kg		----	10500	----	10100	----
Potassium	7440-09-7	E475A/VA	4.0	mg/kg wwt		3280	----	----	----	----
Potassium	7440-09-7	E472A/VA	4.0	mg/kg wwt		----	----	2640	----	3570
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		----	3090	----	2980	----
Rubidium	7440-17-7	E475/VA	0.050	mg/kg		428	----	----	----	----
Rubidium	7440-17-7	E472/VA	0.050	mg/kg		----	----	202	----	339
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		----	198	----	215	----
Rubidium	7440-17-7	E475A/VA	0.010	mg/kg wwt		145	----	----	----	----
Rubidium	7440-17-7	E472A/VA	0.010	mg/kg wwt		----	----	60.4	----	113
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		----	58.5	----	63.5	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		----	0.689	----	0.953	----
Selenium	7782-49-2	E475/VA	0.10	mg/kg		1.53	----	----	----	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-6-RBV-5-L	CFMP-6-RBV-5a-C	CFMP-6-RBV-5a-L	CFMP-6-RBV-7-C	CFMP-6-RBV-7-L
					Client sampling date / time	22-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-106	VA23C4435-107	VA23C4435-108	VA23C4435-109	VA23C4435-110
						Result	Result	Result	Result	Result
Metals										
Selenium	7782-49-2	E472/VA	0.10	mg/kg		----	----	1.60	----	2.90
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		----	0.203	----	0.281	----
Selenium	7782-49-2	E475A/VA	0.020	mg/kg wwt		0.518	----	----	----	----
Selenium	7782-49-2	E472A/VA	0.020	mg/kg wwt		----	----	0.480	----	0.963
Sodium	7440-23-5	E475/VA	20	mg/kg		3270	----	----	----	----
Sodium	7440-23-5	E472/VA	20	mg/kg		----	----	4170	----	3630
Sodium	7440-23-5	E440/VA	20	mg/kg		----	5320	----	4530	----
Sodium	7440-23-5	E475A/VA	4.0	mg/kg wwt		1110	----	----	----	----
Sodium	7440-23-5	E472A/VA	4.0	mg/kg wwt		----	----	1250	----	1210
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		----	1570	----	1340	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		----	33.8	----	42.0	----
Strontium	7440-24-6	E475/VA	0.10	mg/kg		0.18	----	----	----	----
Strontium	7440-24-6	E472/VA	0.10	mg/kg		----	----	0.84	----	<0.10
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		----	9.97	----	12.4	----
Strontium	7440-24-6	E475A/VA	0.020	mg/kg wwt		0.061	----	----	----	----
Strontium	7440-24-6	E472A/VA	0.020	mg/kg wwt		----	----	0.253	----	0.031
Tellurium	13494-80-9	E475/VA	0.020	mg/kg		<0.020	----	----	----	----
Tellurium	13494-80-9	E472/VA	0.020	mg/kg		----	----	<0.020	----	<0.020
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		----	<0.020	----	<0.020	----
Tellurium	13494-80-9	E475A/VA	0.0040	mg/kg wwt		<0.0040	----	----	----	----
Tellurium	13494-80-9	E472A/VA	0.0040	mg/kg wwt		----	----	<0.0040	----	<0.0040
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		----	<0.0040	----	<0.0040	----
Thallium	7440-28-0	E475/VA	0.0020	mg/kg		0.0053	----	----	----	----
Thallium	7440-28-0	E472/VA	0.0020	mg/kg		----	----	0.0291	----	0.0155
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		----	0.0338	----	0.0339	----
Thallium	7440-28-0	E475A/VA	0.00040	mg/kg wwt		0.00181	----	----	----	----
Thallium	7440-28-0	E472A/VA	0.00040	mg/kg wwt		----	----	0.00872	----	0.00514
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		----	0.00997	----	0.00999	----
Tin	7440-31-5	E475/VA	0.10	mg/kg		<0.10	----	----	----	----
Tin	7440-31-5	E472/VA	0.10	mg/kg		----	----	<0.10	----	<0.10

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-6-RBV-5-L	CFMP-6-RBV-5a-C	CFMP-6-RBV-5a-L	CFMP-6-RBV-7-C	CFMP-6-RBV-7-L
					Client sampling date / time	22-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00	23-Sep-2023 00:00
						VA23C4435-106	VA23C4435-107	VA23C4435-108	VA23C4435-109	VA23C4435-110
						Result	Result	Result	Result	Result
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		----	<0.10	----	0.38	----
Tin	7440-31-5	E475A/VA	0.020	mg/kg wwt		<0.020	----	----	----	----
Tin	7440-31-5	E472A/VA	0.020	mg/kg wwt		----	----	<0.020	----	<0.020
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		----	0.024	----	0.113	----
Uranium	7440-61-1	E475/VA	0.0020	mg/kg		<0.0020	----	----	----	----
Uranium	7440-61-1	E472/VA	0.0020	mg/kg		----	----	0.0024	----	<0.0020
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		----	0.0041	----	0.0046	----
Uranium	7440-61-1	E475A/VA	0.00040	mg/kg wwt		<0.00040	----	----	----	----
Uranium	7440-61-1	E472A/VA	0.00040	mg/kg wwt		----	----	0.00072	----	<0.00040
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		----	0.00120	----	0.00137	----
Vanadium	7440-62-2	E475/VA	0.10	mg/kg		<0.10	----	----	----	----
Vanadium	7440-62-2	E472/VA	0.10	mg/kg		----	----	<0.10	----	<0.10
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		----	<0.10	----	0.10	----
Vanadium	7440-62-2	E475A/VA	0.020	mg/kg wwt		<0.020	----	----	----	----
Vanadium	7440-62-2	E472A/VA	0.020	mg/kg wwt		----	----	<0.020	----	<0.020
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		----	<0.020	----	0.030	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		----	101	----	99.8	----
Zinc	7440-66-6	E475/VA	1.0	mg/kg		77.9	----	----	----	----
Zinc	7440-66-6	E472/VA	1.0	mg/kg		----	----	99.8	----	98.6
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		----	29.7	----	29.4	----
Zinc	7440-66-6	E475A/VA	0.20	mg/kg wwt		26.4	----	----	----	----
Zinc	7440-66-6	E472A/VA	0.20	mg/kg wwt		----	----	29.9	----	32.8
Zirconium	7440-67-7	E475/VA	0.20	mg/kg		<0.20	----	----	----	----
Zirconium	7440-67-7	E472/VA	0.20	mg/kg		----	----	<0.20	----	<0.20
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		----	<0.20	----	<0.20	----
Zirconium	7440-67-7	E475A/VA	0.040	mg/kg wwt		<0.040	----	----	----	----
Zirconium	7440-67-7	E472A/VA	0.040	mg/kg wwt		----	----	<0.040	----	<0.040
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		----	<0.040	----	<0.040	----

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

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

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-24-DM-7-C	CFMP-24-DM-7-L	CFMP-40-DM-4a-C	CFMP-40-DM-4a-L	----
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	----
						VA23C4435-111	VA23C4435-112	VA23C4435-115	VA23C4435-116	--------
						Result	Result	Result	Result	----
Physical Tests										
Moisture	----	E144/VA	0.50	%		69.8	72.4	68.9	68.8	----
Metals										
Aluminum	7429-90-5	E440/VA	2.0	mg/kg		108	80.8	125	<2.0	----
Aluminum	7429-90-5	E440A/VA	0.40	mg/kg wwt		32.6	22.2	38.7	0.43	----
Antimony	7440-36-0	E440/VA	0.010	mg/kg		0.026	0.018	0.013	<0.010	----
Antimony	7440-36-0	E440A/VA	0.0020	mg/kg wwt		0.0080	0.0050	0.0040	<0.0020	----
Arsenic	7440-38-2	E440/VA	0.020	mg/kg		0.050	0.040	0.086	<0.020	----
Arsenic	7440-38-2	E440A/VA	0.0040	mg/kg wwt		0.0152	0.0109	0.0268	0.0052	----
Barium	7440-39-3	E440/VA	0.050	mg/kg		16.9	2.84	10.4	<0.050	----
Barium	7440-39-3	E440A/VA	0.010	mg/kg wwt		5.12	0.781	3.23	0.012	----
Beryllium	7440-41-7	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	----
Beryllium	7440-41-7	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	----
Bismuth	7440-69-9	E440/VA	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	----
Bismuth	7440-69-9	E440A/VA	0.0020	mg/kg wwt		<0.0020	<0.0020	<0.0020	<0.0020	----
Boron	7440-42-8	E440/VA	1.0	mg/kg		3.8	2.2	2.9	<1.0	----
Boron	7440-42-8	E440A/VA	0.20	mg/kg wwt		1.13	0.61	0.90	<0.20	----
Cadmium	7440-43-9	E440/VA	0.0050	mg/kg		0.0456	0.197	0.0579	0.0671	----
Cadmium	7440-43-9	E440A/VA	0.0010	mg/kg wwt		0.0138	0.0543	0.0180	0.0210	----
Calcium	7440-70-2	E440/VA	20	mg/kg		32100	2360	26800	182	----
Calcium	7440-70-2	E440A/VA	4.0	mg/kg wwt		9690	651	8340	56.7	----
Cesium	7440-46-2	E440/VA	0.0050	mg/kg		0.0389	0.0373	1.16	1.09	----
Cesium	7440-46-2	E440A/VA	0.0010	mg/kg wwt		0.0118	0.0103	0.361	0.341	----
Chromium	7440-47-3	E440/VA	0.050	mg/kg		0.445	0.428	0.316	<0.050	----
Chromium	7440-47-3	E440A/VA	0.010	mg/kg wwt		0.134	0.118	0.098	<0.010	----
Cobalt	7440-48-4	E440/VA	0.020	mg/kg		0.221	0.754	0.169	0.203	----
Cobalt	7440-48-4	E440A/VA	0.0040	mg/kg wwt		0.0667	0.208	0.0526	0.0633	----
Copper	7440-50-8	E440/VA	0.10	mg/kg		16.4	33.4	11.6	17.7	----
Copper	7440-50-8	E440A/VA	0.020	mg/kg wwt		4.96	9.20	3.60	5.52	----
Iron	7439-89-6	E440/VA	3.0	mg/kg		274	518	267	452	----
Iron	7439-89-6	E440A/VA	0.60	mg/kg wwt		82.8	143	82.9	141	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-24-DM-7-C	CFMP-24-DM-7-L	CFMP-40-DM-4a-C	CFMP-40-DM-4a-L	----
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	----
						VA23C4435-111	VA23C4435-112	VA23C4435-115	VA23C4435-116	--------
						Result	Result	Result	Result	----
Metals										
Lead	7439-92-1	E440/VA	0.020	mg/kg		0.081	0.047	0.246	<0.020	----
Lead	7439-92-1	E440A/VA	0.0040	mg/kg wwt		0.0244	0.0129	0.0766	<0.0040	----
Lithium	7439-93-2	E440/VA	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
Lithium	7439-93-2	E440A/VA	0.10	mg/kg wwt		<0.10	<0.10	<0.10	<0.10	----
Magnesium	7439-95-4	E440/VA	2.0	mg/kg		1580	1120	1460	749	----
Magnesium	7439-95-4	E440A/VA	0.40	mg/kg wwt		478	308	452	234	----
Manganese	7439-96-5	E440/VA	0.050	mg/kg		17.9	27.4	16.4	8.22	----
Manganese	7439-96-5	E440A/VA	0.010	mg/kg wwt		5.42	7.54	5.10	2.56	----
Mercury	7439-97-6	E510/VA	0.0050	mg/kg		0.0111	0.0117	0.0408	0.0736	----
Mercury	7439-97-6	E510A/VA	0.0010	mg/kg wwt		0.0033	0.0032	0.0126	0.0230	----
Molybdenum	7439-98-7	E440/VA	0.020	mg/kg		0.652	3.53	0.864	5.21	----
Molybdenum	7439-98-7	E440A/VA	0.0040	mg/kg wwt		0.197	0.971	0.268	1.63	----
Nickel	7440-02-0	E440/VA	0.20	mg/kg		1.19	0.59	1.83	<0.20	----
Nickel	7440-02-0	E440A/VA	0.040	mg/kg wwt		0.358	0.162	0.567	<0.040	----
Phosphorus	7723-14-0	E440/VA	10	mg/kg		24900	11800	23100	12400	----
Phosphorus	7723-14-0	E440A/VA	2.0	mg/kg wwt		7510	3240	7170	3880	----
Potassium	7440-09-7	E440/VA	20	mg/kg		11500	10400	11700	11400	----
Potassium	7440-09-7	E440A/VA	4.0	mg/kg wwt		3480	2870	3630	3570	----
Rubidium	7440-17-7	E440/VA	0.050	mg/kg		15.8	16.6	37.5	58.2	----
Rubidium	7440-17-7	E440A/VA	0.010	mg/kg wwt		4.78	4.57	11.6	18.1	----
Selenium	7782-49-2	E440/VA	0.050	mg/kg		0.918	3.04	0.924	6.01	----
Selenium	7782-49-2	E440A/VA	0.010	mg/kg wwt		0.277	0.839	0.287	1.87	----
Sodium	7440-23-5	E440/VA	20	mg/kg		5300	5130	4720	3950	----
Sodium	7440-23-5	E440A/VA	4.0	mg/kg wwt		1600	1410	1470	1230	----
Strontium	7440-24-6	E440/VA	0.050	mg/kg		27.1	7.97	22.0	0.164	----
Strontium	7440-24-6	E440A/VA	0.010	mg/kg wwt		8.17	2.20	6.84	0.051	----
Tellurium	13494-80-9	E440/VA	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	----
Tellurium	13494-80-9	E440A/VA	0.0040	mg/kg wwt		<0.0040	<0.0040	<0.0040	<0.0040	----
Thallium	7440-28-0	E440/VA	0.0020	mg/kg		0.0158	0.0228	0.0020	<0.0020	----
Thallium	7440-28-0	E440A/VA	0.00040	mg/kg wwt		0.00476	0.00629	0.00064	<0.00040	----

Analytical Results

Sub-Matrix: **Tissue**
(Matrix: **Biota**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CFMP-24-DM-7-C	CFMP-24-DM-7-L	CFMP-40-DM-4a-C	CFMP-40-DM-4a-L	----
					Client sampling date / time	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	24-Sep-2023 00:00	----
						VA23C4435-111	VA23C4435-112	VA23C4435-115	VA23C4435-116	--------
						Result	Result	Result	Result	----
Metals										
Tin	7440-31-5	E440/VA	0.10	mg/kg		0.17	<0.10	0.12	<0.10	----
Tin	7440-31-5	E440A/VA	0.020	mg/kg wwt		0.051	<0.020	0.038	<0.020	----
Uranium	7440-61-1	E440/VA	0.0020	mg/kg		0.221	0.275	<0.0020	<0.0020	----
Uranium	7440-61-1	E440A/VA	0.00040	mg/kg wwt		0.0666	0.0759	0.00060	<0.00040	----
Vanadium	7440-62-2	E440/VA	0.10	mg/kg		0.32	0.28	0.13	<0.10	----
Vanadium	7440-62-2	E440A/VA	0.020	mg/kg wwt		0.098	0.076	0.040	<0.020	----
Zinc	7440-66-6	E440/VA	0.50	mg/kg		120	116	95.5	127	----
Zinc	7440-66-6	E440A/VA	0.10	mg/kg wwt		36.3	32.1	29.7	39.6	----
Zirconium	7440-67-7	E440/VA	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	----
Zirconium	7440-67-7	E440A/VA	0.040	mg/kg wwt		0.041	<0.040	<0.040	<0.040	----

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

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

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C4435**	Page	: 1 of 73
Client	: **ERM Consultants Canada Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Kimberly San	Account Manager	: Amber Springer
Address	: 10th Floor, 1100 Melville St. Vancouver BC Canada V6E 4A6	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 12-Oct-2023 08:50
PO	: 12970	Issue Date	: 20-Dec-2023 14:35
C-O-C number	: ----		
Sampler	: SS		
Site	: ----		
Quote number	: VA23-BWGL100-005		
No. of samples received	: 114		
No. of samples analysed	: 114		

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

- Method Blank value outliers occur - please see following pages for full details.
- Duplicate outliers occur - please see following pages for full details.
- Laboratory Control Sample (LCS) 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

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Biota**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Physical Tests	QC-1281531-001	----	Moisture	----	E144	0.80 % B	0.5 %	Blank result exceeds permitted value
Metals	QC-MRG4-1276779001	----	Manganese	7439-96-5	E440	0.327 mg/kg B	0.05 mg/kg	Blank result exceeds permitted value
Metals	QC-MRG4-1276779001	----	Manganese	7439-96-5	E440A	0.065 mg/kg wwt B	0.01 mg/kg wwt	Blank result exceeds permitted value

Result Qualifiers

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

Duplicate (DUP) RPDs								
Metals	VA23C4435-100	CFMP-6-DM-9-L	Antimony	7440-36-0	E472A	0.0078 % DUP-H	Diff <2x LOR	Low Level DUP DQO exceeded (difference > 2 LOR).

Result Qualifiers

Qualifier	Description
DUP-H	*Duplicate results outside ALS DQO, due to sample heterogeneity.*

Laboratory Control Sample (LCS) Recoveries								
Metals	QC-MRG4-1276779002	----	Phosphorus	7723-14-0	E440	122 % MES	80.0-120%	Recovery greater than upper control limit
Metals	QC-MRG4-1276779002	----	Potassium	7440-09-7	E440	122 % MES	80.0-120%	Recovery greater than upper control limit
Metals	QC-MRG4-1276779002	----	Sodium	7440-23-5	E440	122 % MES	80.0-120%	Recovery greater than upper control limit
Metals	QC-MRG4-1276779002	----	Phosphorus	7723-14-0	E440A	122 % MES	80.0-120%	Recovery greater than upper control limit
Metals	QC-MRG4-1276779002	----	Potassium	7440-09-7	E440A	122 % MES	80.0-120%	Recovery greater than upper control limit
Metals	QC-MRG4-1276779002	----	Sodium	7440-23-5	E440A	122 % MES	80.0-120%	Recovery greater than upper control limit

Matrix: **Biota**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment

Result Qualifiers

Qualifier	*Description*
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

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 CFMP-19-DM-12-L	E512	23-Sep-2023	15-Dec-2023	365 days	83 days	✓	15-Dec-2023	365 days	84 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag CFMP-14-RBV-7-L	E512	22-Sep-2023	15-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag CFMP-32-RBV-11a-L	E512	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag CFMP-32-RBV-5-L	E512	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag CFMP-40-DM-5-L	E512	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag CFMP-4-RBV-4-L	E512	22-Sep-2023	15-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag CFMP-6-RBV-5-L	E512	22-Sep-2023	15-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 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, Biopsy)										
LDPE bag CFMP-4-RBV-6-L	E512	21-Sep-2023	14-Dec-2023	365 days	85 days	✓	15-Dec-2023	365 days	86 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Biopsy)										
LDPE bag CFMP-32-RBV-12-L	E512	20-Sep-2023	14-Dec-2023	365 days	86 days	✓	15-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-40-DM-20-L	E511	24-Sep-2023	14-Dec-2023	365 days	82 days	✓	15-Dec-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-40-RBV-10-L	E511	24-Sep-2023	14-Dec-2023	365 days	82 days	✓	15-Dec-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-14-RBV-1-L	E511	24-Sep-2023	14-Dec-2023	365 days	82 days	✓	15-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-19-DM-13-L	E511	24-Sep-2023	14-Dec-2023	365 days	82 days	✓	15-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-19-DM-14-L	E511	24-Sep-2023	14-Dec-2023	365 days	82 days	✓	15-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-27-DM-14a-L	E511	24-Sep-2023	14-Dec-2023	365 days	82 days	✓	15-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-27-DM-15-L	E511	24-Sep-2023	14-Dec-2023	365 days	82 days	✓	15-Dec-2023	365 days	83 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 CFMP-27-RBV-13-L	E511	24-Sep-2023	14-Dec-2023	365 days	82 days	✓	15-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-40-RBV-11-L	E511	24-Sep-2023	14-Dec-2023	365 days	82 days	✓	15-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-27-RBV-3-L	E511	23-Sep-2023	14-Dec-2023	365 days	83 days	✓	15-Dec-2023	365 days	84 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-6-DM-1-L	E511	23-Sep-2023	14-Dec-2023	365 days	83 days	✓	15-Dec-2023	365 days	84 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-6-RBV-5a-L	E511	23-Sep-2023	14-Dec-2023	365 days	83 days	✓	15-Dec-2023	365 days	84 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-6-RBV-7-L	E511	23-Sep-2023	14-Dec-2023	365 days	83 days	✓	15-Dec-2023	365 days	84 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-32-RBV-12b-L	E511	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	84 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-32-RBV-8-L	E511	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	84 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-32-RBV-9-L	E511	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	84 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 CFMP-40-DM-4-L	E511	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	84 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-24-DM-2-L	E511	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-32-RBV-1-L	E511	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-40-RBV-8-L	E511	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-6-DM-3-L	E511	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-6-DM-9-L	E511	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-6-RBV-11-L	E511	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-32-RBV-11b-L	E511	21-Sep-2023	14-Dec-2023	365 days	85 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-19-DM-5-L	E511	21-Sep-2023	14-Dec-2023	365 days	85 days	✓	15-Dec-2023	365 days	86 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 CFMP-24-DM-10-L	E511	21-Sep-2023	14-Dec-2023	365 days	85 days	✓	15-Dec-2023	365 days	86 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-24-DM-1-L	E511	21-Sep-2023	14-Dec-2023	365 days	85 days	✓	15-Dec-2023	365 days	86 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-24-DM-3a-L	E511	21-Sep-2023	14-Dec-2023	365 days	85 days	✓	15-Dec-2023	365 days	86 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-27-DM-11a-L	E511	21-Sep-2023	14-Dec-2023	365 days	85 days	✓	15-Dec-2023	365 days	86 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-27-DM-2-L	E511	21-Sep-2023	14-Dec-2023	365 days	85 days	✓	15-Dec-2023	365 days	86 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-6-DM-2a-L	E511	21-Sep-2023	14-Dec-2023	365 days	85 days	✓	15-Dec-2023	365 days	86 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-6-DM-8-L	E511	21-Sep-2023	14-Dec-2023	365 days	85 days	✓	15-Dec-2023	365 days	86 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-6-RBV-4-L	E511	21-Sep-2023	14-Dec-2023	365 days	85 days	✓	15-Dec-2023	365 days	86 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-4-RBV-8-L	E511	20-Sep-2023	14-Dec-2023	365 days	86 days	✓	15-Dec-2023	365 days	86 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 CFMP-27-DM-11-L	E511	20-Sep-2023	14-Dec-2023	365 days	86 days	✓	15-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-27-DM-8-L	E511	20-Sep-2023	14-Dec-2023	365 days	86 days	✓	15-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-32-RBV-11-L	E511	20-Sep-2023	14-Dec-2023	365 days	86 days	✓	15-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Micro)										
LDPE bag CFMP-6-DM-2-L	E511	20-Sep-2023	14-Dec-2023	365 days	86 days	✓	15-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-19-DM-15-L	E510	24-Sep-2023	15-Dec-2023	365 days	83 days	✓	16-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-19-DM-8-L	E510	24-Sep-2023	15-Dec-2023	365 days	83 days	✓	16-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-24-DM-7-L	E510	24-Sep-2023	15-Dec-2023	365 days	83 days	✓	16-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-27-DM-14-L	E510	24-Sep-2023	15-Dec-2023	365 days	83 days	✓	16-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-27-DM-1-L	E510	24-Sep-2023	15-Dec-2023	365 days	83 days	✓	16-Dec-2023	365 days	83 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*	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-27-DM-8-L	E510	24-Sep-2023	15-Dec-2023	365 days	83 days	✓	16-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-40-DM-4a-L	E510	24-Sep-2023	15-Dec-2023	365 days	83 days	✓	16-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-24-DM-5-L	E510	22-Sep-2023	15-Dec-2023	365 days	85 days	✓	16-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-32-RBV-12a-L	E510	21-Sep-2023	15-Dec-2023	365 days	86 days	✓	16-Dec-2023	365 days	86 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-14-RBV-1-C	E510	24-Sep-2023	19-Dec-2023	365 days	86 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-19-DM-13-C	E510	24-Sep-2023	19-Dec-2023	365 days	86 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-19-DM-14-C	E510	24-Sep-2023	19-Dec-2023	365 days	86 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-19-DM-15-C	E510	24-Sep-2023	19-Dec-2023	365 days	86 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-19-DM-8-C	E510	24-Sep-2023	19-Dec-2023	365 days	86 days	✓	19-Dec-2023	365 days	87 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, Routine)										
LDPE bag CFMP-27-DM-14a-C	E510	24-Sep-2023	19-Dec-2023	365 days	86 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-27-DM-14-C	E510	24-Sep-2023	19-Dec-2023	365 days	86 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-27-DM-1-C	E510	24-Sep-2023	19-Dec-2023	365 days	86 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-24-DM-3-L	E510	20-Sep-2023	15-Dec-2023	365 days	87 days	✓	16-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-24-DM-7-C	E510	24-Sep-2023	19-Dec-2023	365 days	87 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-27-DM-15-C	E510	24-Sep-2023	19-Dec-2023	365 days	87 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-27-DM-8-C	E510	24-Sep-2023	19-Dec-2023	365 days	87 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-27-RBV-13-C	E510	24-Sep-2023	19-Dec-2023	365 days	87 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-40-DM-20-C	E510	24-Sep-2023	19-Dec-2023	365 days	87 days	✓	19-Dec-2023	365 days	87 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, Routine)										
LDPE bag CFMP-40-DM-4a-C	E510	24-Sep-2023	19-Dec-2023	365 days	87 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-40-RBV-10-C	E510	24-Sep-2023	19-Dec-2023	365 days	87 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-40-RBV-11-C	E510	24-Sep-2023	19-Dec-2023	365 days	87 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-19-DM-12-C	E510	23-Sep-2023	19-Dec-2023	365 days	87 days	✓	19-Dec-2023	365 days	88 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-27-RBV-3-C	E510	23-Sep-2023	19-Dec-2023	365 days	88 days	✓	19-Dec-2023	365 days	88 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-6-DM-1-C	E510	23-Sep-2023	19-Dec-2023	365 days	88 days	✓	19-Dec-2023	365 days	88 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-6-RBV-5a-C	E510	23-Sep-2023	19-Dec-2023	365 days	88 days	✓	19-Dec-2023	365 days	88 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-6-RBV-7-C	E510	23-Sep-2023	19-Dec-2023	365 days	88 days	✓	19-Dec-2023	365 days	88 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-14-RBV-7-C	E510	22-Sep-2023	19-Dec-2023	365 days	88 days	✓	19-Dec-2023	365 days	89 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*	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-24-DM-2-C	E510	22-Sep-2023	19-Dec-2023	365 days	88 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-24-DM-5-C	E510	22-Sep-2023	19-Dec-2023	365 days	88 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-32-RBV-11a-C	E510	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-32-RBV-12b-C	E510	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-32-RBV-1-C	E510	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-32-RBV-5-C	E510	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-32-RBV-8-C	E510	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-32-RBV-9-C	E510	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-40-DM-4-C	E510	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 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, Routine)										
LDPE bag CFMP-40-DM-5-C	E510	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-40-RBV-8-C	E510	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-4-RBV-4-C	E510	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-6-DM-3-C	E510	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-6-DM-9-C	E510	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-6-RBV-11-C	E510	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-6-RBV-5-C	E510	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-19-DM-5-C	E510	21-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	90 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-24-DM-10-C	E510	21-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	90 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*	
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-24-DM-1-C	E510	21-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	90 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-24-DM-3a-C	E510	21-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	90 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-27-DM-11a-C	E510	21-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	90 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-27-DM-2-C	E510	21-Sep-2023	19-Dec-2023	365 days	90 days	✓	19-Dec-2023	365 days	90 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-32-RBV-11b-C	E510	21-Sep-2023	19-Dec-2023	365 days	90 days	✓	19-Dec-2023	365 days	90 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-32-RBV-12a-C	E510	21-Sep-2023	19-Dec-2023	365 days	90 days	✓	19-Dec-2023	365 days	90 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-4-RBV-6-C	E510	21-Sep-2023	19-Dec-2023	365 days	90 days	✓	19-Dec-2023	365 days	90 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-6-DM-2a-C	E510	21-Sep-2023	19-Dec-2023	365 days	90 days	✓	19-Dec-2023	365 days	90 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-6-DM-8-C	E510	21-Sep-2023	19-Dec-2023	365 days	90 days	✓	19-Dec-2023	365 days	90 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, Routine)										
LDPE bag CFMP-6-RBV-4-C	E510	21-Sep-2023	19-Dec-2023	365 days	90 days	✓	19-Dec-2023	365 days	90 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-24-DM-3-C	E510	20-Sep-2023	19-Dec-2023	365 days	90 days	✓	19-Dec-2023	365 days	91 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-24-DM-8-C	E510	20-Sep-2023	19-Dec-2023	365 days	90 days	✓	19-Dec-2023	365 days	91 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-27-DM-11-C	E510	20-Sep-2023	19-Dec-2023	365 days	90 days	✓	19-Dec-2023	365 days	91 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-32-RBV-11-C	E510	20-Sep-2023	19-Dec-2023	365 days	91 days	✓	19-Dec-2023	365 days	91 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-32-RBV-12-C	E510	20-Sep-2023	19-Dec-2023	365 days	91 days	✓	19-Dec-2023	365 days	91 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-4-RBV-8-C	E510	20-Sep-2023	19-Dec-2023	365 days	91 days	✓	19-Dec-2023	365 days	91 days	✓
Metals : Mercury in Biota by CVAAS (DRY units, Routine)										
LDPE bag CFMP-6-DM-2-C	E510	20-Sep-2023	19-Dec-2023	365 days	91 days	✓	19-Dec-2023	365 days	91 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag CFMP-19-DM-12-L	E512A	23-Sep-2023	15-Dec-2023	365 days	83 days	✓	15-Dec-2023	365 days	84 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 units, Biopsy)										
LDPE bag CFMP-14-RBV-7-L	E512A	22-Sep-2023	15-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag CFMP-32-RBV-11a-L	E512A	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag CFMP-32-RBV-5-L	E512A	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag CFMP-40-DM-5-L	E512A	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag CFMP-4-RBV-4-L	E512A	22-Sep-2023	15-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag CFMP-6-RBV-5-L	E512A	22-Sep-2023	15-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag CFMP-4-RBV-6-L	E512A	21-Sep-2023	14-Dec-2023	365 days	85 days	✓	15-Dec-2023	365 days	86 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Biopsy)										
LDPE bag CFMP-32-RBV-12-L	E512A	20-Sep-2023	14-Dec-2023	365 days	86 days	✓	15-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-40-DM-20-L	E511A	24-Sep-2023	14-Dec-2023	365 days	82 days	✓	15-Dec-2023	365 days	82 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*	
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-40-RBV-10-L	E511A	24-Sep-2023	14-Dec-2023	365 days	82 days	✓	15-Dec-2023	365 days	82 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-14-RBV-1-L	E511A	24-Sep-2023	14-Dec-2023	365 days	82 days	✓	15-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-19-DM-13-L	E511A	24-Sep-2023	14-Dec-2023	365 days	82 days	✓	15-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-19-DM-14-L	E511A	24-Sep-2023	14-Dec-2023	365 days	82 days	✓	15-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-27-DM-14a-L	E511A	24-Sep-2023	14-Dec-2023	365 days	82 days	✓	15-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-27-DM-15-L	E511A	24-Sep-2023	14-Dec-2023	365 days	82 days	✓	15-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-27-RBV-13-L	E511A	24-Sep-2023	14-Dec-2023	365 days	82 days	✓	15-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-40-RBV-11-L	E511A	24-Sep-2023	14-Dec-2023	365 days	82 days	✓	15-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-27-RBV-3-L	E511A	23-Sep-2023	14-Dec-2023	365 days	83 days	✓	15-Dec-2023	365 days	84 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*	
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-6-DM-1-L	E511A	23-Sep-2023	14-Dec-2023	365 days	83 days	✓	15-Dec-2023	365 days	84 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-6-RBV-5a-L	E511A	23-Sep-2023	14-Dec-2023	365 days	83 days	✓	15-Dec-2023	365 days	84 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-6-RBV-7-L	E511A	23-Sep-2023	14-Dec-2023	365 days	83 days	✓	15-Dec-2023	365 days	84 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-32-RBV-12b-L	E511A	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	84 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-32-RBV-8-L	E511A	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	84 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-32-RBV-9-L	E511A	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	84 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-40-DM-4-L	E511A	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	84 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-24-DM-2-L	E511A	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-32-RBV-1-L	E511A	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 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 units, Micro)										
LDPE bag CFMP-40-RBV-8-L	E511A	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-6-DM-3-L	E511A	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-6-DM-9-L	E511A	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-6-RBV-11-L	E511A	22-Sep-2023	14-Dec-2023	365 days	84 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-32-RBV-11b-L	E511A	21-Sep-2023	14-Dec-2023	365 days	85 days	✓	15-Dec-2023	365 days	85 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-19-DM-5-L	E511A	21-Sep-2023	14-Dec-2023	365 days	85 days	✓	15-Dec-2023	365 days	86 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-24-DM-10-L	E511A	21-Sep-2023	14-Dec-2023	365 days	85 days	✓	15-Dec-2023	365 days	86 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-24-DM-1-L	E511A	21-Sep-2023	14-Dec-2023	365 days	85 days	✓	15-Dec-2023	365 days	86 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-24-DM-3a-L	E511A	21-Sep-2023	14-Dec-2023	365 days	85 days	✓	15-Dec-2023	365 days	86 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*	
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-27-DM-11a-L	E511A	21-Sep-2023	14-Dec-2023	365 days	85 days	✓	15-Dec-2023	365 days	86 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-27-DM-2-L	E511A	21-Sep-2023	14-Dec-2023	365 days	85 days	✓	15-Dec-2023	365 days	86 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-6-DM-2a-L	E511A	21-Sep-2023	14-Dec-2023	365 days	85 days	✓	15-Dec-2023	365 days	86 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-6-DM-8-L	E511A	21-Sep-2023	14-Dec-2023	365 days	85 days	✓	15-Dec-2023	365 days	86 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-6-RBV-4-L	E511A	21-Sep-2023	14-Dec-2023	365 days	85 days	✓	15-Dec-2023	365 days	86 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-4-RBV-8-L	E511A	20-Sep-2023	14-Dec-2023	365 days	86 days	✓	15-Dec-2023	365 days	86 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-27-DM-11-L	E511A	20-Sep-2023	14-Dec-2023	365 days	86 days	✓	15-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-27-DM-8-L	E511A	20-Sep-2023	14-Dec-2023	365 days	86 days	✓	15-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Micro)										
LDPE bag CFMP-32-RBV-11-L	E511A	20-Sep-2023	14-Dec-2023	365 days	86 days	✓	15-Dec-2023	365 days	87 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 units, Micro)										
LDPE bag CFMP-6-DM-2-L	E511A	20-Sep-2023	14-Dec-2023	365 days	86 days	✓	15-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-19-DM-15-L	E510A	24-Sep-2023	15-Dec-2023	365 days	83 days	✓	16-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-19-DM-8-L	E510A	24-Sep-2023	15-Dec-2023	365 days	83 days	✓	16-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-24-DM-7-L	E510A	24-Sep-2023	15-Dec-2023	365 days	83 days	✓	16-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-27-DM-14-L	E510A	24-Sep-2023	15-Dec-2023	365 days	83 days	✓	16-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-27-DM-1-L	E510A	24-Sep-2023	15-Dec-2023	365 days	83 days	✓	16-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-27-DM-8-L	E510A	24-Sep-2023	15-Dec-2023	365 days	83 days	✓	16-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-40-DM-4a-L	E510A	24-Sep-2023	15-Dec-2023	365 days	83 days	✓	16-Dec-2023	365 days	83 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-24-DM-5-L	E510A	22-Sep-2023	15-Dec-2023	365 days	85 days	✓	16-Dec-2023	365 days	85 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*	
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-32-RBV-12a-L	E510A	21-Sep-2023	15-Dec-2023	365 days	86 days	✓	16-Dec-2023	365 days	86 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-14-RBV-1-C	E510A	24-Sep-2023	19-Dec-2023	365 days	86 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-19-DM-13-C	E510A	24-Sep-2023	19-Dec-2023	365 days	86 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-19-DM-14-C	E510A	24-Sep-2023	19-Dec-2023	365 days	86 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-19-DM-15-C	E510A	24-Sep-2023	19-Dec-2023	365 days	86 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-19-DM-8-C	E510A	24-Sep-2023	19-Dec-2023	365 days	86 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-27-DM-14a-C	E510A	24-Sep-2023	19-Dec-2023	365 days	86 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-27-DM-14-C	E510A	24-Sep-2023	19-Dec-2023	365 days	86 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-27-DM-1-C	E510A	24-Sep-2023	19-Dec-2023	365 days	86 days	✓	19-Dec-2023	365 days	87 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 units, Routine)										
LDPE bag CFMP-24-DM-3-L	E510A	20-Sep-2023	15-Dec-2023	365 days	87 days	✓	16-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-24-DM-7-C	E510A	24-Sep-2023	19-Dec-2023	365 days	87 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-27-DM-15-C	E510A	24-Sep-2023	19-Dec-2023	365 days	87 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-27-DM-8-C	E510A	24-Sep-2023	19-Dec-2023	365 days	87 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-27-RBV-13-C	E510A	24-Sep-2023	19-Dec-2023	365 days	87 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-40-DM-20-C	E510A	24-Sep-2023	19-Dec-2023	365 days	87 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-40-DM-4a-C	E510A	24-Sep-2023	19-Dec-2023	365 days	87 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-40-RBV-10-C	E510A	24-Sep-2023	19-Dec-2023	365 days	87 days	✓	19-Dec-2023	365 days	87 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-40-RBV-11-C	E510A	24-Sep-2023	19-Dec-2023	365 days	87 days	✓	19-Dec-2023	365 days	87 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*	
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-19-DM-12-C	E510A	23-Sep-2023	19-Dec-2023	365 days	87 days	✓	19-Dec-2023	365 days	88 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-27-RBV-3-C	E510A	23-Sep-2023	19-Dec-2023	365 days	88 days	✓	19-Dec-2023	365 days	88 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-6-DM-1-C	E510A	23-Sep-2023	19-Dec-2023	365 days	88 days	✓	19-Dec-2023	365 days	88 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-6-RBV-5a-C	E510A	23-Sep-2023	19-Dec-2023	365 days	88 days	✓	19-Dec-2023	365 days	88 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-6-RBV-7-C	E510A	23-Sep-2023	19-Dec-2023	365 days	88 days	✓	19-Dec-2023	365 days	88 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-14-RBV-7-C	E510A	22-Sep-2023	19-Dec-2023	365 days	88 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-24-DM-2-C	E510A	22-Sep-2023	19-Dec-2023	365 days	88 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-24-DM-5-C	E510A	22-Sep-2023	19-Dec-2023	365 days	88 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-32-RBV-11a-C	E510A	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 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 units, Routine)										
LDPE bag CFMP-32-RBV-12b-C	E510A	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-32-RBV-1-C	E510A	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-32-RBV-5-C	E510A	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-32-RBV-8-C	E510A	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-32-RBV-9-C	E510A	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-40-DM-4-C	E510A	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-40-DM-5-C	E510A	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-40-RBV-8-C	E510A	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-4-RBV-4-C	E510A	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 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*	
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-6-DM-3-C	E510A	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-6-DM-9-C	E510A	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-6-RBV-11-C	E510A	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-6-RBV-5-C	E510A	22-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	89 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-19-DM-5-C	E510A	21-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	90 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-24-DM-10-C	E510A	21-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	90 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-24-DM-1-C	E510A	21-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	90 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-24-DM-3a-C	E510A	21-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	90 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-27-DM-11a-C	E510A	21-Sep-2023	19-Dec-2023	365 days	89 days	✓	19-Dec-2023	365 days	90 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 units, Routine)										
LDPE bag CFMP-27-DM-2-C	E510A	21-Sep-2023	19-Dec-2023	365 days	90 days	✓	19-Dec-2023	365 days	90 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-32-RBV-11b-C	E510A	21-Sep-2023	19-Dec-2023	365 days	90 days	✓	19-Dec-2023	365 days	90 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-32-RBV-12a-C	E510A	21-Sep-2023	19-Dec-2023	365 days	90 days	✓	19-Dec-2023	365 days	90 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-4-RBV-6-C	E510A	21-Sep-2023	19-Dec-2023	365 days	90 days	✓	19-Dec-2023	365 days	90 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-6-DM-2a-C	E510A	21-Sep-2023	19-Dec-2023	365 days	90 days	✓	19-Dec-2023	365 days	90 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-6-DM-8-C	E510A	21-Sep-2023	19-Dec-2023	365 days	90 days	✓	19-Dec-2023	365 days	90 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-6-RBV-4-C	E510A	21-Sep-2023	19-Dec-2023	365 days	90 days	✓	19-Dec-2023	365 days	90 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-24-DM-3-C	E510A	20-Sep-2023	19-Dec-2023	365 days	90 days	✓	19-Dec-2023	365 days	91 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-24-DM-8-C	E510A	20-Sep-2023	19-Dec-2023	365 days	90 days	✓	19-Dec-2023	365 days	91 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*	
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-27-DM-11-C	E510A	20-Sep-2023	19-Dec-2023	365 days	90 days	✓	19-Dec-2023	365 days	91 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-32-RBV-11-C	E510A	20-Sep-2023	19-Dec-2023	365 days	91 days	✓	19-Dec-2023	365 days	91 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-32-RBV-12-C	E510A	20-Sep-2023	19-Dec-2023	365 days	91 days	✓	19-Dec-2023	365 days	91 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-4-RBV-8-C	E510A	20-Sep-2023	19-Dec-2023	365 days	91 days	✓	19-Dec-2023	365 days	91 days	✓
Metals : Mercury in Biota by CVAAS (WET units, Routine)										
LDPE bag CFMP-6-DM-2-C	E510A	20-Sep-2023	19-Dec-2023	365 days	91 days	✓	19-Dec-2023	365 days	91 days	✓
Metals : Metals by CRC ICPMS (DRY units, Biopsy)										
LDPE bag CFMP-19-DM-12-L	E475	23-Sep-2023	15-Dec-2023	730 days	83 days	✓	15-Dec-2023	730 days	84 days	✓
Metals : Metals by CRC ICPMS (DRY units, Biopsy)										
LDPE bag CFMP-14-RBV-7-L	E475	22-Sep-2023	15-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 days	✓
Metals : Metals by CRC ICPMS (DRY units, Biopsy)										
LDPE bag CFMP-32-RBV-11a-L	E475	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 days	✓
Metals : Metals by CRC ICPMS (DRY units, Biopsy)										
LDPE bag CFMP-32-RBV-5-L	E475	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 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 by CRC ICPMS (DRY units, Biopsy)										
LDPE bag CFMP-40-DM-5-L	E475	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 days	✓
Metals : Metals by CRC ICPMS (DRY units, Biopsy)										
LDPE bag CFMP-4-RBV-4-L	E475	22-Sep-2023	15-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 days	✓
Metals : Metals by CRC ICPMS (DRY units, Biopsy)										
LDPE bag CFMP-6-RBV-5-L	E475	22-Sep-2023	15-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 days	✓
Metals : Metals by CRC ICPMS (DRY units, Biopsy)										
LDPE bag CFMP-4-RBV-6-L	E475	21-Sep-2023	14-Dec-2023	730 days	85 days	✓	15-Dec-2023	730 days	86 days	✓
Metals : Metals by CRC ICPMS (DRY units, Biopsy)										
LDPE bag CFMP-32-RBV-12-L	E475	20-Sep-2023	14-Dec-2023	730 days	86 days	✓	15-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-40-DM-20-L	E472	24-Sep-2023	14-Dec-2023	730 days	82 days	✓	15-Dec-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-40-RBV-10-L	E472	24-Sep-2023	14-Dec-2023	730 days	82 days	✓	15-Dec-2023	730 days	82 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-14-RBV-1-L	E472	24-Sep-2023	14-Dec-2023	730 days	82 days	✓	15-Dec-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-19-DM-13-L	E472	24-Sep-2023	14-Dec-2023	730 days	82 days	✓	15-Dec-2023	730 days	83 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 CFMP-19-DM-14-L	E472	24-Sep-2023	14-Dec-2023	730 days	82 days	✓	15-Dec-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-27-DM-14a-L	E472	24-Sep-2023	14-Dec-2023	730 days	82 days	✓	15-Dec-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-27-DM-15-L	E472	24-Sep-2023	14-Dec-2023	730 days	82 days	✓	15-Dec-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-27-RBV-13-L	E472	24-Sep-2023	14-Dec-2023	730 days	82 days	✓	15-Dec-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-40-RBV-11-L	E472	24-Sep-2023	14-Dec-2023	730 days	82 days	✓	15-Dec-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-27-RBV-3-L	E472	23-Sep-2023	14-Dec-2023	730 days	83 days	✓	15-Dec-2023	730 days	84 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-6-DM-1-L	E472	23-Sep-2023	14-Dec-2023	730 days	83 days	✓	15-Dec-2023	730 days	84 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-6-RBV-5a-L	E472	23-Sep-2023	14-Dec-2023	730 days	83 days	✓	15-Dec-2023	730 days	84 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-6-RBV-7-L	E472	23-Sep-2023	14-Dec-2023	730 days	83 days	✓	15-Dec-2023	730 days	84 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 CFMP-32-RBV-12b-L	E472	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	84 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-32-RBV-8-L	E472	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	84 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-32-RBV-9-L	E472	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	84 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-40-DM-4-L	E472	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	84 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-24-DM-2-L	E472	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-32-RBV-1-L	E472	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-40-RBV-8-L	E472	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-6-DM-3-L	E472	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-6-DM-9-L	E472	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 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 CFMP-6-RBV-11-L	E472	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-32-RBV-11b-L	E472	21-Sep-2023	14-Dec-2023	730 days	85 days	✓	15-Dec-2023	730 days	85 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-19-DM-5-L	E472	21-Sep-2023	14-Dec-2023	730 days	85 days	✓	15-Dec-2023	730 days	86 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-24-DM-10-L	E472	21-Sep-2023	14-Dec-2023	730 days	85 days	✓	15-Dec-2023	730 days	86 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-24-DM-1-L	E472	21-Sep-2023	14-Dec-2023	730 days	85 days	✓	15-Dec-2023	730 days	86 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-24-DM-3a-L	E472	21-Sep-2023	14-Dec-2023	730 days	85 days	✓	15-Dec-2023	730 days	86 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-27-DM-11a-L	E472	21-Sep-2023	14-Dec-2023	730 days	85 days	✓	15-Dec-2023	730 days	86 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-27-DM-2-L	E472	21-Sep-2023	14-Dec-2023	730 days	85 days	✓	15-Dec-2023	730 days	86 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-6-DM-2a-L	E472	21-Sep-2023	14-Dec-2023	730 days	85 days	✓	15-Dec-2023	730 days	86 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 CFMP-6-DM-8-L	E472	21-Sep-2023	14-Dec-2023	730 days	85 days	✓	15-Dec-2023	730 days	86 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-6-RBV-4-L	E472	21-Sep-2023	14-Dec-2023	730 days	85 days	✓	15-Dec-2023	730 days	86 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-4-RBV-8-L	E472	20-Sep-2023	14-Dec-2023	730 days	86 days	✓	15-Dec-2023	730 days	86 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-27-DM-11-L	E472	20-Sep-2023	14-Dec-2023	730 days	86 days	✓	15-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-27-DM-8-L	E472	20-Sep-2023	14-Dec-2023	730 days	86 days	✓	15-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-32-RBV-11-L	E472	20-Sep-2023	14-Dec-2023	730 days	86 days	✓	15-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Micro)										
LDPE bag CFMP-6-DM-2-L	E472	20-Sep-2023	14-Dec-2023	730 days	86 days	✓	15-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-19-DM-15-L	E440	24-Sep-2023	15-Dec-2023	730 days	83 days	✓	16-Dec-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-19-DM-8-L	E440	24-Sep-2023	15-Dec-2023	730 days	83 days	✓	16-Dec-2023	730 days	83 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, Routine)										
LDPE bag CFMP-24-DM-7-L	E440	24-Sep-2023	15-Dec-2023	730 days	83 days	✓	16-Dec-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-27-DM-14-L	E440	24-Sep-2023	15-Dec-2023	730 days	83 days	✓	16-Dec-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-27-DM-1-L	E440	24-Sep-2023	15-Dec-2023	730 days	83 days	✓	16-Dec-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-27-DM-8-L	E440	24-Sep-2023	15-Dec-2023	730 days	83 days	✓	16-Dec-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-40-DM-4a-L	E440	24-Sep-2023	15-Dec-2023	730 days	83 days	✓	16-Dec-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-24-DM-5-L	E440	22-Sep-2023	15-Dec-2023	730 days	85 days	✓	16-Dec-2023	730 days	85 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-32-RBV-12a-L	E440	21-Sep-2023	15-Dec-2023	730 days	86 days	✓	16-Dec-2023	730 days	86 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-14-RBV-1-C	E440	24-Sep-2023	19-Dec-2023	730 days	86 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-19-DM-13-C	E440	24-Sep-2023	19-Dec-2023	730 days	86 days	✓	19-Dec-2023	730 days	87 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, Routine)										
LDPE bag CFMP-19-DM-14-C	E440	24-Sep-2023	19-Dec-2023	730 days	86 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-19-DM-15-C	E440	24-Sep-2023	19-Dec-2023	730 days	86 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-19-DM-8-C	E440	24-Sep-2023	19-Dec-2023	730 days	86 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-27-DM-14a-C	E440	24-Sep-2023	19-Dec-2023	730 days	86 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-27-DM-14-C	E440	24-Sep-2023	19-Dec-2023	730 days	86 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-27-DM-1-C	E440	24-Sep-2023	19-Dec-2023	730 days	86 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-24-DM-3-L	E440	20-Sep-2023	15-Dec-2023	730 days	87 days	✓	16-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-24-DM-7-C	E440	24-Sep-2023	19-Dec-2023	730 days	87 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-27-DM-15-C	E440	24-Sep-2023	19-Dec-2023	730 days	87 days	✓	19-Dec-2023	730 days	87 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, Routine)										
LDPE bag CFMP-27-DM-8-C	E440	24-Sep-2023	19-Dec-2023	730 days	87 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-27-RBV-13-C	E440	24-Sep-2023	19-Dec-2023	730 days	87 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-40-DM-20-C	E440	24-Sep-2023	19-Dec-2023	730 days	87 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-40-DM-4a-C	E440	24-Sep-2023	19-Dec-2023	730 days	87 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-40-RBV-10-C	E440	24-Sep-2023	19-Dec-2023	730 days	87 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-40-RBV-11-C	E440	24-Sep-2023	19-Dec-2023	730 days	87 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-19-DM-12-C	E440	23-Sep-2023	19-Dec-2023	730 days	87 days	✓	19-Dec-2023	730 days	88 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-27-RBV-3-C	E440	23-Sep-2023	19-Dec-2023	730 days	88 days	✓	19-Dec-2023	730 days	88 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-6-DM-1-C	E440	23-Sep-2023	19-Dec-2023	730 days	88 days	✓	19-Dec-2023	730 days	88 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, Routine)										
LDPE bag CFMP-6-RBV-5a-C	E440	23-Sep-2023	19-Dec-2023	730 days	88 days	✓	19-Dec-2023	730 days	88 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-6-RBV-7-C	E440	23-Sep-2023	19-Dec-2023	730 days	88 days	✓	19-Dec-2023	730 days	88 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-14-RBV-7-C	E440	22-Sep-2023	19-Dec-2023	730 days	88 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-24-DM-2-C	E440	22-Sep-2023	19-Dec-2023	730 days	88 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-24-DM-5-C	E440	22-Sep-2023	19-Dec-2023	730 days	88 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-32-RBV-11a-C	E440	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-32-RBV-12b-C	E440	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-32-RBV-1-C	E440	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-32-RBV-5-C	E440	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 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, Routine)										
LDPE bag CFMP-32-RBV-8-C	E440	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-32-RBV-9-C	E440	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-40-DM-4-C	E440	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-40-DM-5-C	E440	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-40-RBV-8-C	E440	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-4-RBV-4-C	E440	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-6-DM-3-C	E440	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-6-DM-9-C	E440	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-6-RBV-11-C	E440	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 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, Routine)										
LDPE bag CFMP-6-RBV-5-C	E440	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-19-DM-5-C	E440	21-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	90 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-24-DM-10-C	E440	21-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	90 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-24-DM-1-C	E440	21-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	90 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-24-DM-3a-C	E440	21-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	90 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-27-DM-11a-C	E440	21-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	90 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-27-DM-2-C	E440	21-Sep-2023	19-Dec-2023	730 days	90 days	✓	19-Dec-2023	730 days	90 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-32-RBV-11b-C	E440	21-Sep-2023	19-Dec-2023	730 days	90 days	✓	19-Dec-2023	730 days	90 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-32-RBV-12a-C	E440	21-Sep-2023	19-Dec-2023	730 days	90 days	✓	19-Dec-2023	730 days	90 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, Routine)										
LDPE bag CFMP-4-RBV-6-C	E440	21-Sep-2023	19-Dec-2023	730 days	90 days	✓	19-Dec-2023	730 days	90 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-6-DM-2a-C	E440	21-Sep-2023	19-Dec-2023	730 days	90 days	✓	19-Dec-2023	730 days	90 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-6-DM-8-C	E440	21-Sep-2023	19-Dec-2023	730 days	90 days	✓	19-Dec-2023	730 days	90 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-6-RBV-4-C	E440	21-Sep-2023	19-Dec-2023	730 days	90 days	✓	19-Dec-2023	730 days	90 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-24-DM-3-C	E440	20-Sep-2023	19-Dec-2023	730 days	90 days	✓	19-Dec-2023	730 days	91 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-24-DM-8-C	E440	20-Sep-2023	19-Dec-2023	730 days	90 days	✓	19-Dec-2023	730 days	91 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-27-DM-11-C	E440	20-Sep-2023	19-Dec-2023	730 days	90 days	✓	19-Dec-2023	730 days	91 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-32-RBV-11-C	E440	20-Sep-2023	19-Dec-2023	730 days	91 days	✓	19-Dec-2023	730 days	91 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-32-RBV-12-C	E440	20-Sep-2023	19-Dec-2023	730 days	91 days	✓	19-Dec-2023	730 days	91 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, Routine)										
LDPE bag CFMP-4-RBV-8-C	E440	20-Sep-2023	19-Dec-2023	730 days	91 days	✓	19-Dec-2023	730 days	91 days	✓
Metals : Metals in Biota by CRC ICPMS (DRY units, Routine)										
LDPE bag CFMP-6-DM-2-C	E440	20-Sep-2023	19-Dec-2023	730 days	91 days	✓	19-Dec-2023	730 days	91 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Biopsy)										
LDPE bag CFMP-19-DM-12-L	E475A	23-Sep-2023	15-Dec-2023	730 days	83 days	✓	15-Dec-2023	730 days	84 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Biopsy)										
LDPE bag CFMP-32-RBV-11a-L	E475A	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	84 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Biopsy)										
LDPE bag CFMP-32-RBV-5-L	E475A	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	84 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Biopsy)										
LDPE bag CFMP-40-DM-5-L	E475A	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	84 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Biopsy)										
LDPE bag CFMP-14-RBV-7-L	E475A	22-Sep-2023	15-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Biopsy)										
LDPE bag CFMP-4-RBV-4-L	E475A	22-Sep-2023	15-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Biopsy)										
LDPE bag CFMP-6-RBV-5-L	E475A	22-Sep-2023	15-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 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 units, Biopsy)										
LDPE bag CFMP-4-RBV-6-L	E475A	21-Sep-2023	14-Dec-2023	730 days	85 days	✓	15-Dec-2023	730 days	85 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Biopsy)										
LDPE bag CFMP-32-RBV-12-L	E475A	20-Sep-2023	14-Dec-2023	730 days	86 days	✓	15-Dec-2023	730 days	86 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-14-RBV-1-L	E472A	24-Sep-2023	14-Dec-2023	730 days	82 days	✓	15-Dec-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-19-DM-13-L	E472A	24-Sep-2023	14-Dec-2023	730 days	82 days	✓	15-Dec-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-19-DM-14-L	E472A	24-Sep-2023	14-Dec-2023	730 days	82 days	✓	15-Dec-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-27-DM-14a-L	E472A	24-Sep-2023	14-Dec-2023	730 days	82 days	✓	15-Dec-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-27-DM-15-L	E472A	24-Sep-2023	14-Dec-2023	730 days	82 days	✓	15-Dec-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-27-RBV-13-L	E472A	24-Sep-2023	14-Dec-2023	730 days	82 days	✓	15-Dec-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-40-DM-20-L	E472A	24-Sep-2023	14-Dec-2023	730 days	82 days	✓	15-Dec-2023	730 days	83 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 units, Micro)										
LDPE bag CFMP-40-RBV-10-L	E472A	24-Sep-2023	14-Dec-2023	730 days	82 days	✓	15-Dec-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-40-RBV-11-L	E472A	24-Sep-2023	14-Dec-2023	730 days	82 days	✓	15-Dec-2023	730 days	83 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-27-RBV-3-L	E472A	23-Sep-2023	14-Dec-2023	730 days	83 days	✓	15-Dec-2023	730 days	84 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-6-DM-1-L	E472A	23-Sep-2023	14-Dec-2023	730 days	83 days	✓	15-Dec-2023	730 days	84 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-6-RBV-5a-L	E472A	23-Sep-2023	14-Dec-2023	730 days	83 days	✓	15-Dec-2023	730 days	84 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-6-RBV-7-L	E472A	23-Sep-2023	14-Dec-2023	730 days	83 days	✓	15-Dec-2023	730 days	84 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-24-DM-2-L	E472A	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-32-RBV-12b-L	E472A	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-32-RBV-1-L	E472A	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 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 units, Micro)										
LDPE bag CFMP-32-RBV-8-L	E472A	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-32-RBV-9-L	E472A	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-40-DM-4-L	E472A	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-40-RBV-8-L	E472A	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-6-DM-3-L	E472A	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-6-DM-9-L	E472A	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-6-RBV-11-L	E472A	22-Sep-2023	14-Dec-2023	730 days	84 days	✓	15-Dec-2023	730 days	85 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-19-DM-5-L	E472A	21-Sep-2023	14-Dec-2023	730 days	85 days	✓	15-Dec-2023	730 days	86 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-24-DM-10-L	E472A	21-Sep-2023	14-Dec-2023	730 days	85 days	✓	15-Dec-2023	730 days	86 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 units, Micro)										
LDPE bag CFMP-24-DM-1-L	E472A	21-Sep-2023	14-Dec-2023	730 days	85 days	✓	15-Dec-2023	730 days	86 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-24-DM-3a-L	E472A	21-Sep-2023	14-Dec-2023	730 days	85 days	✓	15-Dec-2023	730 days	86 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-27-DM-11a-L	E472A	21-Sep-2023	14-Dec-2023	730 days	85 days	✓	15-Dec-2023	730 days	86 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-27-DM-2-L	E472A	21-Sep-2023	14-Dec-2023	730 days	85 days	✓	15-Dec-2023	730 days	86 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-32-RBV-11b-L	E472A	21-Sep-2023	14-Dec-2023	730 days	85 days	✓	15-Dec-2023	730 days	86 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-6-DM-2a-L	E472A	21-Sep-2023	14-Dec-2023	730 days	85 days	✓	15-Dec-2023	730 days	86 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-6-DM-8-L	E472A	21-Sep-2023	14-Dec-2023	730 days	85 days	✓	15-Dec-2023	730 days	86 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-6-RBV-4-L	E472A	21-Sep-2023	14-Dec-2023	730 days	85 days	✓	15-Dec-2023	730 days	86 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-27-DM-11-L	E472A	20-Sep-2023	14-Dec-2023	730 days	86 days	✓	15-Dec-2023	730 days	87 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 units, Micro)										
LDPE bag CFMP-27-DM-8-L	E472A	20-Sep-2023	14-Dec-2023	730 days	86 days	✓	15-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-32-RBV-11-L	E472A	20-Sep-2023	14-Dec-2023	730 days	86 days	✓	15-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-4-RBV-8-L	E472A	20-Sep-2023	14-Dec-2023	730 days	86 days	✓	15-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Micro)										
LDPE bag CFMP-6-DM-2-L	E472A	20-Sep-2023	14-Dec-2023	730 days	86 days	✓	15-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-19-DM-15-L	E440A	24-Sep-2023	15-Dec-2023	730 days	83 days	✓	16-Dec-2023	730 days	84 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-19-DM-8-L	E440A	24-Sep-2023	15-Dec-2023	730 days	83 days	✓	16-Dec-2023	730 days	84 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-24-DM-7-L	E440A	24-Sep-2023	15-Dec-2023	730 days	83 days	✓	16-Dec-2023	730 days	84 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-27-DM-14-L	E440A	24-Sep-2023	15-Dec-2023	730 days	83 days	✓	16-Dec-2023	730 days	84 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-27-DM-1-L	E440A	24-Sep-2023	15-Dec-2023	730 days	83 days	✓	16-Dec-2023	730 days	84 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*	
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-27-DM-8-L	E440A	24-Sep-2023	15-Dec-2023	730 days	83 days	✓	16-Dec-2023	730 days	84 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-40-DM-4a-L	E440A	24-Sep-2023	15-Dec-2023	730 days	83 days	✓	16-Dec-2023	730 days	84 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-24-DM-5-L	E440A	22-Sep-2023	15-Dec-2023	730 days	85 days	✓	16-Dec-2023	730 days	86 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-14-RBV-1-C	E440A	24-Sep-2023	19-Dec-2023	730 days	86 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-19-DM-13-C	E440A	24-Sep-2023	19-Dec-2023	730 days	86 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-19-DM-14-C	E440A	24-Sep-2023	19-Dec-2023	730 days	86 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-19-DM-15-C	E440A	24-Sep-2023	19-Dec-2023	730 days	86 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-19-DM-8-C	E440A	24-Sep-2023	19-Dec-2023	730 days	86 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-27-DM-14a-C	E440A	24-Sep-2023	19-Dec-2023	730 days	86 days	✓	19-Dec-2023	730 days	87 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 units, Routine)										
LDPE bag CFMP-27-DM-14-C	E440A	24-Sep-2023	19-Dec-2023	730 days	86 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-27-DM-1-C	E440A	24-Sep-2023	19-Dec-2023	730 days	86 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-32-RBV-12a-L	E440A	21-Sep-2023	15-Dec-2023	730 days	86 days	✓	16-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-24-DM-7-C	E440A	24-Sep-2023	19-Dec-2023	730 days	87 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-27-DM-15-C	E440A	24-Sep-2023	19-Dec-2023	730 days	87 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-27-DM-8-C	E440A	24-Sep-2023	19-Dec-2023	730 days	87 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-27-RBV-13-C	E440A	24-Sep-2023	19-Dec-2023	730 days	87 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-40-DM-20-C	E440A	24-Sep-2023	19-Dec-2023	730 days	87 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-40-DM-4a-C	E440A	24-Sep-2023	19-Dec-2023	730 days	87 days	✓	19-Dec-2023	730 days	87 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 units, Routine)										
LDPE bag CFMP-40-RBV-10-C	E440A	24-Sep-2023	19-Dec-2023	730 days	87 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-40-RBV-11-C	E440A	24-Sep-2023	19-Dec-2023	730 days	87 days	✓	19-Dec-2023	730 days	87 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-19-DM-12-C	E440A	23-Sep-2023	19-Dec-2023	730 days	87 days	✓	19-Dec-2023	730 days	88 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-24-DM-3-L	E440A	20-Sep-2023	15-Dec-2023	730 days	87 days	✓	16-Dec-2023	730 days	88 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-27-RBV-3-C	E440A	23-Sep-2023	19-Dec-2023	730 days	88 days	✓	19-Dec-2023	730 days	88 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-6-DM-1-C	E440A	23-Sep-2023	19-Dec-2023	730 days	88 days	✓	19-Dec-2023	730 days	88 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-6-RBV-5a-C	E440A	23-Sep-2023	19-Dec-2023	730 days	88 days	✓	19-Dec-2023	730 days	88 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-6-RBV-7-C	E440A	23-Sep-2023	19-Dec-2023	730 days	88 days	✓	19-Dec-2023	730 days	88 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-14-RBV-7-C	E440A	22-Sep-2023	19-Dec-2023	730 days	88 days	✓	19-Dec-2023	730 days	89 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 units, Routine)										
LDPE bag CFMP-24-DM-2-C	E440A	22-Sep-2023	19-Dec-2023	730 days	88 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-24-DM-5-C	E440A	22-Sep-2023	19-Dec-2023	730 days	88 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-32-RBV-11a-C	E440A	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-32-RBV-12b-C	E440A	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-32-RBV-1-C	E440A	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-32-RBV-5-C	E440A	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-32-RBV-8-C	E440A	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-32-RBV-9-C	E440A	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-40-DM-4-C	E440A	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 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 units, Routine)										
LDPE bag CFMP-40-DM-5-C	E440A	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-40-RBV-8-C	E440A	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-4-RBV-4-C	E440A	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-6-DM-3-C	E440A	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-6-DM-9-C	E440A	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-6-RBV-11-C	E440A	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-6-RBV-5-C	E440A	22-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	89 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-19-DM-5-C	E440A	21-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	90 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-24-DM-10-C	E440A	21-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	90 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 units, Routine)										
LDPE bag CFMP-24-DM-1-C	E440A	21-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	90 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-24-DM-3a-C	E440A	21-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	90 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-27-DM-11a-C	E440A	21-Sep-2023	19-Dec-2023	730 days	89 days	✓	19-Dec-2023	730 days	90 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-27-DM-2-C	E440A	21-Sep-2023	19-Dec-2023	730 days	90 days	✓	19-Dec-2023	730 days	90 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-32-RBV-11b-C	E440A	21-Sep-2023	19-Dec-2023	730 days	90 days	✓	19-Dec-2023	730 days	90 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-32-RBV-12a-C	E440A	21-Sep-2023	19-Dec-2023	730 days	90 days	✓	19-Dec-2023	730 days	90 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-4-RBV-6-C	E440A	21-Sep-2023	19-Dec-2023	730 days	90 days	✓	19-Dec-2023	730 days	90 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-6-DM-2a-C	E440A	21-Sep-2023	19-Dec-2023	730 days	90 days	✓	19-Dec-2023	730 days	90 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-6-DM-8-C	E440A	21-Sep-2023	19-Dec-2023	730 days	90 days	✓	19-Dec-2023	730 days	90 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 units, Routine)										
LDPE bag CFMP-6-RBV-4-C	E440A	21-Sep-2023	19-Dec-2023	730 days	90 days	✓	19-Dec-2023	730 days	90 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-24-DM-3-C	E440A	20-Sep-2023	19-Dec-2023	730 days	90 days	✓	19-Dec-2023	730 days	91 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-24-DM-8-C	E440A	20-Sep-2023	19-Dec-2023	730 days	90 days	✓	19-Dec-2023	730 days	91 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-27-DM-11-C	E440A	20-Sep-2023	19-Dec-2023	730 days	90 days	✓	19-Dec-2023	730 days	91 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-32-RBV-11-C	E440A	20-Sep-2023	19-Dec-2023	730 days	91 days	✓	19-Dec-2023	730 days	91 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-32-RBV-12-C	E440A	20-Sep-2023	19-Dec-2023	730 days	91 days	✓	19-Dec-2023	730 days	91 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-4-RBV-8-C	E440A	20-Sep-2023	19-Dec-2023	730 days	91 days	✓	19-Dec-2023	730 days	91 days	✓
Metals : Metals in Biota by CRC ICPMS (WET units, Routine)										
LDPE bag CFMP-6-DM-2-C	E440A	20-Sep-2023	19-Dec-2023	730 days	91 days	✓	19-Dec-2023	730 days	91 days	✓
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag CFMP-19-DM-12-L	E144A	23-Sep-2023	----	----	----		15-Dec-2023	----	84 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 : Moisture Content by Gravimetry (Biopsy)										
LDPE bag CFMP-32-RBV-11a-L	E144A	22-Sep-2023	----	----	----		14-Dec-2023	----	84 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag CFMP-32-RBV-5-L	E144A	22-Sep-2023	----	----	----		14-Dec-2023	----	84 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag CFMP-40-DM-5-L	E144A	22-Sep-2023	----	----	----		14-Dec-2023	----	84 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag CFMP-14-RBV-7-L	E144A	22-Sep-2023	----	----	----		15-Dec-2023	----	85 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag CFMP-4-RBV-4-L	E144A	22-Sep-2023	----	----	----		15-Dec-2023	----	85 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag CFMP-4-RBV-6-L	E144A	21-Sep-2023	----	----	----		14-Dec-2023	----	85 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag CFMP-6-RBV-5-L	E144A	22-Sep-2023	----	----	----		15-Dec-2023	----	85 days	
Physical Tests : Moisture Content by Gravimetry (Biopsy)										
LDPE bag CFMP-32-RBV-12-L	E144A	20-Sep-2023	----	----	----		14-Dec-2023	----	86 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-14-RBV-1-L	E144-H	24-Sep-2023	----	----	----		14-Dec-2023	----	82 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 : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-19-DM-13-L	E144-H	24-Sep-2023	----	----	----		14-Dec-2023	----	82 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-19-DM-14-L	E144-H	24-Sep-2023	----	----	----		14-Dec-2023	----	82 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-27-DM-14a-L	E144-H	24-Sep-2023	----	----	----		14-Dec-2023	----	82 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-27-DM-15-L	E144-H	24-Sep-2023	----	----	----		14-Dec-2023	----	82 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-27-RBV-13-L	E144-H	24-Sep-2023	----	----	----		14-Dec-2023	----	82 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-40-DM-20-L	E144-H	24-Sep-2023	----	----	----		14-Dec-2023	----	82 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-40-RBV-10-L	E144-H	24-Sep-2023	----	----	----		14-Dec-2023	----	82 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-40-RBV-11-L	E144-H	24-Sep-2023	----	----	----		14-Dec-2023	----	82 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-27-RBV-3-L	E144-H	23-Sep-2023	----	----	----		14-Dec-2023	----	83 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 : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-6-DM-1-L	E144-H	23-Sep-2023	----	----	----		14-Dec-2023	----	83 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-6-RBV-5a-L	E144-H	23-Sep-2023	----	----	----		14-Dec-2023	----	83 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-6-RBV-7-L	E144-H	23-Sep-2023	----	----	----		14-Dec-2023	----	83 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-24-DM-2-L	E144-H	22-Sep-2023	----	----	----		14-Dec-2023	----	84 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-32-RBV-12b-L	E144-H	22-Sep-2023	----	----	----		14-Dec-2023	----	84 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-32-RBV-1-L	E144-H	22-Sep-2023	----	----	----		14-Dec-2023	----	84 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-32-RBV-8-L	E144-H	22-Sep-2023	----	----	----		14-Dec-2023	----	84 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-32-RBV-9-L	E144-H	22-Sep-2023	----	----	----		14-Dec-2023	----	84 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-40-DM-4-L	E144-H	22-Sep-2023	----	----	----		14-Dec-2023	----	84 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 : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-40-RBV-8-L	E144-H	22-Sep-2023	----	----	----		14-Dec-2023	----	84 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-6-DM-3-L	E144-H	22-Sep-2023	----	----	----		14-Dec-2023	----	84 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-6-DM-9-L	E144-H	22-Sep-2023	----	----	----		14-Dec-2023	----	84 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-6-RBV-11-L	E144-H	22-Sep-2023	----	----	----		14-Dec-2023	----	84 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-19-DM-5-L	E144-H	21-Sep-2023	----	----	----		14-Dec-2023	----	85 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-24-DM-10-L	E144-H	21-Sep-2023	----	----	----		14-Dec-2023	----	85 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-24-DM-1-L	E144-H	21-Sep-2023	----	----	----		14-Dec-2023	----	85 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-24-DM-3a-L	E144-H	21-Sep-2023	----	----	----		14-Dec-2023	----	85 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-27-DM-11a-L	E144-H	21-Sep-2023	----	----	----		14-Dec-2023	----	85 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 : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-27-DM-2-L	E144-H	21-Sep-2023	----	----	----		14-Dec-2023	----	85 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-32-RBV-11b-L	E144-H	21-Sep-2023	----	----	----		14-Dec-2023	----	85 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-6-DM-2a-L	E144-H	21-Sep-2023	----	----	----		14-Dec-2023	----	85 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-6-DM-8-L	E144-H	21-Sep-2023	----	----	----		14-Dec-2023	----	85 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-6-RBV-4-L	E144-H	21-Sep-2023	----	----	----		14-Dec-2023	----	85 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-27-DM-11-L	E144-H	20-Sep-2023	----	----	----		14-Dec-2023	----	86 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-27-DM-8-L	E144-H	20-Sep-2023	----	----	----		14-Dec-2023	----	86 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-32-RBV-11-L	E144-H	20-Sep-2023	----	----	----		14-Dec-2023	----	86 days	
Physical Tests : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-4-RBV-8-L	E144-H	20-Sep-2023	----	----	----		14-Dec-2023	----	86 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 : Moisture Content by Gravimetry (Micro)										
LDPE bag CFMP-6-DM-2-L	E144-H	20-Sep-2023	----	----	----		14-Dec-2023	----	86 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-19-DM-15-L	E144	24-Sep-2023	----	----	----		16-Dec-2023	----	83 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-19-DM-8-L	E144	24-Sep-2023	----	----	----		16-Dec-2023	----	83 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-24-DM-7-L	E144	24-Sep-2023	----	----	----		16-Dec-2023	----	83 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-27-DM-14-L	E144	24-Sep-2023	----	----	----		16-Dec-2023	----	83 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-27-DM-1-L	E144	24-Sep-2023	----	----	----		16-Dec-2023	----	83 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-27-DM-8-L	E144	24-Sep-2023	----	----	----		16-Dec-2023	----	83 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-40-DM-4a-L	E144	24-Sep-2023	----	----	----		16-Dec-2023	----	83 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-24-DM-5-L	E144	22-Sep-2023	----	----	----		16-Dec-2023	----	85 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 : Moisture Content by Gravimetry										
LDPE bag CFMP-14-RBV-1-C	E144	24-Sep-2023	----	----	----		18-Dec-2023	----	86 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-19-DM-13-C	E144	24-Sep-2023	----	----	----		18-Dec-2023	----	86 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-19-DM-14-C	E144	24-Sep-2023	----	----	----		18-Dec-2023	----	86 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-19-DM-15-C	E144	24-Sep-2023	----	----	----		18-Dec-2023	----	86 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-19-DM-8-C	E144	24-Sep-2023	----	----	----		18-Dec-2023	----	86 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-24-DM-7-C	E144	24-Sep-2023	----	----	----		18-Dec-2023	----	86 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-27-DM-14a-C	E144	24-Sep-2023	----	----	----		18-Dec-2023	----	86 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-27-DM-14-C	E144	24-Sep-2023	----	----	----		18-Dec-2023	----	86 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-27-DM-15-C	E144	24-Sep-2023	----	----	----		18-Dec-2023	----	86 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 : Moisture Content by Gravimetry										
LDPE bag CFMP-27-DM-1-C	E144	24-Sep-2023	----	----	----		18-Dec-2023	----	86 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-27-DM-8-C	E144	24-Sep-2023	----	----	----		18-Dec-2023	----	86 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-27-RBV-13-C	E144	24-Sep-2023	----	----	----		18-Dec-2023	----	86 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-32-RBV-12a-L	E144	21-Sep-2023	----	----	----		16-Dec-2023	----	86 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-40-DM-20-C	E144	24-Sep-2023	----	----	----		18-Dec-2023	----	86 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-40-DM-4a-C	E144	24-Sep-2023	----	----	----		18-Dec-2023	----	86 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-40-RBV-10-C	E144	24-Sep-2023	----	----	----		18-Dec-2023	----	86 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-40-RBV-11-C	E144	24-Sep-2023	----	----	----		18-Dec-2023	----	86 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-19-DM-12-C	E144	23-Sep-2023	----	----	----		18-Dec-2023	----	87 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 : Moisture Content by Gravimetry										
LDPE bag CFMP-24-DM-3-L	E144	20-Sep-2023	----	----	----		16-Dec-2023	----	87 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-27-RBV-3-C	E144	23-Sep-2023	----	----	----		18-Dec-2023	----	87 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-6-DM-1-C	E144	23-Sep-2023	----	----	----		18-Dec-2023	----	87 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-6-RBV-5a-C	E144	23-Sep-2023	----	----	----		18-Dec-2023	----	87 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-6-RBV-7-C	E144	23-Sep-2023	----	----	----		18-Dec-2023	----	87 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-14-RBV-7-C	E144	22-Sep-2023	----	----	----		18-Dec-2023	----	88 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-24-DM-2-C	E144	22-Sep-2023	----	----	----		18-Dec-2023	----	88 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-24-DM-5-C	E144	22-Sep-2023	----	----	----		18-Dec-2023	----	88 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-32-RBV-11a-C	E144	22-Sep-2023	----	----	----		18-Dec-2023	----	88 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 : Moisture Content by Gravimetry										
LDPE bag CFMP-32-RBV-12b-C	E144	22-Sep-2023	----	----	----		18-Dec-2023	----	88 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-32-RBV-1-C	E144	22-Sep-2023	----	----	----		18-Dec-2023	----	88 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-32-RBV-5-C	E144	22-Sep-2023	----	----	----		18-Dec-2023	----	88 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-32-RBV-8-C	E144	22-Sep-2023	----	----	----		18-Dec-2023	----	88 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-32-RBV-9-C	E144	22-Sep-2023	----	----	----		18-Dec-2023	----	88 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-40-DM-4-C	E144	22-Sep-2023	----	----	----		18-Dec-2023	----	88 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-40-DM-5-C	E144	22-Sep-2023	----	----	----		18-Dec-2023	----	88 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-40-RBV-8-C	E144	22-Sep-2023	----	----	----		18-Dec-2023	----	88 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-4-RBV-4-C	E144	22-Sep-2023	----	----	----		18-Dec-2023	----	88 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 : Moisture Content by Gravimetry										
LDPE bag CFMP-6-DM-3-C	E144	22-Sep-2023	----	----	----		18-Dec-2023	----	88 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-6-DM-9-C	E144	22-Sep-2023	----	----	----		18-Dec-2023	----	88 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-6-RBV-11-C	E144	22-Sep-2023	----	----	----		18-Dec-2023	----	88 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-6-RBV-5-C	E144	22-Sep-2023	----	----	----		18-Dec-2023	----	88 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-19-DM-5-C	E144	21-Sep-2023	----	----	----		18-Dec-2023	----	89 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-24-DM-10-C	E144	21-Sep-2023	----	----	----		18-Dec-2023	----	89 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-24-DM-1-C	E144	21-Sep-2023	----	----	----		18-Dec-2023	----	89 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-24-DM-3a-C	E144	21-Sep-2023	----	----	----		18-Dec-2023	----	89 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-27-DM-11a-C	E144	21-Sep-2023	----	----	----		18-Dec-2023	----	89 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 : Moisture Content by Gravimetry										
LDPE bag CFMP-27-DM-2-C	E144	21-Sep-2023	----	----	----		18-Dec-2023	----	89 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-32-RBV-11b-C	E144	21-Sep-2023	----	----	----		18-Dec-2023	----	89 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-32-RBV-12a-C	E144	21-Sep-2023	----	----	----		18-Dec-2023	----	89 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-4-RBV-6-C	E144	21-Sep-2023	----	----	----		18-Dec-2023	----	89 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-6-DM-2a-C	E144	21-Sep-2023	----	----	----		18-Dec-2023	----	89 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-6-DM-8-C	E144	21-Sep-2023	----	----	----		18-Dec-2023	----	89 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-6-RBV-4-C	E144	21-Sep-2023	----	----	----		18-Dec-2023	----	89 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-24-DM-3-C	E144	20-Sep-2023	----	----	----		18-Dec-2023	----	90 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-24-DM-8-C	E144	20-Sep-2023	----	----	----		18-Dec-2023	----	90 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 : Moisture Content by Gravimetry										
LDPE bag CFMP-27-DM-11-C	E144	20-Sep-2023	----	----	----		18-Dec-2023	----	90 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-32-RBV-11-C	E144	20-Sep-2023	----	----	----		18-Dec-2023	----	90 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-32-RBV-12-C	E144	20-Sep-2023	----	----	----		18-Dec-2023	----	90 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-4-RBV-8-C	E144	20-Sep-2023	----	----	----		18-Dec-2023	----	90 days	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag CFMP-6-DM-2-C	E144	20-Sep-2023	----	----	----		18-Dec-2023	----	90 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)							
Mercury in Biota by CVAAS (DRY units, Micro)	E511	1276741	2	38	5.2	5.0	✓
Mercury in Biota by CVAAS (DRY units, Routine)	E510	1276780	3	67	4.4	5.0	✗
Mercury in Biota by CVAAS (WET units, Micro)	E511A	1276742	2	38	5.2	5.0	✓
Mercury in Biota by CVAAS (WET units, Routine)	E510A	1276779	3	67	4.4	5.0	✗
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	1276743	2	38	5.2	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	1276782	3	67	4.4	5.0	✗
Metals in Biota by CRC ICPMS (WET units, Micro)	E472A	1276740	2	38	5.2	5.0	✓
Metals in Biota by CRC ICPMS (WET units, Routine)	E440A	1276781	3	67	4.4	5.0	✗
Moisture Content by Gravimetry	E144	1279682	0	67	0.0	5.0	✗
Moisture Content by Gravimetry (Micro)	E144-H	1277264	1	38	2.6	5.0	✗
Laboratory Control Samples (LCS)							
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512	1276864	4	9	44.4	10.0	✓
Mercury in Biota by CVAAS (DRY units, Micro)	E511	1276741	6	38	15.7	10.0	✓
Mercury in Biota by CVAAS (DRY units, Routine)	E510	1276780	8	67	11.9	10.0	✓
Mercury in Biota by CVAAS (WET units, Biopsy)	E512A	1276865	4	9	44.4	10.0	✓
Mercury in Biota by CVAAS (WET units, Micro)	E511A	1276742	6	38	15.7	10.0	✓
Mercury in Biota by CVAAS (WET units, Routine)	E510A	1276779	8	67	11.9	10.0	✓
Metals by CRC ICPMS (DRY units, Biopsy)	E475	1276867	4	9	44.4	10.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	1276743	6	38	15.7	10.0	✓
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	1276782	8	67	11.9	10.0	✓
Metals in Biota by CRC ICPMS (WET units, Biopsy)	E475A	1276866	4	9	44.4	10.0	✓
Metals in Biota by CRC ICPMS (WET units, Micro)	E472A	1276740	6	38	15.7	10.0	✓
Metals in Biota by CRC ICPMS (WET units, Routine)	E440A	1276781	8	67	11.9	10.0	✓
Moisture Content by Gravimetry	E144	1279682	4	67	5.9	5.0	✓
Moisture Content by Gravimetry (Biopsy)	E144A	1277613	2	9	22.2	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	1277264	3	38	7.8	5.0	✓
Method Blanks (MB)							
Mercury in Biota by CVAAS (DRY units, Biopsy)	E512	1276864	2	9	22.2	5.0	✓
Mercury in Biota by CVAAS (DRY units, Micro)	E511	1276741	3	38	7.8	5.0	✓
Mercury in Biota by CVAAS (DRY units, Routine)	E510	1276780	4	67	5.9	5.0	✓
Mercury in Biota by CVAAS (WET units, Biopsy)	E512A	1276865	2	9	22.2	5.0	✓
Mercury in Biota by CVAAS (WET units, Micro)	E511A	1276742	3	38	7.8	5.0	✓
Mercury in Biota by CVAAS (WET units, Routine)	E510A	1276779	4	67	5.9	5.0	✓
Metals by CRC ICPMS (DRY units, Biopsy)	E475	1276867	2	9	22.2	5.0	✓
Metals in Biota by CRC ICPMS (DRY units, Micro)	E472	1276743	3	38	7.8	5.0	✓

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*
Method Blanks (MB) - Continued							
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440	1276782	4	67	5.9	5.0	✓
Metals in Biota by CRC ICPMS (WET units, Biopsy)	E475A	1276866	2	9	22.2	5.0	✓
Metals in Biota by CRC ICPMS (WET units, Micro)	E472A	1276740	3	38	7.8	5.0	✓
Metals in Biota by CRC ICPMS (WET units, Routine)	E440A	1276781	4	67	5.9	5.0	✓
Moisture Content by Gravimetry	E144	1279682	4	67	5.9	5.0	✓
Moisture Content by Gravimetry (Biopsy)	E144A	1277613	2	9	22.2	5.0	✓
Moisture Content by Gravimetry (Micro)	E144-H	1277264	3	38	7.8	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
Moisture Content by Gravimetry	E144 ALS Environmental - Vancouver	Biota	Puget Sound Water Quality Authority/CCME PHC in Soil - Tier 1	Moisture is measured gravimetrically by drying the sample at 105°C. 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 (Biopsy)	E144A ALS Environmental - Vancouver	Biota	Puget Sound Water Quality Authority/CCME PHC in Soil - Tier 1	This analysis is carried out gravimetrically by drying the sample at < 60 deg. C for a minimum of three days.
Moisture Content by Gravimetry (Micro)	E144-H ALS Environmental - Vancouver	Biota	Puget Sound Water Quality Authority/BC MOE Lab Manual	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 soil, expressed as a percentage.
Metals in Biota by CRC ICPMS (DRY units, Routine)	E440 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 units, Routine)	E440A 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 (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 units, 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.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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 units, 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.
Mercury in Biota by CVAAS (DRY units, Routine)	E510 ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with HNO_3, HCl, and H_2O_2. Analysis is by CVAAS.
Mercury in Biota by CVAAS (WET units, Routine)	E510A ALS Environmental - Vancouver	Biota	EPA 200.3/1631 Appendix (mod)	Samples are homogenized and sub-sampled prior to hotblock digestion with HNO_3, HCl, and H_2O_2. Analysis is by CVAAS.
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 units, 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 units, 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.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Metals and Mercury Biota Digestion	EP440 ALS Environmental - Vancouver	Biota	EPA 200.3	This method uses a heated strong acid digestion with HNO_3, HCl, and H_2O_2 and is intended to provide a conservative estimate of bio-available metals.

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.

ALS Canada Ltd.

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QUALITY CONTROL REPORT

Work Order	: **VA23C4435**	Page	: 1 of 68
Client	: ERM Consultants Canada Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Kimberly San	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 12-Oct-2023 08:50
PO	: 12970	Date Analysis Commenced	: 14-Dec-2023
C-O-C number	: ----	Issue Date	: 20-Dec-2023 14:29
Sampler	: SS ----		
Site	: ----		
Quote number	: VA23-BWGL100-005		
No. of samples received	: 114		
No. of samples analysed	: 114		

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*
Alex Thornton	Analyst	Vancouver Metals, Burnaby, British Columbia
Ghazaleh Khanmirzaei	Analsyt	Vancouver Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia
Kinny Wu	Lab Analyst	Vancouver Metals, Burnaby, British Columbia
Maria Larrotta	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Owen Cheng		Vancouver Metals, Burnaby, British Columbia
Ragini Saini	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Salimah Khimani	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
Sam Silveira	Lab Assistant	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: **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: 1277614)											
VA23C4435-100	CFMP-6-DM-9-L	Moisture	----	E144-H	2.0	%	66.4	66.4	0.00%	20%	----
Metals (QC Lot: 1276740)											
VA23C4435-100	CFMP-6-DM-9-L	Aluminum	7429-90-5	E472A	1.0	mg/kg wwt	<1.0	<1.0	0	Diff <2x LOR	----
		Antimony	7440-36-0	E472A	0.0020	mg/kg wwt	<0.0020	# 0.0098	0.0078	Diff <2x LOR	DUP-H
		Arsenic	7440-38-2	E472A	0.0060	mg/kg wwt	0.0082	0.0198	0.0116	Diff <2x LOR	----
		Barium	7440-39-3	E472A	0.010	mg/kg wwt	<0.010	<0.010	0	Diff <2x LOR	----
		Beryllium	7440-41-7	E472A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E472A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Boron	7440-42-8	E472A	0.20	mg/kg wwt	<0.20	<0.20	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E472A	0.0020	mg/kg wwt	0.0243	0.0214	12.6%	40%	----
		Calcium	7440-70-2	E472A	4.0	mg/kg wwt	57.3	50.2	13.2%	60%	----
		Cesium	7440-46-2	E472A	0.0010	mg/kg wwt	0.456	0.438	4.06%	40%	----
		Chromium	7440-47-3	E472A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E472A	0.0040	mg/kg wwt	0.0537	0.0496	7.88%	40%	----
		Copper	7440-50-8	E472A	0.040	mg/kg wwt	6.48	6.15	5.25%	40%	----
		Iron	7439-89-6	E472A	1.0	mg/kg wwt	98.8	96.8	2.03%	40%	----
		Lead	7439-92-1	E472A	0.010	mg/kg wwt	<0.010	<0.010	0	Diff <2x LOR	----
		Lithium	7439-93-2	E472A	0.10	mg/kg wwt	<0.10	<0.10	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E472A	0.40	mg/kg wwt	290	267	8.48%	40%	----
		Manganese	7439-96-5	E472A	0.010	mg/kg wwt	2.62	2.51	4.53%	40%	----
		Molybdenum	7439-98-7	E472A	0.0080	mg/kg wwt	1.78	1.70	4.60%	40%	----
		Nickel	7440-02-0	E472A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E472A	2.0	mg/kg wwt	4880	4490	8.34%	40%	----
		Potassium	7440-09-7	E472A	4.0	mg/kg wwt	3680	3390	8.10%	40%	----
		Rubidium	7440-17-7	E472A	0.010	mg/kg wwt	36.6	35.4	3.48%	40%	----
		Selenium	7782-49-2	E472A	0.020	mg/kg wwt	0.456	0.435	4.65%	40%	----
		Sodium	7440-23-5	E472A	4.0	mg/kg wwt	1340	1270	5.21%	40%	----
		Strontium	7440-24-6	E472A	0.020	mg/kg wwt	0.027	0.027	0.0005	Diff <2x LOR	----
		Tellurium	13494-80-9	E472A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Thallium	7440-28-0	E472A	0.00040	mg/kg wwt	0.00340	0.00312	8.73%	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: 1276740) - continued											
VA23C4435-100	CFMP-6-DM-9-L	Tin	7440-31-5	E472A	0.020	mg/kg wwt	<0.020	<0.020	0	Diff <2x LOR	----
		Uranium	7440-61-1	E472A	0.00040	mg/kg wwt	<0.00040	<0.00040	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E472A	0.020	mg/kg wwt	<0.020	<0.020	0	Diff <2x LOR	----
		Zinc	7440-66-6	E472A	0.20	mg/kg wwt	30.5	29.3	3.86%	40%	----
		Zirconium	7440-67-7	E472A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
Metals (QC Lot: 1276741)											
VA23C4435-100	CFMP-6-DM-9-L	Mercury	7439-97-6	E511	0.0050	mg/kg	0.0189	0.0193	0.0004	Diff <2x LOR	----
Metals (QC Lot: 1276742)											
VA23C4435-100	CFMP-6-DM-9-L	Mercury	7439-97-6	E511A	0.0013	mg/kg wwt	0.0063	0.0065	0.0002	Diff <2x LOR	----
Metals (QC Lot: 1276743)											
VA23C4435-100	CFMP-6-DM-9-L	Aluminum	7429-90-5	E472	5.0	mg/kg	<5.0	<5.0	0	Diff <2x LOR	----
		Antimony	7440-36-0	E472	0.010	mg/kg	<0.010	0.029	0.019	Diff <2x LOR	----
		Arsenic	7440-38-2	E472	0.030	mg/kg	<0.030	0.059	0.029	Diff <2x LOR	----
		Barium	7440-39-3	E472	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Beryllium	7440-41-7	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E472	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E472	0.010	mg/kg	0.072	0.064	12.6%	40%	----
		Calcium	7440-70-2	E472	20	mg/kg	171	149	13.2%	60%	----
		Cesium	7440-46-2	E472	0.0050	mg/kg	1.36	1.30	4.06%	40%	----
		Chromium	7440-47-3	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E472	0.020	mg/kg	0.160	0.148	7.88%	40%	----
		Copper	7440-50-8	E472	0.20	mg/kg	19.3	18.3	5.25%	40%	----
		Iron	7439-89-6	E472	5.0	mg/kg	294	288	2.03%	40%	----
		Lead	7439-92-1	E472	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Lithium	7439-93-2	E472	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E472	2.0	mg/kg	865	795	8.48%	40%	----
		Manganese	7439-96-5	E472	0.050	mg/kg	7.82	7.47	4.53%	40%	----
		Molybdenum	7439-98-7	E472	0.040	mg/kg	5.29	5.05	4.60%	40%	----
		Nickel	7440-02-0	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E472	10	mg/kg	14500	13400	8.34%	40%	----
		Potassium	7440-09-7	E472	20	mg/kg	11000	10100	8.10%	40%	----
		Rubidium	7440-17-7	E472	0.050	mg/kg	109	105	3.48%	40%	----
		Selenium	7782-49-2	E472	0.10	mg/kg	1.36	1.30	4.65%	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: 1276743) - continued											
VA23C4435-100	CFMP-6-DM-9-L	Sodium	7440-23-5	E472	20	mg/kg	3980	3780	5.21%	40%	----
		Strontium	7440-24-6	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Tellurium	13494-80-9	E472	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E472	0.0020	mg/kg	0.0101	0.0093	0.0008	Diff <2x LOR	----
		Tin	7440-31-5	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Uranium	7440-61-1	E472	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Zinc	7440-66-6	E472	1.0	mg/kg	90.8	87.4	3.86%	40%	----
		Zirconium	7440-67-7	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 1276890)											
VA23C4435-008	CFMP-19-DM-13-L	Aluminum	7429-90-5	E472A	1.0	mg/kg wwt	<1.0	<1.0	0	Diff <2x LOR	----
		Antimony	7440-36-0	E472A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E472A	0.0060	mg/kg wwt	0.0088	0.0080	0.0008	Diff <2x LOR	----
		Barium	7440-39-3	E472A	0.010	mg/kg wwt	<0.010	0.011	0.0009	Diff <2x LOR	----
		Beryllium	7440-41-7	E472A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E472A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Boron	7440-42-8	E472A	0.20	mg/kg wwt	<0.20	<0.20	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E472A	0.0020	mg/kg wwt	0.0080	0.0076	0.0004	Diff <2x LOR	----
		Calcium	7440-70-2	E472A	4.0	mg/kg wwt	45.0	45.0	0.141%	60%	----
		Cesium	7440-46-2	E472A	0.0010	mg/kg wwt	0.172	0.161	6.28%	40%	----
		Chromium	7440-47-3	E472A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E472A	0.0040	mg/kg wwt	0.0431	0.0414	3.93%	40%	----
		Copper	7440-50-8	E472A	0.040	mg/kg wwt	7.19	6.83	5.20%	40%	----
		Iron	7439-89-6	E472A	1.0	mg/kg wwt	132	123	7.08%	40%	----
		Lead	7439-92-1	E472A	0.010	mg/kg wwt	<0.010	<0.010	0	Diff <2x LOR	----
		Lithium	7439-93-2	E472A	0.10	mg/kg wwt	<0.10	<0.10	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E472A	0.40	mg/kg wwt	231	219	5.14%	40%	----
		Manganese	7439-96-5	E472A	0.010	mg/kg wwt	5.18	4.98	4.10%	40%	----
		Molybdenum	7439-98-7	E472A	0.0080	mg/kg wwt	1.88	1.76	6.11%	40%	----
		Nickel	7440-02-0	E472A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
		Phosphorus	7723-14-0	E472A	2.0	mg/kg wwt	3830	3580	6.86%	40%	----
		Potassium	7440-09-7	E472A	4.0	mg/kg wwt	3160	2990	5.46%	40%	----
		Rubidium	7440-17-7	E472A	0.010	mg/kg wwt	14.5	13.6	6.27%	40%	----
		Selenium	7782-49-2	E472A	0.020	mg/kg wwt	1.46	1.34	8.85%	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: 1276890) - continued											
VA23C4435-008	CFMP-19-DM-13-L	Sodium	7440-23-5	E472A	4.0	mg/kg wwt	1190	1120	6.34%	40%	----
		Strontium	7440-24-6	E472A	0.020	mg/kg wwt	0.028	0.028	0.0006	Diff <2x LOR	----
		Tellurium	13494-80-9	E472A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Thallium	7440-28-0	E472A	0.00040	mg/kg wwt	0.00068	0.00060	0.00008	Diff <2x LOR	----
		Tin	7440-31-5	E472A	0.020	mg/kg wwt	<0.020	<0.020	0	Diff <2x LOR	----
		Uranium	7440-61-1	E472A	0.00040	mg/kg wwt	<0.00040	<0.00040	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E472A	0.020	mg/kg wwt	<0.020	<0.020	0	Diff <2x LOR	----
		Zinc	7440-66-6	E472A	0.20	mg/kg wwt	26.3	24.8	5.68%	40%	----
		Zirconium	7440-67-7	E472A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
Metals (QC Lot: 1276891)											
VA23C4435-008	CFMP-19-DM-13-L	Mercury	7439-97-6	E511	0.0050	mg/kg	0.0178	0.0176	0.0001	Diff <2x LOR	----
Metals (QC Lot: 1276892)											
VA23C4435-008	CFMP-19-DM-13-L	Mercury	7439-97-6	E511A	0.0015	mg/kg wwt	0.0056	0.0055	0.00004	Diff <2x LOR	----
Metals (QC Lot: 1276893)											
VA23C4435-008	CFMP-19-DM-13-L	Aluminum	7429-90-5	E472	5.0	mg/kg	<5.0	<5.0	0	Diff <2x LOR	----
		Antimony	7440-36-0	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E472	0.030	mg/kg	<0.030	<0.030	0	Diff <2x LOR	----
		Barium	7440-39-3	E472	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Beryllium	7440-41-7	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E472	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E472	1.0	mg/kg	<1.0	<1.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E472	0.010	mg/kg	0.026	0.024	0.001	Diff <2x LOR	----
		Calcium	7440-70-2	E472	20	mg/kg	143	143	0.141%	60%	----
		Cesium	7440-46-2	E472	0.0050	mg/kg	0.546	0.512	6.28%	40%	----
		Chromium	7440-47-3	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Cobalt	7440-48-4	E472	0.020	mg/kg	0.137	0.132	3.93%	40%	----
		Copper	7440-50-8	E472	0.20	mg/kg	22.8	21.7	5.20%	40%	----
		Iron	7439-89-6	E472	5.0	mg/kg	418	390	7.08%	40%	----
		Lead	7439-92-1	E472	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		Lithium	7439-93-2	E472	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E472	2.0	mg/kg	734	697	5.14%	40%	----
		Manganese	7439-96-5	E472	0.050	mg/kg	16.5	15.8	4.10%	40%	----
		Molybdenum	7439-98-7	E472	0.040	mg/kg	5.96	5.61	6.11%	40%	----
		Nickel	7440-02-0	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----

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: 1276893) - continued											
VA23C4435-008	CFMP-19-DM-13-L	Phosphorus	7723-14-0	E472	10	mg/kg	12200	11400	6.86%	40%	----
		Potassium	7440-09-7	E472	20	mg/kg	10000	9510	5.46%	40%	----
		Rubidium	7440-17-7	E472	0.050	mg/kg	46.0	43.2	6.27%	40%	----
		Selenium	7782-49-2	E472	0.10	mg/kg	4.64	4.24	8.85%	40%	----
		Sodium	7440-23-5	E472	20	mg/kg	3780	3540	6.34%	40%	----
		Strontium	7440-24-6	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Tellurium	13494-80-9	E472	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E472	0.0020	mg/kg	0.0022	<0.0020	0.0002	Diff <2x LOR	----
		Tin	7440-31-5	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Uranium	7440-61-1	E472	0.0020	mg/kg	<0.0020	<0.0020	0	Diff <2x LOR	----
		Vanadium	7440-62-2	E472	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Zinc	7440-66-6	E472	1.0	mg/kg	83.4	78.8	5.68%	40%	----
		Zirconium	7440-67-7	E472	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 1281482)											
VA23C4435-001	CFMP-14-RBV-1-C	Mercury	7439-97-6	E510A	0.0010	mg/kg wwt	0.131	0.130	1.12%	40%	----
Metals (QC Lot: 1281483)											
VA23C4435-001	CFMP-14-RBV-1-C	Aluminum	7429-90-5	E440A	0.40	mg/kg wwt	24.9	26.1	4.74%	40%	----
		Antimony	7440-36-0	E440A	0.0020	mg/kg wwt	0.0420	0.0402	4.21%	40%	----
		Arsenic	7440-38-2	E440A	0.0040	mg/kg wwt	0.0213	0.0221	3.67%	40%	----
		Barium	7440-39-3	E440A	0.010	mg/kg wwt	4.51	4.09	9.90%	40%	----
		Beryllium	7440-41-7	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440A	0.0020	mg/kg wwt	0.0038	0.0043	0.0005	Diff <2x LOR	----
		Boron	7440-42-8	E440A	0.20	mg/kg wwt	0.59	0.61	0.02	Diff <2x LOR	----
		Cadmium	7440-43-9	E440A	0.0010	mg/kg wwt	0.0287	0.0311	8.08%	40%	----
		Calcium	7440-70-2	E440A	4.0	mg/kg wwt	8430	7320	14.2%	60%	----
		Cesium	7440-46-2	E440A	0.0010	mg/kg wwt	0.411	0.416	1.18%	40%	----
		Chromium	7440-47-3	E440A	0.010	mg/kg wwt	0.264	0.290	9.42%	40%	----
		Cobalt	7440-48-4	E440A	0.0040	mg/kg wwt	0.0555	0.0587	5.53%	40%	----
		Copper	7440-50-8	E440A	0.020	mg/kg wwt	2.84	2.94	3.55%	40%	----
		Iron	7439-89-6	E440A	0.60	mg/kg wwt	90.2	88.2	2.24%	40%	----
		Lead	7439-92-1	E440A	0.0040	mg/kg wwt	0.0515	0.0499	3.18%	40%	----
		Lithium	7439-93-2	E440A	0.10	mg/kg wwt	<0.10	<0.10	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440A	0.40	mg/kg wwt	459	451	1.75%	40%	----
		Manganese	7439-96-5	E440A	0.010	mg/kg wwt	10.6	10.6	0.324%	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: 1281483) - continued											
VA23C4435-001	CFMP-14-RBV-1-C	Molybdenum	7439-98-7	E440A	0.0040	mg/kg wwt	0.153	0.153	0.175%	40%	----
		Nickel	7440-02-0	E440A	0.040	mg/kg wwt	0.233	0.251	7.22%	40%	----
		Phosphorus	7723-14-0	E440A	2.0	mg/kg wwt	7350	6810	7.64%	40%	----
		Potassium	7440-09-7	E440A	4.0	mg/kg wwt	3420	3520	3.06%	40%	----
		Rubidium	7440-17-7	E440A	0.010	mg/kg wwt	11.6	11.9	2.70%	40%	----
		Selenium	7782-49-2	E440A	0.010	mg/kg wwt	0.269	0.266	1.08%	40%	----
		Sodium	7440-23-5	E440A	4.0	mg/kg wwt	1480	1460	0.881%	40%	----
		Strontium	7440-24-6	E440A	0.010	mg/kg wwt	10.5	8.86	17.1%	60%	----
		Tellurium	13494-80-9	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440A	0.00040	mg/kg wwt	0.00296	0.00299	0.838%	40%	----
		Tin	7440-31-5	E440A	0.020	mg/kg wwt	<0.020	<0.020	0	Diff <2x LOR	----
		Uranium	7440-61-1	E440A	0.00040	mg/kg wwt	0.00421	0.00425	0.761%	40%	----
		Vanadium	7440-62-2	E440A	0.020	mg/kg wwt	0.028	0.030	0.002	Diff <2x LOR	----
		Zinc	7440-66-6	E440A	0.10	mg/kg wwt	28.8	28.8	0.257%	40%	----
		Zirconium	7440-67-7	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
Metals (QC Lot: 1281484)											
VA23C4435-001	CFMP-14-RBV-1-C	Aluminum	7429-90-5	E440	2.0	mg/kg	85.8	90.0	4.74%	40%	----
		Antimony	7440-36-0	E440	0.010	mg/kg	0.144	0.138	4.21%	40%	----
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.073	0.076	0.003	Diff <2x LOR	----
		Barium	7440-39-3	E440	0.050	mg/kg	15.5	14.1	9.90%	40%	----
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.010	mg/kg	0.013	0.015	0.002	Diff <2x LOR	----
		Boron	7440-42-8	E440	1.0	mg/kg	2.0	2.1	0.06	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.0050	mg/kg	0.0986	0.107	8.08%	40%	----
		Calcium	7440-70-2	E440	20	mg/kg	29000	25200	14.2%	60%	----
		Cesium	7440-46-2	E440	0.0050	mg/kg	1.42	1.43	1.18%	40%	----
		Chromium	7440-47-3	E440	0.050	mg/kg	0.908	0.998	9.42%	40%	----
		Cobalt	7440-48-4	E440	0.020	mg/kg	0.191	0.202	5.53%	40%	----
		Copper	7440-50-8	E440	0.10	mg/kg	9.77	10.1	3.55%	40%	----
		Iron	7439-89-6	E440	3.0	mg/kg	310	304	2.24%	40%	----
		Lead	7439-92-1	E440	0.020	mg/kg	0.177	0.172	3.18%	40%	----
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	2.0	mg/kg	1580	1550	1.75%	40%	----
		Manganese	7439-96-5	E440	0.050	mg/kg	36.5	36.6	0.324%	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: 1281484) - continued											
VA23C4435-001	CFMP-14-RBV-1-C	Molybdenum	7439-98-7	E440	0.020	mg/kg	0.526	0.527	0.175%	40%	----
		Nickel	7440-02-0	E440	0.20	mg/kg	0.80	0.86	0.06	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440	10	mg/kg	25300	23400	7.64%	40%	----
		Potassium	7440-09-7	E440	20	mg/kg	11800	12100	3.06%	40%	----
		Rubidium	7440-17-7	E440	0.050	mg/kg	39.9	41.0	2.70%	40%	----
		Selenium	7782-49-2	E440	0.050	mg/kg	0.925	0.916	1.08%	40%	----
		Sodium	7440-23-5	E440	20	mg/kg	5090	5040	0.881%	40%	----
		Strontium	7440-24-6	E440	0.050	mg/kg	36.2	30.5	17.1%	60%	----
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.0020	mg/kg	0.0102	0.0103	0.838%	40%	----
		Tin	7440-31-5	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.0020	mg/kg	0.0145	0.0146	0.761%	40%	----
		Vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	0.10	0.002	Diff <2x LOR	----
		Zinc	7440-66-6	E440	0.50	mg/kg	99.0	99.3	0.257%	40%	----
		Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 1281485)											
VA23C4435-001	CFMP-14-RBV-1-C	Mercury	7439-97-6	E510	0.0050	mg/kg	0.452	0.447	1.12%	40%	----
Metals (QC Lot: 1281487)											
VA23C4435-041	CFMP-27-DM-15-C	Mercury	7439-97-6	E510A	0.0010	mg/kg wwt	0.0081	0.0084	3.24%	40%	----
Metals (QC Lot: 1281488)											
VA23C4435-041	CFMP-27-DM-15-C	Mercury	7439-97-6	E510	0.0050	mg/kg	0.0241	0.0249	0.0008	Diff <2x LOR	----
Metals (QC Lot: 1281489)											
VA23C4435-041	CFMP-27-DM-15-C	Aluminum	7429-90-5	E440A	0.40	mg/kg wwt	40.4	43.9	8.25%	40%	----
		Antimony	7440-36-0	E440A	0.0020	mg/kg wwt	0.0031	0.0036	0.0005	Diff <2x LOR	----
		Arsenic	7440-38-2	E440A	0.0040	mg/kg wwt	0.0146	0.0166	0.0020	Diff <2x LOR	----
		Barium	7440-39-3	E440A	0.010	mg/kg wwt	6.94	8.27	17.4%	40%	----
		Beryllium	7440-41-7	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Boron	7440-42-8	E440A	0.20	mg/kg wwt	0.91	0.85	0.06	Diff <2x LOR	----
		Cadmium	7440-43-9	E440A	0.0010	mg/kg wwt	0.0126	0.0125	0.598%	40%	----
		Calcium	7440-70-2	E440A	4.0	mg/kg wwt	7650	9570	22.3%	60%	----
		Cesium	7440-46-2	E440A	0.0010	mg/kg wwt	0.0399	0.0402	0.903%	40%	----
		Chromium	7440-47-3	E440A	0.010	mg/kg wwt	0.104	0.114	9.01%	40%	----
		Cobalt	7440-48-4	E440A	0.0040	mg/kg wwt	0.0281	0.0312	10.7%	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: 1281489) - continued											
VA23C4435-041	CFMP-27-DM-15-C	Copper	7440-50-8	E440A	0.020	mg/kg wwt	3.30	3.46	4.79%	40%	----
		Iron	7439-89-6	E440A	0.60	mg/kg wwt	85.6	97.8	13.2%	40%	----
		Lead	7439-92-1	E440A	0.0040	mg/kg wwt	0.0885	0.0923	4.15%	40%	----
		Lithium	7439-93-2	E440A	0.10	mg/kg wwt	<0.10	<0.10	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440A	0.40	mg/kg wwt	393	430	9.14%	40%	----
		Manganese	7439-96-5	E440A	0.010	mg/kg wwt	5.34	5.56	4.02%	40%	----
		Molybdenum	7439-98-7	E440A	0.0040	mg/kg wwt	0.219	0.225	2.73%	40%	----
		Nickel	7440-02-0	E440A	0.040	mg/kg wwt	0.132	0.177	0.045	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440A	2.0	mg/kg wwt	6290	7450	16.9%	40%	----
		Potassium	7440-09-7	E440A	4.0	mg/kg wwt	2790	2810	0.644%	40%	----
		Rubidium	7440-17-7	E440A	0.010	mg/kg wwt	5.61	5.69	1.35%	40%	----
		Selenium	7782-49-2	E440A	0.010	mg/kg wwt	0.280	0.284	1.28%	40%	----
		Sodium	7440-23-5	E440A	4.0	mg/kg wwt	1400	1480	5.49%	40%	----
		Strontium	7440-24-6	E440A	0.010	mg/kg wwt	7.04	8.67	20.7%	60%	----
		Tellurium	13494-80-9	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440A	0.00040	mg/kg wwt	0.00125	0.00126	0.00002	Diff <2x LOR	----
		Tin	7440-31-5	E440A	0.020	mg/kg wwt	0.055	0.079	0.024	Diff <2x LOR	----
		Uranium	7440-61-1	E440A	0.00040	mg/kg wwt	0.00089	0.00097	0.00008	Diff <2x LOR	----
		Vanadium	7440-62-2	E440A	0.020	mg/kg wwt	0.086	0.106	0.020	Diff <2x LOR	----
		Zinc	7440-66-6	E440A	0.10	mg/kg wwt	27.0	29.3	8.16%	40%	----
		Zirconium	7440-67-7	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
Metals (QC Lot: 1281490)											
VA23C4435-041	CFMP-27-DM-15-C	Aluminum	7429-90-5	E440	2.0	mg/kg	120	130	8.25%	40%	----
		Antimony	7440-36-0	E440	0.010	mg/kg	<0.010	0.011	0.0007	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.044	0.050	0.006	Diff <2x LOR	----
		Barium	7440-39-3	E440	0.050	mg/kg	20.6	24.6	17.4%	40%	----
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Boron	7440-42-8	E440	1.0	mg/kg	2.7	2.5	0.2	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.0050	mg/kg	0.0373	0.0371	0.598%	40%	----
		Calcium	7440-70-2	E440	20	mg/kg	22700	28400	22.3%	60%	----
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.118	0.120	0.903%	40%	----
		Chromium	7440-47-3	E440	0.050	mg/kg	0.309	0.338	9.01%	40%	----
		Cobalt	7440-48-4	E440	0.020	mg/kg	0.083	0.093	0.009	Diff <2x LOR	----

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: 1281490) - continued											
VA23C4435-041	CFMP-27-DM-15-C	Copper	7440-50-8	E440	0.10	mg/kg	9.82	10.3	4.79%	40%	----
		Iron	7439-89-6	E440	3.0	mg/kg	254	291	13.2%	40%	----
		Lead	7439-92-1	E440	0.020	mg/kg	0.263	0.274	4.15%	40%	----
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	2.0	mg/kg	1170	1280	9.14%	40%	----
		Manganese	7439-96-5	E440	0.050	mg/kg	15.9	16.5	4.02%	40%	----
		Molybdenum	7439-98-7	E440	0.020	mg/kg	0.651	0.670	2.73%	40%	----
		Nickel	7440-02-0	E440	0.20	mg/kg	0.39	0.53	0.13	Diff <2x LOR	----
		Phosphorus	7723-14-0	E440	10	mg/kg	18700	22100	16.9%	40%	----
		Potassium	7440-09-7	E440	20	mg/kg	8300	8350	0.644%	40%	----
		Rubidium	7440-17-7	E440	0.050	mg/kg	16.7	16.9	1.35%	40%	----
		Selenium	7782-49-2	E440	0.050	mg/kg	0.832	0.843	1.28%	40%	----
		Sodium	7440-23-5	E440	20	mg/kg	4170	4410	5.49%	40%	----
		Strontium	7440-24-6	E440	0.050	mg/kg	20.9	25.8	20.7%	60%	----
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.0020	mg/kg	0.0037	0.0038	0.00005	Diff <2x LOR	----
		Tin	7440-31-5	E440	0.10	mg/kg	0.16	0.23	0.07	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.0020	mg/kg	0.0026	0.0029	0.0002	Diff <2x LOR	----
		Vanadium	7440-62-2	E440	0.10	mg/kg	0.26	0.31	0.06	Diff <2x LOR	----
		Zinc	7440-66-6	E440	0.50	mg/kg	80.2	87.0	8.16%	40%	----
		Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
Metals (QC Lot: 1281494)											
VA23C4435-081	CFMP-40-DM-5-C	Mercury	7439-97-6	E510A	0.0012	mg/kg wwt	0.0088	0.0095	7.53%	40%	----
Metals (QC Lot: 1281495)											
VA23C4435-081	CFMP-40-DM-5-C	Mercury	7439-97-6	E510	0.0050	mg/kg	0.0274	0.0295	7.53%	40%	----
Metals (QC Lot: 1281496)											
VA23C4435-081	CFMP-40-DM-5-C	Aluminum	7429-90-5	E440A	0.40	mg/kg wwt	37.5	38.6	2.88%	40%	----
		Antimony	7440-36-0	E440A	0.0020	mg/kg wwt	0.0050	0.0050	0.00008	Diff <2x LOR	----
		Arsenic	7440-38-2	E440A	0.0040	mg/kg wwt	0.0108	0.0098	0.0011	Diff <2x LOR	----
		Barium	7440-39-3	E440A	0.010	mg/kg wwt	4.54	4.38	3.57%	40%	----
		Beryllium	7440-41-7	E440A	0.0020	mg/kg wwt	<0.0020	<0.0020	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440A	0.0020	mg/kg wwt	0.0031	0.0045	0.0014	Diff <2x LOR	----
		Boron	7440-42-8	E440A	0.20	mg/kg wwt	0.55	0.57	0.02	Diff <2x LOR	----
		Cadmium	7440-43-9	E440A	0.0010	mg/kg wwt	0.0176	0.0171	2.72%	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: 1281496) - continued											
VA23C4435-081	CFMP-40-DM-5-C	Calcium	7440-70-2	E440A	4.0	mg/kg wwt	9310	8930	4.16%	60%	----
		Cesium	7440-46-2	E440A	0.0010	mg/kg wwt	0.205	0.216	5.54%	40%	----
		Chromium	7440-47-3	E440A	0.010	mg/kg wwt	0.123	0.116	6.40%	40%	----
		Cobalt	7440-48-4	E440A	0.0040	mg/kg wwt	0.0306	0.0320	4.52%	40%	----
		Copper	7440-50-8	E440A	0.020	mg/kg wwt	3.23	3.42	5.54%	40%	----
		Iron	7439-89-6	E440A	0.60	mg/kg wwt	68.7	72.6	5.65%	40%	----
		Lead	7439-92-1	E440A	0.0040	mg/kg wwt	0.0434	0.0473	8.64%	40%	----
		Lithium	7439-93-2	E440A	0.10	mg/kg wwt	<0.10	<0.10	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440A	0.40	mg/kg wwt	482	502	4.23%	40%	----
		Manganese	7439-96-5	E440A	0.010	mg/kg wwt	6.55	7.07	7.66%	40%	----
		Molybdenum	7439-98-7	E440A	0.0040	mg/kg wwt	0.280	0.295	5.04%	40%	----
		Nickel	7440-02-0	E440A	0.040	mg/kg wwt	0.450	0.432	4.20%	40%	----
		Phosphorus	7723-14-0	E440A	2.0	mg/kg wwt	7160	7080	1.02%	40%	----
		Potassium	7440-09-7	E440A	4.0	mg/kg wwt	2960	3110	4.91%	40%	----
		Rubidium	7440-17-7	E440A	0.010	mg/kg wwt	10.5	10.9	3.50%	40%	----
		Selenium	7782-49-2	E440A	0.010	mg/kg wwt	0.387	0.407	4.99%	40%	----
		Sodium	7440-23-5	E440A	4.0	mg/kg wwt	1350	1370	1.88%	40%	----
		Strontium	7440-24-6	E440A	0.010	mg/kg wwt	8.04	7.96	0.898%	60%	----
		Tellurium	13494-80-9	E440A	0.0040	mg/kg wwt	<0.0040	<0.0040	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440A	0.00040	mg/kg wwt	0.00094	0.00095	0.000004	Diff <2x LOR	----
		Tin	7440-31-5	E440A	0.020	mg/kg wwt	0.037	0.021	0.016	Diff <2x LOR	----
		Uranium	7440-61-1	E440A	0.00040	mg/kg wwt	0.00118	0.00115	0.00002	Diff <2x LOR	----
		Vanadium	7440-62-2	E440A	0.020	mg/kg wwt	0.022	0.022	0.00007	Diff <2x LOR	----
		Zinc	7440-66-6	E440A	0.10	mg/kg wwt	32.5	32.8	1.11%	40%	----
		Zirconium	7440-67-7	E440A	0.040	mg/kg wwt	<0.040	<0.040	0	Diff <2x LOR	----
Metals (QC Lot: 1281500)											
VA23C4435-081	CFMP-40-DM-5-C	Aluminum	7429-90-5	E440	2.0	mg/kg	116	120	2.88%	40%	----
		Antimony	7440-36-0	E440	0.010	mg/kg	0.016	0.015	0.0003	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.020	mg/kg	0.034	0.030	0.003	Diff <2x LOR	----
		Barium	7440-39-3	E440	0.050	mg/kg	14.1	13.6	3.57%	40%	----
		Beryllium	7440-41-7	E440	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.010	mg/kg	<0.010	0.014	0.004	Diff <2x LOR	----
		Boron	7440-42-8	E440	1.0	mg/kg	1.7	1.8	0.06	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.0050	mg/kg	0.0545	0.0531	2.72%	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: 1281500) - continued											
VA23C4435-081	CFMP-40-DM-5-C	Calcium	7440-70-2	E440	20	mg/kg	28800	27700	4.16%	60%	----
		Cesium	7440-46-2	E440	0.0050	mg/kg	0.635	0.671	5.54%	40%	----
		Chromium	7440-47-3	E440	0.050	mg/kg	0.382	0.358	6.40%	40%	----
		Cobalt	7440-48-4	E440	0.020	mg/kg	0.095	0.099	0.004	Diff <2x LOR	----
		Copper	7440-50-8	E440	0.10	mg/kg	10.0	10.6	5.54%	40%	----
		Iron	7439-89-6	E440	3.0	mg/kg	213	225	5.65%	40%	----
		Lead	7439-92-1	E440	0.020	mg/kg	0.134	0.146	8.64%	40%	----
		Lithium	7439-93-2	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	2.0	mg/kg	1490	1560	4.23%	40%	----
		Manganese	7439-96-5	E440	0.050	mg/kg	20.3	21.9	7.66%	40%	----
		Molybdenum	7439-98-7	E440	0.020	mg/kg	0.869	0.914	5.04%	40%	----
		Nickel	7440-02-0	E440	0.20	mg/kg	1.40	1.34	4.20%	40%	----
		Phosphorus	7723-14-0	E440	10	mg/kg	22200	22000	1.02%	40%	----
		Potassium	7440-09-7	E440	20	mg/kg	9180	9640	4.91%	40%	----
		Rubidium	7440-17-7	E440	0.050	mg/kg	32.5	33.7	3.50%	40%	----
		Selenium	7782-49-2	E440	0.050	mg/kg	1.20	1.26	4.99%	40%	----
		Sodium	7440-23-5	E440	20	mg/kg	4180	4260	1.88%	40%	----
		Strontium	7440-24-6	E440	0.050	mg/kg	24.9	24.7	0.898%	60%	----
		Tellurium	13494-80-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.0020	mg/kg	0.0029	0.0029	0.00001	Diff <2x LOR	----
		Tin	7440-31-5	E440	0.10	mg/kg	0.12	<0.10	0.02	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.0020	mg/kg	0.0036	0.0036	0.00008	Diff <2x LOR	----
		Vanadium	7440-62-2	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Zinc	7440-66-6	E440	0.50	mg/kg	101	102	1.11%	40%	----
		Zirconium	7440-67-7	E440	0.20	mg/kg	<0.20	<0.20	0	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: 1277264)						
Moisture	----	E144-H	2	%	<2.0	----
Physical Tests (QCLot: 1277610)						
Moisture	----	E144-H	2	%	<2.0	----
Physical Tests (QCLot: 1277613)						
Moisture	----	E144A	2	%	<2.0	----
Physical Tests (QCLot: 1277614)						
Moisture	----	E144-H	2	%	<2.0	----
Physical Tests (QCLot: 1278721)						
Moisture	----	E144A	2	%	<2.0	----
Physical Tests (QCLot: 1279682)						
Moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 1281529)						
Moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 1281530)						
Moisture	----	E144	0.5	%	<0.50	----
Physical Tests (QCLot: 1281531)						
Moisture	----	E144	0.5	%	# 0.80	B
Metals (QCLot: 1276740)						
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	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1276740) - continued						
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	----
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: 1276741)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1276742)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1276743)						
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	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1276743) - continued						
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	----
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: 1276779)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1276780)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1276781)						
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	<0.40	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	<0.0020	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	<0.0040	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	<0.010	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	<0.0020	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	<0.0020	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	<0.20	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	<0.0010	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1276781) - continued						
Calcium	7440-70-2	E440A	4	mg/kg wwt	<4.0	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	<0.0010	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	<0.010	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	<0.0040	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	<0.020	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	<0.60	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	<0.0040	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	<0.10	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	<0.40	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	# 0.065	B
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	<0.0040	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	<0.040	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	<2.0	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	<4.0	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	<0.010	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	<0.010	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	<4.0	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	<0.010	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	<0.0040	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	<0.00040	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	<0.020	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	<0.00040	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	<0.020	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	<0.10	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	<0.040	----
Metals (QCLot: 1276782)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E440	1	mg/kg	<1.0	----
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
Calcium	7440-70-2	E440	20	mg/kg	<20	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1276782) - continued						
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
Iron	7439-89-6	E440	3	mg/kg	<3.0	----
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
Manganese	7439-96-5	E440	0.05	mg/kg	# 0.327	B
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
Phosphorus	7723-14-0	E440	10	mg/kg	<10	----
Potassium	7440-09-7	E440	20	mg/kg	<20	----
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
Sodium	7440-23-5	E440	20	mg/kg	<20	----
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 1276864)						
Mercury	7439-97-6	E512	0.01	mg/kg	<0.010	----
Metals (QCLot: 1276865)						
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	<0.0020	----
Metals (QCLot: 1276866)						
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	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1276866) - continued						
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	----
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: 1276867)						
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	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1276867) - continued						
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	----
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: 1276874)						
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	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1276874) - continued						
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	----
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: 1276875)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1276876)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1276877)						
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	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1276877) - continued						
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	----
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: 1276890)						
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	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1276890) - continued						
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	----
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: 1276891)						
Mercury	7439-97-6	E511	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1276892)						
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1276893)						
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	----

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Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1276893) - continued						
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	----
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: 1276917)						
Mercury	7439-97-6	E512	0.01	mg/kg	<0.010	----
Metals (QCLot: 1276918)						
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	<0.0020	----
Metals (QCLot: 1276919)						

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Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1276919) - continued						
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	----
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: 1276920)						
Aluminum	7429-90-5	E475	5	mg/kg	<5.0	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1276920) - continued						
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	----
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: 1281482)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1281483)						

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1281483) - continued						
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	<0.40	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	<0.0020	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	<0.0040	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	<0.010	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	<0.0020	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	<0.0020	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	<0.20	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	<0.0010	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	<4.0	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	<0.0010	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	<0.010	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	<0.0040	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	<0.020	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	<0.60	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	<0.0040	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	<0.10	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	<0.40	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	<0.010	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	<0.0040	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	<0.040	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	<2.0	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	<4.0	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	<0.010	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	<0.010	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	<4.0	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	<0.010	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	<0.0040	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	<0.00040	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	<0.020	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	<0.00040	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	<0.020	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	<0.10	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	<0.040	----
Metals (QCLot: 1281484)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1281484) - continued						
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E440	1	mg/kg	<1.0	----
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
Calcium	7440-70-2	E440	20	mg/kg	<20	----
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
Iron	7439-89-6	E440	3	mg/kg	<3.0	----
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
Phosphorus	7723-14-0	E440	10	mg/kg	<10	----
Potassium	7440-09-7	E440	20	mg/kg	<20	----
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
Sodium	7440-23-5	E440	20	mg/kg	<20	----
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 1281485)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1281487)						

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Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1281487) - continued						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1281488)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1281489)						
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	<0.40	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	<0.0020	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	<0.0040	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	<0.010	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	<0.0020	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	<0.0020	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	<0.20	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	<0.0010	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	<4.0	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	<0.0010	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	<0.010	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	<0.0040	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	<0.020	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	<0.60	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	<0.0040	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	<0.10	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	<0.40	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	<0.010	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	<0.0040	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	<0.040	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	<2.0	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	<4.0	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	<0.010	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	<0.010	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	<4.0	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	<0.010	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	<0.0040	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	<0.00040	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	<0.020	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	<0.00040	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	<0.020	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1281489) - continued						
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	<0.10	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	<0.040	----
Metals (QCLot: 1281490)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E440	1	mg/kg	<1.0	----
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
Calcium	7440-70-2	E440	20	mg/kg	<20	----
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
Iron	7439-89-6	E440	3	mg/kg	<3.0	----
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
Phosphorus	7723-14-0	E440	10	mg/kg	<10	----
Potassium	7440-09-7	E440	20	mg/kg	<20	----
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
Sodium	7440-23-5	E440	20	mg/kg	<20	----
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1281490) - continued						
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----
Metals (QCLot: 1281494)						
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	<0.0010	----
Metals (QCLot: 1281495)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1281496)						
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	<0.40	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	<0.0020	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	<0.0040	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	<0.010	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	<0.0020	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	<0.0020	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	<0.20	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	<0.0010	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	<4.0	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	<0.0010	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	<0.010	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	<0.0040	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	<0.020	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	<0.60	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	<0.0040	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	<0.10	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	<0.40	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	<0.010	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	<0.0040	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	<0.040	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	<2.0	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	<4.0	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	<0.010	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	<0.010	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	<4.0	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	<0.010	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	<0.0040	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	<0.00040	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	<0.020	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1281496) - continued						
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	<0.00040	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	<0.020	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	<0.10	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	<0.040	----
Metals (QCLot: 1281500)						
Aluminum	7429-90-5	E440	2	mg/kg	<2.0	----
Antimony	7440-36-0	E440	0.01	mg/kg	<0.010	----
Arsenic	7440-38-2	E440	0.02	mg/kg	<0.020	----
Barium	7440-39-3	E440	0.05	mg/kg	<0.050	----
Beryllium	7440-41-7	E440	0.01	mg/kg	<0.010	----
Bismuth	7440-69-9	E440	0.01	mg/kg	<0.010	----
Boron	7440-42-8	E440	1	mg/kg	<1.0	----
Cadmium	7440-43-9	E440	0.005	mg/kg	<0.0050	----
Calcium	7440-70-2	E440	20	mg/kg	<20	----
Cesium	7440-46-2	E440	0.005	mg/kg	<0.0050	----
Chromium	7440-47-3	E440	0.05	mg/kg	<0.050	----
Cobalt	7440-48-4	E440	0.02	mg/kg	<0.020	----
Copper	7440-50-8	E440	0.1	mg/kg	<0.10	----
Iron	7439-89-6	E440	3	mg/kg	<3.0	----
Lead	7439-92-1	E440	0.02	mg/kg	<0.020	----
Lithium	7439-93-2	E440	0.5	mg/kg	<0.50	----
Magnesium	7439-95-4	E440	2	mg/kg	<2.0	----
Manganese	7439-96-5	E440	0.05	mg/kg	<0.050	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	<0.020	----
Nickel	7440-02-0	E440	0.2	mg/kg	<0.20	----
Phosphorus	7723-14-0	E440	10	mg/kg	<10	----
Potassium	7440-09-7	E440	20	mg/kg	<20	----
Rubidium	7440-17-7	E440	0.05	mg/kg	<0.050	----
Selenium	7782-49-2	E440	0.05	mg/kg	<0.050	----
Sodium	7440-23-5	E440	20	mg/kg	<20	----
Strontium	7440-24-6	E440	0.05	mg/kg	<0.050	----
Tellurium	13494-80-9	E440	0.02	mg/kg	<0.020	----
Thallium	7440-28-0	E440	0.002	mg/kg	<0.0020	----
Tin	7440-31-5	E440	0.1	mg/kg	<0.10	----
Uranium	7440-61-1	E440	0.002	mg/kg	<0.0020	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1281500) - continued						
Vanadium	7440-62-2	E440	0.1	mg/kg	<0.10	----
Zinc	7440-66-6	E440	0.5	mg/kg	<0.50	----
Zirconium	7440-67-7	E440	0.2	mg/kg	<0.20	----

Qualifiers

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

Laboratory Control Sample (LCS) Report

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

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1277264)									
Moisture	----	E144-H	2	%	100 %	100	90.0	110	----
Physical Tests (QCLot: 1277610)									
Moisture	----	E144-H	2	%	100 %	100	90.0	110	----
Physical Tests (QCLot: 1277613)									
Moisture	----	E144A	2	%	100 %	100	90.0	110	----
Physical Tests (QCLot: 1277614)									
Moisture	----	E144-H	2	%	100 %	100	90.0	110	----
Physical Tests (QCLot: 1278721)									
Moisture	----	E144A	2	%	100 %	100	90.0	110	----
Physical Tests (QCLot: 1279682)									
Moisture	----	E144	0.5	%	100 %	100	90.0	110	----
Physical Tests (QCLot: 1281529)									
Moisture	----	E144	0.5	%	50 %	100	90.0	110	----
Physical Tests (QCLot: 1281530)									
Moisture	----	E144	0.5	%	50 %	99.0	90.0	110	----
Physical Tests (QCLot: 1281531)									
Moisture	----	E144	0.5	%	50 %	99.7	90.0	110	----
Metals (QCLot: 1276740)									
Aluminum	7429-90-5	E472A	1	mg/kg wwt	20 mg/kg wwt	105	80.0	120	----
Antimony	7440-36-0	E472A	0.002	mg/kg wwt	10 mg/kg wwt	98.7	80.0	120	----
Arsenic	7440-38-2	E472A	0.006	mg/kg wwt	10 mg/kg wwt	104	80.0	120	----
Barium	7440-39-3	E472A	0.01	mg/kg wwt	2.5 mg/kg wwt	102	80.0	120	----
Beryllium	7440-41-7	E472A	0.002	mg/kg wwt	1 mg/kg wwt	101	80.0	120	----
Bismuth	7440-69-9	E472A	0.002	mg/kg wwt	10 mg/kg wwt	96.4	80.0	120	----
Boron	7440-42-8	E472A	0.2	mg/kg wwt	10 mg/kg wwt	94.8	80.0	120	----
Cadmium	7440-43-9	E472A	0.002	mg/kg wwt	1 mg/kg wwt	100	80.0	120	----
Calcium	7440-70-2	E472A	4	mg/kg wwt	500 mg/kg wwt	99.9	80.0	120	----
Cesium	7440-46-2	E472A	0.001	mg/kg wwt	0.5 mg/kg wwt	107	80.0	120	----
Chromium	7440-47-3	E472A	0.04	mg/kg wwt	2.5 mg/kg wwt	102	80.0	120	----
Cobalt	7440-48-4	E472A	0.004	mg/kg wwt	2.5 mg/kg wwt	99.1	80.0	120	----
Copper	7440-50-8	E472A	0.04	mg/kg wwt	2.5 mg/kg wwt	95.2	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1276740) - continued									
Iron	7439-89-6	E472A	1	mg/kg wwt	10 mg/kg wwt	102	80.0	120	----
Lead	7439-92-1	E472A	0.01	mg/kg wwt	5 mg/kg wwt	102	80.0	120	----
Lithium	7439-93-2	E472A	0.1	mg/kg wwt	2.5 mg/kg wwt	97.5	80.0	120	----
Magnesium	7439-95-4	E472A	0.4	mg/kg wwt	500 mg/kg wwt	102	80.0	120	----
Manganese	7439-96-5	E472A	0.01	mg/kg wwt	2.5 mg/kg wwt	103	80.0	120	----
Molybdenum	7439-98-7	E472A	0.008	mg/kg wwt	2.5 mg/kg wwt	106	80.0	120	----
Nickel	7440-02-0	E472A	0.04	mg/kg wwt	5 mg/kg wwt	98.9	80.0	120	----
Phosphorus	7723-14-0	E472A	2	mg/kg wwt	100 mg/kg wwt	111	80.0	120	----
Potassium	7440-09-7	E472A	4	mg/kg wwt	500 mg/kg wwt	103	80.0	120	----
Rubidium	7440-17-7	E472A	0.01	mg/kg wwt	1 mg/kg wwt	102	80.0	120	----
Selenium	7782-49-2	E472A	0.02	mg/kg wwt	10 mg/kg wwt	96.4	80.0	120	----
Sodium	7440-23-5	E472A	4	mg/kg wwt	500 mg/kg wwt	103	80.0	120	----
Strontium	7440-24-6	E472A	0.02	mg/kg wwt	2.5 mg/kg wwt	110	80.0	120	----
Tellurium	13494-80-9	E472A	0.004	mg/kg wwt	1 mg/kg wwt	98.2	80.0	120	----
Thallium	7440-28-0	E472A	0.0004	mg/kg wwt	10 mg/kg wwt	98.7	80.0	120	----
Tin	7440-31-5	E472A	0.02	mg/kg wwt	5 mg/kg wwt	101	80.0	120	----
Uranium	7440-61-1	E472A	0.0004	mg/kg wwt	0.05 mg/kg wwt	101	80.0	120	----
Vanadium	7440-62-2	E472A	0.02	mg/kg wwt	5 mg/kg wwt	104	80.0	120	----
Zinc	7440-66-6	E472A	0.2	mg/kg wwt	5 mg/kg wwt	96.0	80.0	120	----
Zirconium	7440-67-7	E472A	0.04	mg/kg wwt	1 mg/kg wwt	105	80.0	120	----
Metals (QCLot: 1276741)									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	108	80.0	120	----
Metals (QCLot: 1276742)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	108	80.0	120	----
Metals (QCLot: 1276743)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	105	80.0	120	----
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	98.7	80.0	120	----
Arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	104	80.0	120	----
Barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	102	80.0	120	----
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	101	80.0	120	----
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	96.4	80.0	120	----
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	94.8	80.0	120	----
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	100	80.0	120	----
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	99.9	80.0	120	----
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	107	80.0	120	----
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	102	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1276743) - continued									
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	99.1	80.0	120	----
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	95.2	80.0	120	----
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	102	80.0	120	----
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	102	80.0	120	----
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	97.5	80.0	120	----
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	102	80.0	120	----
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	103	80.0	120	----
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	106	80.0	120	----
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	98.9	80.0	120	----
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	111	80.0	120	----
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	103	80.0	120	----
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	102	80.0	120	----
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	96.4	80.0	120	----
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	103	80.0	120	----
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	110	80.0	120	----
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	98.2	80.0	120	----
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	98.7	80.0	120	----
Tin	7440-31-5	E472	0.1	mg/kg	5 mg/kg	101	80.0	120	----
Uranium	7440-61-1	E472	0.002	mg/kg	0.05 mg/kg	101	80.0	120	----
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	104	80.0	120	----
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	96.0	80.0	120	----
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	105	80.0	120	----
Metals (QCLot: 1276779)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	99.0	80.0	120	----
Metals (QCLot: 1276780)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	99.0	80.0	120	----
Metals (QCLot: 1276781)									
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	20 mg/kg wwt	114	80.0	120	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	10 mg/kg wwt	109	80.0	120	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	10 mg/kg wwt	117	80.0	120	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	111	80.0	120	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	1 mg/kg wwt	107	80.0	120	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	10 mg/kg wwt	104	80.0	120	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	10 mg/kg wwt	98.2	80.0	120	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	1 mg/kg wwt	104	80.0	120	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	500 mg/kg wwt	106	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1276781) - continued									
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	0.5 mg/kg wwt	106	80.0	120	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	112	80.0	120	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	110	80.0	120	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	2.5 mg/kg wwt	107	80.0	120	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	10 mg/kg wwt	110	80.0	120	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	5 mg/kg wwt	108	80.0	120	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	2.5 mg/kg wwt	106	80.0	120	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	500 mg/kg wwt	116	80.0	120	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	113	80.0	120	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	106	80.0	120	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	5 mg/kg wwt	110	80.0	120	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	100 mg/kg wwt	# 122	80.0	120	MES
Potassium	7440-09-7	E440A	4	mg/kg wwt	500 mg/kg wwt	# 122	80.0	120	MES
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	1 mg/kg wwt	112	80.0	120	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	10 mg/kg wwt	113	80.0	120	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	500 mg/kg wwt	# 122	80.0	120	MES
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	118	80.0	120	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	1 mg/kg wwt	104	80.0	120	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	10 mg/kg wwt	108	80.0	120	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	5 mg/kg wwt	107	80.0	120	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	0.05 mg/kg wwt	102	80.0	120	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	5 mg/kg wwt	114	80.0	120	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	5 mg/kg wwt	107	80.0	120	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	1 mg/kg wwt	105	80.0	120	----
Metals (QCLot: 1276782)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	114	80.0	120	----
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	109	80.0	120	----
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	117	80.0	120	----
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	111	80.0	120	----
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	107	80.0	120	----
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	104	80.0	120	----
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	98.2	80.0	120	----
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	104	80.0	120	----
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	106	80.0	120	----
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	106	80.0	120	----
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	112	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1276782) - continued									
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	110	80.0	120	----
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	107	80.0	120	----
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	110	80.0	120	----
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	108	80.0	120	----
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	106	80.0	120	----
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	116	80.0	120	----
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	113	80.0	120	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	106	80.0	120	----
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	110	80.0	120	----
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	# 122	80.0	120	MES
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	# 122	80.0	120	MES
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	112	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	113	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	# 122	80.0	120	MES
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	118	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	104	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	108	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	107	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	102	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	114	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	107	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	105	80.0	120	----
Metals (QCLot: 1276864)									
Mercury	7439-97-6	E512	0.01	mg/kg	0.05 mg/kg	95.8	80.0	120	----
Metals (QCLot: 1276865)									
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	0.05 mg/kg wwt	95.8	80.0	120	----
Metals (QCLot: 1276866)									
Aluminum	7429-90-5	E475A	1	mg/kg wwt	50 mg/kg wwt	103	80.0	120	----
Antimony	7440-36-0	E475A	0.004	mg/kg wwt	25 mg/kg wwt	99.1	80.0	120	----
Arsenic	7440-38-2	E475A	0.01	mg/kg wwt	25 mg/kg wwt	104	80.0	120	----
Barium	7440-39-3	E475A	0.01	mg/kg wwt	6.25 mg/kg wwt	99.4	80.0	120	----
Beryllium	7440-41-7	E475A	0.002	mg/kg wwt	2.5 mg/kg wwt	98.0	80.0	120	----
Bismuth	7440-69-9	E475A	0.002	mg/kg wwt	25 mg/kg wwt	96.5	80.0	120	----
Boron	7440-42-8	E475A	0.2	mg/kg wwt	25 mg/kg wwt	89.3	80.0	120	----
Cadmium	7440-43-9	E475A	0.002	mg/kg wwt	2.5 mg/kg wwt	98.1	80.0	120	----
Calcium	7440-70-2	E475A	4	mg/kg wwt	1250 mg/kg wwt	97.0	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1276866) - continued									
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	97.6	80.0	120	----
Copper	7440-50-8	E475A	0.04	mg/kg wwt	6.25 mg/kg wwt	94.0	80.0	120	----
Iron	7439-89-6	E475A	1	mg/kg wwt	25 mg/kg wwt	99.5	80.0	120	----
Lead	7439-92-1	E475A	0.01	mg/kg wwt	12.5 mg/kg wwt	102	80.0	120	----
Lithium	7439-93-2	E475A	0.1	mg/kg wwt	6.25 mg/kg wwt	94.3	80.0	120	----
Magnesium	7439-95-4	E475A	0.4	mg/kg wwt	1250 mg/kg wwt	99.2	80.0	120	----
Manganese	7439-96-5	E475A	0.01	mg/kg wwt	6.25 mg/kg wwt	100	80.0	120	----
Molybdenum	7439-98-7	E475A	0.008	mg/kg wwt	6.25 mg/kg wwt	103	80.0	120	----
Nickel	7440-02-0	E475A	0.04	mg/kg wwt	12.5 mg/kg wwt	97.1	80.0	120	----
Phosphorus	7723-14-0	E475A	4	mg/kg wwt	250 mg/kg wwt	109	80.0	120	----
Potassium	7440-09-7	E475A	4	mg/kg wwt	1250 mg/kg wwt	101	80.0	120	----
Rubidium	7440-17-7	E475A	0.01	mg/kg wwt	2.5 mg/kg wwt	100	80.0	120	----
Selenium	7782-49-2	E475A	0.02	mg/kg wwt	25 mg/kg wwt	95.3	80.0	120	----
Sodium	7440-23-5	E475A	4	mg/kg wwt	1250 mg/kg wwt	99.8	80.0	120	----
Strontium	7440-24-6	E475A	0.02	mg/kg wwt	6.25 mg/kg wwt	108	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	97.0	80.0	120	----
Tin	7440-31-5	E475A	0.02	mg/kg wwt	12.5 mg/kg wwt	101	80.0	120	----
Uranium	7440-61-1	E475A	0.0004	mg/kg wwt	0.125 mg/kg wwt	99.1	80.0	120	----
Vanadium	7440-62-2	E475A	0.02	mg/kg wwt	12.5 mg/kg wwt	102	80.0	120	----
Zinc	7440-66-6	E475A	0.2	mg/kg wwt	12.5 mg/kg wwt	94.3	80.0	120	----
Zirconium	7440-67-7	E475A	0.04	mg/kg wwt	2.5 mg/kg wwt	106	80.0	120	----
Metals (QCLot: 1276867)									
Aluminum	7429-90-5	E475	5	mg/kg	50 mg/kg	103	80.0	120	----
Antimony	7440-36-0	E475	0.02	mg/kg	25 mg/kg	99.1	80.0	120	----
Arsenic	7440-38-2	E475	0.05	mg/kg	25 mg/kg	104	80.0	120	----
Barium	7440-39-3	E475	0.05	mg/kg	6.25 mg/kg	99.4	80.0	120	----
Beryllium	7440-41-7	E475	0.01	mg/kg	2.5 mg/kg	98.0	80.0	120	----
Bismuth	7440-69-9	E475	0.01	mg/kg	25 mg/kg	96.5	80.0	120	----
Boron	7440-42-8	E475	1	mg/kg	25 mg/kg	89.3	80.0	120	----
Cadmium	7440-43-9	E475	0.01	mg/kg	2.5 mg/kg	98.1	80.0	120	----
Calcium	7440-70-2	E475	20	mg/kg	1250 mg/kg	97.0	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	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1276867) - continued									
Cobalt	7440-48-4	E475	0.02	mg/kg	6.25 mg/kg	97.6	80.0	120	----
Copper	7440-50-8	E475	0.2	mg/kg	6.25 mg/kg	94.0	80.0	120	----
Iron	7439-89-6	E475	5	mg/kg	25 mg/kg	99.5	80.0	120	----
Lead	7439-92-1	E475	0.05	mg/kg	12.5 mg/kg	102	80.0	120	----
Lithium	7439-93-2	E475	0.5	mg/kg	6.25 mg/kg	94.3	80.0	120	----
Magnesium	7439-95-4	E475	2	mg/kg	1250 mg/kg	99.2	80.0	120	----
Manganese	7439-96-5	E475	0.05	mg/kg	6.25 mg/kg	100	80.0	120	----
Molybdenum	7439-98-7	E475	0.04	mg/kg	6.25 mg/kg	103	80.0	120	----
Nickel	7440-02-0	E475	0.2	mg/kg	12.5 mg/kg	97.1	80.0	120	----
Phosphorus	7723-14-0	E475	20	mg/kg	250 mg/kg	109	80.0	120	----
Potassium	7440-09-7	E475	20	mg/kg	1250 mg/kg	101	80.0	120	----
Rubidium	7440-17-7	E475	0.05	mg/kg	2.5 mg/kg	100	80.0	120	----
Selenium	7782-49-2	E475	0.1	mg/kg	25 mg/kg	95.3	80.0	120	----
Sodium	7440-23-5	E475	20	mg/kg	1250 mg/kg	99.8	80.0	120	----
Strontium	7440-24-6	E475	0.1	mg/kg	6.25 mg/kg	108	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	97.0	80.0	120	----
Tin	7440-31-5	E475	0.1	mg/kg	12.5 mg/kg	101	80.0	120	----
Uranium	7440-61-1	E475	0.002	mg/kg	0.125 mg/kg	99.1	80.0	120	----
Vanadium	7440-62-2	E475	0.1	mg/kg	12.5 mg/kg	102	80.0	120	----
Zinc	7440-66-6	E475	1	mg/kg	12.5 mg/kg	94.3	80.0	120	----
Zirconium	7440-67-7	E475	0.2	mg/kg	2.5 mg/kg	106	80.0	120	----
Metals (QCLot: 1276874)									
Aluminum	7429-90-5	E472A	1	mg/kg wwt	20 mg/kg wwt	111	80.0	120	----
Antimony	7440-36-0	E472A	0.002	mg/kg wwt	10 mg/kg wwt	102	80.0	120	----
Arsenic	7440-38-2	E472A	0.006	mg/kg wwt	10 mg/kg wwt	109	80.0	120	----
Barium	7440-39-3	E472A	0.01	mg/kg wwt	2.5 mg/kg wwt	104	80.0	120	----
Beryllium	7440-41-7	E472A	0.002	mg/kg wwt	1 mg/kg wwt	97.7	80.0	120	----
Bismuth	7440-69-9	E472A	0.002	mg/kg wwt	10 mg/kg wwt	97.0	80.0	120	----
Boron	7440-42-8	E472A	0.2	mg/kg wwt	10 mg/kg wwt	96.3	80.0	120	----
Cadmium	7440-43-9	E472A	0.002	mg/kg wwt	1 mg/kg wwt	98.4	80.0	120	----
Calcium	7440-70-2	E472A	4	mg/kg wwt	500 mg/kg wwt	97.0	80.0	120	----
Cesium	7440-46-2	E472A	0.001	mg/kg wwt	0.5 mg/kg wwt	104	80.0	120	----
Chromium	7440-47-3	E472A	0.04	mg/kg wwt	2.5 mg/kg wwt	106	80.0	120	----
Cobalt	7440-48-4	E472A	0.004	mg/kg wwt	2.5 mg/kg wwt	103	80.0	120	----
Copper	7440-50-8	E472A	0.04	mg/kg wwt	2.5 mg/kg wwt	99.4	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1276874) - continued									
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	103	80.0	120	----
Lithium	7439-93-2	E472A	0.1	mg/kg wwt	2.5 mg/kg wwt	93.2	80.0	120	----
Magnesium	7439-95-4	E472A	0.4	mg/kg wwt	500 mg/kg wwt	104	80.0	120	----
Manganese	7439-96-5	E472A	0.01	mg/kg wwt	2.5 mg/kg wwt	106	80.0	120	----
Molybdenum	7439-98-7	E472A	0.008	mg/kg wwt	2.5 mg/kg wwt	106	80.0	120	----
Nickel	7440-02-0	E472A	0.04	mg/kg wwt	5 mg/kg wwt	102	80.0	120	----
Phosphorus	7723-14-0	E472A	2	mg/kg wwt	100 mg/kg wwt	118	80.0	120	----
Potassium	7440-09-7	E472A	4	mg/kg wwt	500 mg/kg wwt	109	80.0	120	----
Rubidium	7440-17-7	E472A	0.01	mg/kg wwt	1 mg/kg wwt	104	80.0	120	----
Selenium	7782-49-2	E472A	0.02	mg/kg wwt	10 mg/kg wwt	102	80.0	120	----
Sodium	7440-23-5	E472A	4	mg/kg wwt	500 mg/kg wwt	108	80.0	120	----
Strontium	7440-24-6	E472A	0.02	mg/kg wwt	2.5 mg/kg wwt	104	80.0	120	----
Tellurium	13494-80-9	E472A	0.004	mg/kg wwt	1 mg/kg wwt	99.6	80.0	120	----
Thallium	7440-28-0	E472A	0.0004	mg/kg wwt	10 mg/kg wwt	99.8	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	102	80.0	120	----
Vanadium	7440-62-2	E472A	0.02	mg/kg wwt	5 mg/kg wwt	107	80.0	120	----
Zinc	7440-66-6	E472A	0.2	mg/kg wwt	5 mg/kg wwt	99.8	80.0	120	----
Zirconium	7440-67-7	E472A	0.04	mg/kg wwt	1 mg/kg wwt	105	80.0	120	----
Metals (QCLot: 1276875)									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	83.2	80.0	120	----
Metals (QCLot: 1276876)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	83.2	80.0	120	----
Metals (QCLot: 1276877)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	111	80.0	120	----
Antimony	7440-36-0	E472	0.01	mg/kg	10 mg/kg	102	80.0	120	----
Arsenic	7440-38-2	E472	0.03	mg/kg	10 mg/kg	109	80.0	120	----
Barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	104	80.0	120	----
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	97.7	80.0	120	----
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	97.0	80.0	120	----
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	96.3	80.0	120	----
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	98.4	80.0	120	----
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	97.0	80.0	120	----
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	104	80.0	120	----
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	106	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1276877) - continued									
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	103	80.0	120	----
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	99.4	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	103	80.0	120	----
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	93.2	80.0	120	----
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	104	80.0	120	----
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	106	80.0	120	----
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	106	80.0	120	----
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	102	80.0	120	----
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	118	80.0	120	----
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	109	80.0	120	----
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	104	80.0	120	----
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	102	80.0	120	----
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	108	80.0	120	----
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	104	80.0	120	----
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	99.6	80.0	120	----
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	99.8	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	102	80.0	120	----
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	107	80.0	120	----
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	99.8	80.0	120	----
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	105	80.0	120	----
Metals (QCLot: 1276890)									
Aluminum	7429-90-5	E472A	1	mg/kg wwt	20 mg/kg wwt	112	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	110	80.0	120	----
Barium	7440-39-3	E472A	0.01	mg/kg wwt	2.5 mg/kg wwt	102	80.0	120	----
Beryllium	7440-41-7	E472A	0.002	mg/kg wwt	1 mg/kg wwt	99.3	80.0	120	----
Bismuth	7440-69-9	E472A	0.002	mg/kg wwt	10 mg/kg wwt	101	80.0	120	----
Boron	7440-42-8	E472A	0.2	mg/kg wwt	10 mg/kg wwt	97.0	80.0	120	----
Cadmium	7440-43-9	E472A	0.002	mg/kg wwt	1 mg/kg wwt	102	80.0	120	----
Calcium	7440-70-2	E472A	4	mg/kg wwt	500 mg/kg wwt	99.2	80.0	120	----
Cesium	7440-46-2	E472A	0.001	mg/kg wwt	0.5 mg/kg wwt	105	80.0	120	----
Chromium	7440-47-3	E472A	0.04	mg/kg wwt	2.5 mg/kg wwt	106	80.0	120	----
Cobalt	7440-48-4	E472A	0.004	mg/kg wwt	2.5 mg/kg wwt	103	80.0	120	----
Copper	7440-50-8	E472A	0.04	mg/kg wwt	2.5 mg/kg wwt	100	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1276890) - continued									
Iron	7439-89-6	E472A	1	mg/kg wwt	10 mg/kg wwt	103	80.0	120	----
Lead	7439-92-1	E472A	0.01	mg/kg wwt	5 mg/kg wwt	107	80.0	120	----
Lithium	7439-93-2	E472A	0.1	mg/kg wwt	2.5 mg/kg wwt	95.5	80.0	120	----
Magnesium	7439-95-4	E472A	0.4	mg/kg wwt	500 mg/kg wwt	107	80.0	120	----
Manganese	7439-96-5	E472A	0.01	mg/kg wwt	2.5 mg/kg wwt	106	80.0	120	----
Molybdenum	7439-98-7	E472A	0.008	mg/kg wwt	2.5 mg/kg wwt	108	80.0	120	----
Nickel	7440-02-0	E472A	0.04	mg/kg wwt	5 mg/kg wwt	102	80.0	120	----
Phosphorus	7723-14-0	E472A	2	mg/kg wwt	100 mg/kg wwt	115	80.0	120	----
Potassium	7440-09-7	E472A	4	mg/kg wwt	500 mg/kg wwt	112	80.0	120	----
Rubidium	7440-17-7	E472A	0.01	mg/kg wwt	1 mg/kg wwt	106	80.0	120	----
Selenium	7782-49-2	E472A	0.02	mg/kg wwt	10 mg/kg wwt	103	80.0	120	----
Sodium	7440-23-5	E472A	4	mg/kg wwt	500 mg/kg wwt	107	80.0	120	----
Strontium	7440-24-6	E472A	0.02	mg/kg wwt	2.5 mg/kg wwt	110	80.0	120	----
Tellurium	13494-80-9	E472A	0.004	mg/kg wwt	1 mg/kg wwt	101	80.0	120	----
Thallium	7440-28-0	E472A	0.0004	mg/kg wwt	10 mg/kg wwt	102	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	105	80.0	120	----
Vanadium	7440-62-2	E472A	0.02	mg/kg wwt	5 mg/kg wwt	108	80.0	120	----
Zinc	7440-66-6	E472A	0.2	mg/kg wwt	5 mg/kg wwt	99.1	80.0	120	----
Zirconium	7440-67-7	E472A	0.04	mg/kg wwt	1 mg/kg wwt	107	80.0	120	----
Metals (QCLot: 1276891)									
Mercury	7439-97-6	E511	0.005	mg/kg	0.02 mg/kg	101	80.0	120	----
Metals (QCLot: 1276892)									
Mercury	7439-97-6	E511A	0.001	mg/kg wwt	0.02 mg/kg wwt	101	80.0	120	----
Metals (QCLot: 1276893)									
Aluminum	7429-90-5	E472	5	mg/kg	20 mg/kg	112	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	110	80.0	120	----
Barium	7440-39-3	E472	0.05	mg/kg	2.5 mg/kg	102	80.0	120	----
Beryllium	7440-41-7	E472	0.01	mg/kg	1 mg/kg	99.3	80.0	120	----
Bismuth	7440-69-9	E472	0.01	mg/kg	10 mg/kg	101	80.0	120	----
Boron	7440-42-8	E472	1	mg/kg	10 mg/kg	97.0	80.0	120	----
Cadmium	7440-43-9	E472	0.01	mg/kg	1 mg/kg	102	80.0	120	----
Calcium	7440-70-2	E472	20	mg/kg	500 mg/kg	99.2	80.0	120	----
Cesium	7440-46-2	E472	0.005	mg/kg	0.5 mg/kg	105	80.0	120	----
Chromium	7440-47-3	E472	0.2	mg/kg	2.5 mg/kg	106	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1276893) - continued									
Cobalt	7440-48-4	E472	0.02	mg/kg	2.5 mg/kg	103	80.0	120	----
Copper	7440-50-8	E472	0.2	mg/kg	2.5 mg/kg	100	80.0	120	----
Iron	7439-89-6	E472	5	mg/kg	10 mg/kg	103	80.0	120	----
Lead	7439-92-1	E472	0.05	mg/kg	5 mg/kg	107	80.0	120	----
Lithium	7439-93-2	E472	0.5	mg/kg	2.5 mg/kg	95.5	80.0	120	----
Magnesium	7439-95-4	E472	2	mg/kg	500 mg/kg	107	80.0	120	----
Manganese	7439-96-5	E472	0.05	mg/kg	2.5 mg/kg	106	80.0	120	----
Molybdenum	7439-98-7	E472	0.04	mg/kg	2.5 mg/kg	108	80.0	120	----
Nickel	7440-02-0	E472	0.2	mg/kg	5 mg/kg	102	80.0	120	----
Phosphorus	7723-14-0	E472	10	mg/kg	100 mg/kg	115	80.0	120	----
Potassium	7440-09-7	E472	20	mg/kg	500 mg/kg	112	80.0	120	----
Rubidium	7440-17-7	E472	0.05	mg/kg	1 mg/kg	106	80.0	120	----
Selenium	7782-49-2	E472	0.1	mg/kg	10 mg/kg	103	80.0	120	----
Sodium	7440-23-5	E472	20	mg/kg	500 mg/kg	107	80.0	120	----
Strontium	7440-24-6	E472	0.1	mg/kg	2.5 mg/kg	110	80.0	120	----
Tellurium	13494-80-9	E472	0.02	mg/kg	1 mg/kg	101	80.0	120	----
Thallium	7440-28-0	E472	0.002	mg/kg	10 mg/kg	102	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	105	80.0	120	----
Vanadium	7440-62-2	E472	0.1	mg/kg	5 mg/kg	108	80.0	120	----
Zinc	7440-66-6	E472	1	mg/kg	5 mg/kg	99.1	80.0	120	----
Zirconium	7440-67-7	E472	0.2	mg/kg	1 mg/kg	107	80.0	120	----
Metals (QCLot: 1276917)									
Mercury	7439-97-6	E512	0.01	mg/kg	0.05 mg/kg	101	80.0	120	----
Metals (QCLot: 1276918)									
Mercury	7439-97-6	E512A	0.002	mg/kg wwt	0.05 mg/kg wwt	101	80.0	120	----
Metals (QCLot: 1276919)									
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	106	80.0	120	----
Arsenic	7440-38-2	E475A	0.01	mg/kg wwt	25 mg/kg wwt	106	80.0	120	----
Barium	7440-39-3	E475A	0.01	mg/kg wwt	6.25 mg/kg wwt	99.0	80.0	120	----
Beryllium	7440-41-7	E475A	0.002	mg/kg wwt	2.5 mg/kg wwt	98.6	80.0	120	----
Bismuth	7440-69-9	E475A	0.002	mg/kg wwt	25 mg/kg wwt	99.3	80.0	120	----
Boron	7440-42-8	E475A	0.2	mg/kg wwt	25 mg/kg wwt	93.2	80.0	120	----
Cadmium	7440-43-9	E475A	0.002	mg/kg wwt	2.5 mg/kg wwt	103	80.0	120	----
Calcium	7440-70-2	E475A	4	mg/kg wwt	1250 mg/kg wwt	98.1	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1276919) - continued									
Cesium	7440-46-2	E475A	0.001	mg/kg wwt	1.25 mg/kg wwt	107	80.0	120	----
Chromium	7440-47-3	E475A	0.04	mg/kg wwt	6.25 mg/kg wwt	102	80.0	120	----
Cobalt	7440-48-4	E475A	0.004	mg/kg wwt	6.25 mg/kg wwt	99.4	80.0	120	----
Copper	7440-50-8	E475A	0.04	mg/kg wwt	6.25 mg/kg wwt	96.1	80.0	120	----
Iron	7439-89-6	E475A	1	mg/kg wwt	25 mg/kg wwt	99.4	80.0	120	----
Lead	7439-92-1	E475A	0.01	mg/kg wwt	12.5 mg/kg wwt	105	80.0	120	----
Lithium	7439-93-2	E475A	0.1	mg/kg wwt	6.25 mg/kg wwt	95.5	80.0	120	----
Magnesium	7439-95-4	E475A	0.4	mg/kg wwt	1250 mg/kg wwt	103	80.0	120	----
Manganese	7439-96-5	E475A	0.01	mg/kg wwt	6.25 mg/kg wwt	102	80.0	120	----
Molybdenum	7439-98-7	E475A	0.008	mg/kg wwt	6.25 mg/kg wwt	112	80.0	120	----
Nickel	7440-02-0	E475A	0.04	mg/kg wwt	12.5 mg/kg wwt	98.5	80.0	120	----
Phosphorus	7723-14-0	E475A	4	mg/kg wwt	250 mg/kg wwt	110	80.0	120	----
Potassium	7440-09-7	E475A	4	mg/kg wwt	1250 mg/kg wwt	104	80.0	120	----
Rubidium	7440-17-7	E475A	0.01	mg/kg wwt	2.5 mg/kg wwt	104	80.0	120	----
Selenium	7782-49-2	E475A	0.02	mg/kg wwt	25 mg/kg wwt	99.2	80.0	120	----
Sodium	7440-23-5	E475A	4	mg/kg wwt	1250 mg/kg wwt	104	80.0	120	----
Strontium	7440-24-6	E475A	0.02	mg/kg wwt	6.25 mg/kg wwt	113	80.0	120	----
Tellurium	13494-80-9	E475A	0.004	mg/kg wwt	2.5 mg/kg wwt	103	80.0	120	----
Thallium	7440-28-0	E475A	0.0004	mg/kg wwt	25 mg/kg wwt	101	80.0	120	----
Tin	7440-31-5	E475A	0.02	mg/kg wwt	12.5 mg/kg wwt	103	80.0	120	----
Uranium	7440-61-1	E475A	0.0004	mg/kg wwt	0.125 mg/kg wwt	103	80.0	120	----
Vanadium	7440-62-2	E475A	0.02	mg/kg wwt	12.5 mg/kg wwt	104	80.0	120	----
Zinc	7440-66-6	E475A	0.2	mg/kg wwt	12.5 mg/kg wwt	96.4	80.0	120	----
Zirconium	7440-67-7	E475A	0.04	mg/kg wwt	2.5 mg/kg wwt	110	80.0	120	----
Metals (QCLot: 1276920)									
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	106	80.0	120	----
Arsenic	7440-38-2	E475	0.05	mg/kg	25 mg/kg	106	80.0	120	----
Barium	7440-39-3	E475	0.05	mg/kg	6.25 mg/kg	99.0	80.0	120	----
Beryllium	7440-41-7	E475	0.01	mg/kg	2.5 mg/kg	98.6	80.0	120	----
Bismuth	7440-69-9	E475	0.01	mg/kg	25 mg/kg	99.3	80.0	120	----
Boron	7440-42-8	E475	1	mg/kg	25 mg/kg	93.2	80.0	120	----
Cadmium	7440-43-9	E475	0.01	mg/kg	2.5 mg/kg	103	80.0	120	----
Calcium	7440-70-2	E475	20	mg/kg	1250 mg/kg	98.1	80.0	120	----
Cesium	7440-46-2	E475	0.005	mg/kg	1.25 mg/kg	107	80.0	120	----
Chromium	7440-47-3	E475	0.2	mg/kg	6.25 mg/kg	102	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1276920) - continued									
Cobalt	7440-48-4	E475	0.02	mg/kg	6.25 mg/kg	99.4	80.0	120	----
Copper	7440-50-8	E475	0.2	mg/kg	6.25 mg/kg	96.1	80.0	120	----
Iron	7439-89-6	E475	5	mg/kg	25 mg/kg	99.4	80.0	120	----
Lead	7439-92-1	E475	0.05	mg/kg	12.5 mg/kg	105	80.0	120	----
Lithium	7439-93-2	E475	0.5	mg/kg	6.25 mg/kg	95.5	80.0	120	----
Magnesium	7439-95-4	E475	2	mg/kg	1250 mg/kg	103	80.0	120	----
Manganese	7439-96-5	E475	0.05	mg/kg	6.25 mg/kg	102	80.0	120	----
Molybdenum	7439-98-7	E475	0.04	mg/kg	6.25 mg/kg	112	80.0	120	----
Nickel	7440-02-0	E475	0.2	mg/kg	12.5 mg/kg	98.5	80.0	120	----
Phosphorus	7723-14-0	E475	20	mg/kg	250 mg/kg	110	80.0	120	----
Potassium	7440-09-7	E475	20	mg/kg	1250 mg/kg	104	80.0	120	----
Rubidium	7440-17-7	E475	0.05	mg/kg	2.5 mg/kg	104	80.0	120	----
Selenium	7782-49-2	E475	0.1	mg/kg	25 mg/kg	99.2	80.0	120	----
Sodium	7440-23-5	E475	20	mg/kg	1250 mg/kg	104	80.0	120	----
Strontium	7440-24-6	E475	0.1	mg/kg	6.25 mg/kg	113	80.0	120	----
Tellurium	13494-80-9	E475	0.02	mg/kg	2.5 mg/kg	103	80.0	120	----
Thallium	7440-28-0	E475	0.002	mg/kg	25 mg/kg	101	80.0	120	----
Tin	7440-31-5	E475	0.1	mg/kg	12.5 mg/kg	103	80.0	120	----
Uranium	7440-61-1	E475	0.002	mg/kg	0.125 mg/kg	103	80.0	120	----
Vanadium	7440-62-2	E475	0.1	mg/kg	12.5 mg/kg	104	80.0	120	----
Zinc	7440-66-6	E475	1	mg/kg	12.5 mg/kg	96.4	80.0	120	----
Zirconium	7440-67-7	E475	0.2	mg/kg	2.5 mg/kg	110	80.0	120	----
Metals (QCLot: 1281482)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	92.2	80.0	120	----
Metals (QCLot: 1281483)									
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	20 mg/kg wwt	107	80.0	120	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	10 mg/kg wwt	105	80.0	120	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	10 mg/kg wwt	108	80.0	120	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	107	80.0	120	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	1 mg/kg wwt	99.9	80.0	120	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	10 mg/kg wwt	97.5	80.0	120	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	10 mg/kg wwt	98.5	80.0	120	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	1 mg/kg wwt	102	80.0	120	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	500 mg/kg wwt	102	80.0	120	----
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	0.5 mg/kg wwt	107	80.0	120	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	105	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1281483) - continued									
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	103	80.0	120	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	2.5 mg/kg wwt	101	80.0	120	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	10 mg/kg wwt	104	80.0	120	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	5 mg/kg wwt	101	80.0	120	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	2.5 mg/kg wwt	104	80.0	120	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	500 mg/kg wwt	105	80.0	120	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	106	80.0	120	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	105	80.0	120	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	5 mg/kg wwt	102	80.0	120	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	100 mg/kg wwt	113	80.0	120	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	500 mg/kg wwt	104	80.0	120	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	1 mg/kg wwt	105	80.0	120	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	10 mg/kg wwt	103	80.0	120	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	500 mg/kg wwt	104	80.0	120	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	107	80.0	120	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	1 mg/kg wwt	103	80.0	120	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	10 mg/kg wwt	96.5	80.0	120	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	5 mg/kg wwt	105	80.0	120	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	0.05 mg/kg wwt	97.2	80.0	120	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	5 mg/kg wwt	107	80.0	120	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	5 mg/kg wwt	102	80.0	120	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	1 mg/kg wwt	104	80.0	120	----
Metals (QCLot: 1281484)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	107	80.0	120	----
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	105	80.0	120	----
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	108	80.0	120	----
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	107	80.0	120	----
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	99.9	80.0	120	----
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	97.5	80.0	120	----
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	98.5	80.0	120	----
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	102	80.0	120	----
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	102	80.0	120	----
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	107	80.0	120	----
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	105	80.0	120	----
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	103	80.0	120	----
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	101	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1281484) - continued									
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	104	80.0	120	----
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	101	80.0	120	----
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	104	80.0	120	----
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	105	80.0	120	----
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	106	80.0	120	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	105	80.0	120	----
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	102	80.0	120	----
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	113	80.0	120	----
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	104	80.0	120	----
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	105	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	103	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	104	80.0	120	----
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	107	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	103	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	96.5	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	105	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	97.2	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	107	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	102	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	104	80.0	120	----
Metals (QCLot: 1281485)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	92.2	80.0	120	----
Metals (QCLot: 1281487)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	93.8	80.0	120	----
Metals (QCLot: 1281488)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	93.8	80.0	120	----
Metals (QCLot: 1281489)									
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	20 mg/kg wwt	104	80.0	120	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	10 mg/kg wwt	104	80.0	120	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	10 mg/kg wwt	109	80.0	120	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	103	80.0	120	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	1 mg/kg wwt	99.5	80.0	120	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	10 mg/kg wwt	98.8	80.0	120	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	10 mg/kg wwt	100	80.0	120	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	1 mg/kg wwt	102	80.0	120	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	500 mg/kg wwt	104	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1281489) - continued									
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	0.5 mg/kg wwt	105	80.0	120	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	104	80.0	120	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	103	80.0	120	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	2.5 mg/kg wwt	101	80.0	120	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	10 mg/kg wwt	103	80.0	120	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	5 mg/kg wwt	104	80.0	120	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	2.5 mg/kg wwt	107	80.0	120	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	500 mg/kg wwt	102	80.0	120	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	105	80.0	120	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	104	80.0	120	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	5 mg/kg wwt	102	80.0	120	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	100 mg/kg wwt	109	80.0	120	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	500 mg/kg wwt	104	80.0	120	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	1 mg/kg wwt	106	80.0	120	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	10 mg/kg wwt	103	80.0	120	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	500 mg/kg wwt	101	80.0	120	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	108	80.0	120	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	1 mg/kg wwt	103	80.0	120	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	10 mg/kg wwt	100	80.0	120	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	5 mg/kg wwt	104	80.0	120	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	0.05 mg/kg wwt	101	80.0	120	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	5 mg/kg wwt	106	80.0	120	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	5 mg/kg wwt	101	80.0	120	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	1 mg/kg wwt	101	80.0	120	----
Metals (QCLot: 1281490)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	104	80.0	120	----
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	104	80.0	120	----
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	109	80.0	120	----
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	103	80.0	120	----
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	99.5	80.0	120	----
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	98.8	80.0	120	----
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	100	80.0	120	----
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	102	80.0	120	----
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	104	80.0	120	----
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	105	80.0	120	----
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	104	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Metals (QCLot: 1281490) - continued									
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	103	80.0	120	----
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	101	80.0	120	----
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	103	80.0	120	----
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	104	80.0	120	----
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	107	80.0	120	----
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	102	80.0	120	----
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	105	80.0	120	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	104	80.0	120	----
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	102	80.0	120	----
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	109	80.0	120	----
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	104	80.0	120	----
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	106	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	103	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	101	80.0	120	----
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	108	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	103	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	100	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	104	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	101	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	106	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	101	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	101	80.0	120	----
Metals (QCLot: 1281494)									
Mercury	7439-97-6	E510A	0.001	mg/kg wwt	0.02 mg/kg wwt	92.8	80.0	120	----
Metals (QCLot: 1281495)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.02 mg/kg	92.8	80.0	120	----
Metals (QCLot: 1281496)									
Aluminum	7429-90-5	E440A	0.4	mg/kg wwt	20 mg/kg wwt	108	80.0	120	----
Antimony	7440-36-0	E440A	0.002	mg/kg wwt	10 mg/kg wwt	105	80.0	120	----
Arsenic	7440-38-2	E440A	0.004	mg/kg wwt	10 mg/kg wwt	112	80.0	120	----
Barium	7440-39-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	109	80.0	120	----
Beryllium	7440-41-7	E440A	0.002	mg/kg wwt	1 mg/kg wwt	100	80.0	120	----
Bismuth	7440-69-9	E440A	0.002	mg/kg wwt	10 mg/kg wwt	100	80.0	120	----
Boron	7440-42-8	E440A	0.2	mg/kg wwt	10 mg/kg wwt	94.9	80.0	120	----
Cadmium	7440-43-9	E440A	0.001	mg/kg wwt	1 mg/kg wwt	104	80.0	120	----
Calcium	7440-70-2	E440A	4	mg/kg wwt	500 mg/kg wwt	103	80.0	120	----

Sub-Matrix: **Biota**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1281496) - continued									
Cesium	7440-46-2	E440A	0.001	mg/kg wwt	0.5 mg/kg wwt	106	80.0	120	----
Chromium	7440-47-3	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	108	80.0	120	----
Cobalt	7440-48-4	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	106	80.0	120	----
Copper	7440-50-8	E440A	0.02	mg/kg wwt	2.5 mg/kg wwt	104	80.0	120	----
Iron	7439-89-6	E440A	0.6	mg/kg wwt	10 mg/kg wwt	106	80.0	120	----
Lead	7439-92-1	E440A	0.004	mg/kg wwt	5 mg/kg wwt	104	80.0	120	----
Lithium	7439-93-2	E440A	0.1	mg/kg wwt	2.5 mg/kg wwt	103	80.0	120	----
Magnesium	7439-95-4	E440A	0.4	mg/kg wwt	500 mg/kg wwt	108	80.0	120	----
Manganese	7439-96-5	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	108	80.0	120	----
Molybdenum	7439-98-7	E440A	0.004	mg/kg wwt	2.5 mg/kg wwt	106	80.0	120	----
Nickel	7440-02-0	E440A	0.04	mg/kg wwt	5 mg/kg wwt	105	80.0	120	----
Phosphorus	7723-14-0	E440A	2	mg/kg wwt	100 mg/kg wwt	114	80.0	120	----
Potassium	7440-09-7	E440A	4	mg/kg wwt	500 mg/kg wwt	106	80.0	120	----
Rubidium	7440-17-7	E440A	0.01	mg/kg wwt	1 mg/kg wwt	107	80.0	120	----
Selenium	7782-49-2	E440A	0.01	mg/kg wwt	10 mg/kg wwt	107	80.0	120	----
Sodium	7440-23-5	E440A	4	mg/kg wwt	500 mg/kg wwt	104	80.0	120	----
Strontium	7440-24-6	E440A	0.01	mg/kg wwt	2.5 mg/kg wwt	109	80.0	120	----
Tellurium	13494-80-9	E440A	0.004	mg/kg wwt	1 mg/kg wwt	102	80.0	120	----
Thallium	7440-28-0	E440A	0.0004	mg/kg wwt	10 mg/kg wwt	99.2	80.0	120	----
Tin	7440-31-5	E440A	0.02	mg/kg wwt	5 mg/kg wwt	103	80.0	120	----
Uranium	7440-61-1	E440A	0.0004	mg/kg wwt	0.05 mg/kg wwt	101	80.0	120	----
Vanadium	7440-62-2	E440A	0.02	mg/kg wwt	5 mg/kg wwt	110	80.0	120	----
Zinc	7440-66-6	E440A	0.1	mg/kg wwt	5 mg/kg wwt	104	80.0	120	----
Zirconium	7440-67-7	E440A	0.04	mg/kg wwt	1 mg/kg wwt	103	80.0	120	----
Metals (QCLot: 1281500)									
Aluminum	7429-90-5	E440	2	mg/kg	20 mg/kg	108	80.0	120	----
Antimony	7440-36-0	E440	0.01	mg/kg	10 mg/kg	105	80.0	120	----
Arsenic	7440-38-2	E440	0.02	mg/kg	10 mg/kg	112	80.0	120	----
Barium	7440-39-3	E440	0.05	mg/kg	2.5 mg/kg	109	80.0	120	----
Beryllium	7440-41-7	E440	0.01	mg/kg	1 mg/kg	100	80.0	120	----
Bismuth	7440-69-9	E440	0.01	mg/kg	10 mg/kg	100	80.0	120	----
Boron	7440-42-8	E440	1	mg/kg	10 mg/kg	94.9	80.0	120	----
Cadmium	7440-43-9	E440	0.005	mg/kg	1 mg/kg	104	80.0	120	----
Calcium	7440-70-2	E440	20	mg/kg	500 mg/kg	103	80.0	120	----
Cesium	7440-46-2	E440	0.005	mg/kg	0.5 mg/kg	106	80.0	120	----
Chromium	7440-47-3	E440	0.05	mg/kg	2.5 mg/kg	108	80.0	120	----

Sub-Matrix: **Biota**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1281500) - continued									
Cobalt	7440-48-4	E440	0.02	mg/kg	2.5 mg/kg	106	80.0	120	----
Copper	7440-50-8	E440	0.1	mg/kg	2.5 mg/kg	104	80.0	120	----
Iron	7439-89-6	E440	3	mg/kg	10 mg/kg	106	80.0	120	----
Lead	7439-92-1	E440	0.02	mg/kg	5 mg/kg	104	80.0	120	----
Lithium	7439-93-2	E440	0.5	mg/kg	2.5 mg/kg	103	80.0	120	----
Magnesium	7439-95-4	E440	2	mg/kg	500 mg/kg	108	80.0	120	----
Manganese	7439-96-5	E440	0.05	mg/kg	2.5 mg/kg	108	80.0	120	----
Molybdenum	7439-98-7	E440	0.02	mg/kg	2.5 mg/kg	106	80.0	120	----
Nickel	7440-02-0	E440	0.2	mg/kg	5 mg/kg	105	80.0	120	----
Phosphorus	7723-14-0	E440	10	mg/kg	100 mg/kg	114	80.0	120	----
Potassium	7440-09-7	E440	20	mg/kg	500 mg/kg	106	80.0	120	----
Rubidium	7440-17-7	E440	0.05	mg/kg	1 mg/kg	107	80.0	120	----
Selenium	7782-49-2	E440	0.05	mg/kg	10 mg/kg	107	80.0	120	----
Sodium	7440-23-5	E440	20	mg/kg	500 mg/kg	104	80.0	120	----
Strontium	7440-24-6	E440	0.05	mg/kg	2.5 mg/kg	109	80.0	120	----
Tellurium	13494-80-9	E440	0.02	mg/kg	1 mg/kg	102	80.0	120	----
Thallium	7440-28-0	E440	0.002	mg/kg	10 mg/kg	99.2	80.0	120	----
Tin	7440-31-5	E440	0.1	mg/kg	5 mg/kg	103	80.0	120	----
Uranium	7440-61-1	E440	0.002	mg/kg	0.05 mg/kg	101	80.0	120	----
Vanadium	7440-62-2	E440	0.1	mg/kg	5 mg/kg	110	80.0	120	----
Zinc	7440-66-6	E440	0.5	mg/kg	5 mg/kg	104	80.0	120	----
Zirconium	7440-67-7	E440	0.2	mg/kg	1 mg/kg	103	80.0	120	----

Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

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: 1276740)									
	RM	Aluminum	7429-90-5	E472A	147 mg/kg wwt	88.7	70.0	130	----
	RM	Arsenic	7440-38-2	E472A	14.5 mg/kg wwt	91.4	70.0	130	----
	RM	Barium	7440-39-3	E472A	0.352 mg/kg wwt	102	70.0	130	----
	RM	Boron	7440-42-8	E472A	3.47 mg/kg wwt	92.2	70.0	130	----
	RM	Cadmium	7440-43-9	E472A	0.153 mg/kg wwt	92.4	70.0	130	----
	RM	Calcium	7440-70-2	E472A	2010 mg/kg wwt	110	70.0	130	----
	RM	Cesium	7440-46-2	E472A	0.0889 mg/kg wwt	90.9	70.0	130	----
	RM	Chromium	7440-47-3	E472A	0.453 mg/kg wwt	87.6	50.0	150	----
	RM	Cobalt	7440-48-4	E472A	0.0567 mg/kg wwt	88.6	65.0	135	----
	RM	Copper	7440-50-8	E472A	3.3 mg/kg wwt	88.0	70.0	130	----
	RM	Iron	7439-89-6	E472A	102 mg/kg wwt	91.4	70.0	130	----
	RM	Lead	7439-92-1	E472A	0.058 mg/kg wwt	102	15.0	185	----
	RM	Magnesium	7439-95-4	E472A	899 mg/kg wwt	93.7	70.0	130	----
	RM	Manganese	7439-96-5	E472A	0.948 mg/kg wwt	94.9	70.0	130	----
	RM	Molybdenum	7439-98-7	E472A	0.134 mg/kg wwt	91.7	70.0	130	----
	RM	Nickel	7440-02-0	E472A	0.33 mg/kg wwt	85.2	40.0	160	----
	RM	Phosphorus	7723-14-0	E472A	6700 mg/kg wwt	101	70.0	130	----
	RM	Potassium	7440-09-7	E472A	11600 mg/kg wwt	97.8	70.0	130	----
	RM	Rubidium	7440-17-7	E472A	2.53 mg/kg wwt	93.8	70.0	130	----
	RM	Selenium	7782-49-2	E472A	2.48 mg/kg wwt	94.4	70.0	130	----
	RM	Sodium	7440-23-5	E472A	9620 mg/kg wwt	94.2	70.0	130	----
	RM	Strontium	7440-24-6	E472A	10.6 mg/kg wwt	96.7	70.0	130	----
	RM	Vanadium	7440-62-2	E472A	0.269 mg/kg wwt	87.5	70.0	130	----
	RM	Zinc	7440-66-6	E472A	28.7 mg/kg wwt	93.2	70.0	130	----
Metals (QCLot: 1276741)									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	107	70.0	130	----
Metals (QCLot: 1276742)									

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: 1276742) - continued									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	107	70.0	130	----
Metals (QCLot: 1276743)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	88.7	70.0	130	----
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	91.4	70.0	130	----
	RM	Barium	7440-39-3	E472	0.352 mg/kg	102	70.0	130	----
	RM	Boron	7440-42-8	E472	3.47 mg/kg	92.2	70.0	130	----
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	92.4	70.0	130	----
	RM	Calcium	7440-70-2	E472	2010 mg/kg	110	70.0	130	----
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	90.9	70.0	130	----
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	87.6	50.0	150	----
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	88.6	65.0	135	----
	RM	Copper	7440-50-8	E472	3.3 mg/kg	88.0	70.0	130	----
	RM	Iron	7439-89-6	E472	102 mg/kg	91.4	70.0	130	----
	RM	Lead	7439-92-1	E472	0.058 mg/kg	102	15.0	185	----
	RM	Magnesium	7439-95-4	E472	899 mg/kg	93.7	70.0	130	----
	RM	Manganese	7439-96-5	E472	0.948 mg/kg	94.9	70.0	130	----
	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	91.7	70.0	130	----
	RM	Nickel	7440-02-0	E472	0.33 mg/kg	85.2	40.0	160	----
	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	101	70.0	130	----
	RM	Potassium	7440-09-7	E472	11600 mg/kg	97.8	70.0	130	----
	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	93.8	70.0	130	----
	RM	Selenium	7782-49-2	E472	2.48 mg/kg	94.4	70.0	130	----
	RM	Sodium	7440-23-5	E472	9620 mg/kg	94.2	70.0	130	----
	RM	Strontium	7440-24-6	E472	10.6 mg/kg	96.7	70.0	130	----
	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	87.5	70.0	130	----
	RM	Zinc	7440-66-6	E472	28.7 mg/kg	93.2	70.0	130	----
Metals (QCLot: 1276779)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	107	70.0	130	----
Metals (QCLot: 1276780)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	107	70.0	130	----
Metals (QCLot: 1276781)									

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: 1276781) - continued									
	RM	Aluminum	7429-90-5	E440A	147 mg/kg wwt	99.1	70.0	130	----
	RM	Arsenic	7440-38-2	E440A	14.5 mg/kg wwt	103	70.0	130	----
	RM	Barium	7440-39-3	E440A	0.352 mg/kg wwt	101	70.0	130	----
	RM	Boron	7440-42-8	E440A	3.47 mg/kg wwt	102	70.0	130	----
	RM	Cadmium	7440-43-9	E440A	0.153 mg/kg wwt	105	70.0	130	----
	RM	Calcium	7440-70-2	E440A	2010 mg/kg wwt	99.7	70.0	130	----
	RM	Cesium	7440-46-2	E440A	0.0889 mg/kg wwt	101	70.0	130	----
	RM	Chromium	7440-47-3	E440A	0.453 mg/kg wwt	100	70.0	130	----
	RM	Cobalt	7440-48-4	E440A	0.0567 mg/kg wwt	109	65.0	135	----
	RM	Copper	7440-50-8	E440A	3.3 mg/kg wwt	101	70.0	130	----
	RM	Iron	7439-89-6	E440A	102 mg/kg wwt	101	70.0	130	----
	RM	Lead	7439-92-1	E440A	0.058 mg/kg wwt	102	70.0	130	----
	RM	Magnesium	7439-95-4	E440A	899 mg/kg wwt	102	70.0	130	----
	RM	Manganese	7439-96-5	E440A	0.948 mg/kg wwt	128	70.0	130	----
	RM	Molybdenum	7439-98-7	E440A	0.134 mg/kg wwt	108	70.0	130	----
	RM	Nickel	7440-02-0	E440A	0.33 mg/kg wwt	100	40.0	160	----
	RM	Phosphorus	7723-14-0	E440A	6700 mg/kg wwt	109	70.0	130	----
	RM	Potassium	7440-09-7	E440A	11600 mg/kg wwt	112	70.0	130	----
	RM	Rubidium	7440-17-7	E440A	2.53 mg/kg wwt	103	70.0	130	----
	RM	Selenium	7782-49-2	E440A	2.48 mg/kg wwt	108	70.0	130	----
	RM	Sodium	7440-23-5	E440A	9620 mg/kg wwt	110	70.0	130	----
	RM	Strontium	7440-24-6	E440A	10.6 mg/kg wwt	105	70.0	130	----
	RM	Vanadium	7440-62-2	E440A	0.269 mg/kg wwt	98.8	70.0	130	----
	RM	Zinc	7440-66-6	E440A	28.7 mg/kg wwt	104	70.0	130	----
Metals (QCLot: 1276782)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	99.1	70.0	130	----
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	103	70.0	130	----
	RM	Barium	7440-39-3	E440	0.352 mg/kg	101	70.0	130	----
	RM	Boron	7440-42-8	E440	3.47 mg/kg	102	70.0	130	----
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	105	70.0	130	----

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: 1276782) - continued									
	RM	Calcium	7440-70-2	E440	2010 mg/kg	99.7	70.0	130	----
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	101	70.0	130	----
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	100	70.0	130	----
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	109	65.0	135	----
	RM	Copper	7440-50-8	E440	3.3 mg/kg	101	70.0	130	----
	RM	Iron	7439-89-6	E440	102 mg/kg	101	70.0	130	----
	RM	Lead	7439-92-1	E440	0.058 mg/kg	102	70.0	130	----
	RM	Magnesium	7439-95-4	E440	899 mg/kg	102	70.0	130	----
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	128	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	108	70.0	130	----
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	100	40.0	160	----
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	109	70.0	130	----
	RM	Potassium	7440-09-7	E440	11600 mg/kg	112	70.0	130	----
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	103	70.0	130	----
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	108	70.0	130	----
	RM	Sodium	7440-23-5	E440	9620 mg/kg	110	70.0	130	----
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	105	70.0	130	----
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	98.8	70.0	130	----
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	104	70.0	130	----
Metals (QCLot: 1276864)									
	RM	Mercury	7439-97-6	E512	0.281 mg/kg	99.0	70.0	130	----
Metals (QCLot: 1276865)									
	RM	Mercury	7439-97-6	E512A	0.281 mg/kg wwt	99.0	70.0	130	----
Metals (QCLot: 1276866)									
	RM	Aluminum	7429-90-5	E475A	147 mg/kg wwt	91.1	70.0	130	----
	RM	Arsenic	7440-38-2	E475A	14.5 mg/kg wwt	96.6	70.0	130	----
	RM	Barium	7440-39-3	E475A	0.352 mg/kg wwt	92.4	70.0	130	----
	RM	Boron	7440-42-8	E475A	3.47 mg/kg wwt	90.2	70.0	130	----
	RM	Cadmium	7440-43-9	E475A	0.153 mg/kg wwt	98.8	70.0	130	----
	RM	Calcium	7440-70-2	E475A	2010 mg/kg wwt	91.9	70.0	130	----
	RM	Cesium	7440-46-2	E475A	0.0889 mg/kg wwt	94.2	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: 1276866) - continued									
	RM	Chromium	7440-47-3	E475A	0.453 mg/kg wwt	92.5	50.0	150	----
	RM	Cobalt	7440-48-4	E475A	0.0567 mg/kg wwt	100	65.0	135	----
	RM	Copper	7440-50-8	E475A	3.3 mg/kg wwt	93.4	70.0	130	----
	RM	Iron	7439-89-6	E475A	102 mg/kg wwt	97.5	70.0	130	----
	RM	Lead	7439-92-1	E475A	0.058 mg/kg wwt	107	15.0	185	----
	RM	Magnesium	7439-95-4	E475A	899 mg/kg wwt	95.2	70.0	130	----
	RM	Manganese	7439-96-5	E475A	0.948 mg/kg wwt	98.7	70.0	130	----
	RM	Molybdenum	7439-98-7	E475A	0.134 mg/kg wwt	99.1	70.0	130	----
	RM	Nickel	7440-02-0	E475A	0.33 mg/kg wwt	90.1	40.0	160	----
	RM	Phosphorus	7723-14-0	E475A	6700 mg/kg wwt	100	70.0	130	----
	RM	Potassium	7440-09-7	E475A	11600 mg/kg wwt	100	70.0	130	----
	RM	Rubidium	7440-17-7	E475A	2.53 mg/kg wwt	97.7	70.0	130	----
	RM	Selenium	7782-49-2	E475A	2.48 mg/kg wwt	99.9	70.0	130	----
	RM	Sodium	7440-23-5	E475A	9620 mg/kg wwt	96.9	70.0	130	----
	RM	Strontium	7440-24-6	E475A	10.6 mg/kg wwt	97.1	70.0	130	----
	RM	Vanadium	7440-62-2	E475A	0.269 mg/kg wwt	90.3	70.0	130	----
	RM	Zinc	7440-66-6	E475A	28.7 mg/kg wwt	96.8	70.0	130	----
Metals (QCLot: 1276867)									
	RM	Aluminum	7429-90-5	E475	147 mg/kg	91.1	70.0	130	----
	RM	Arsenic	7440-38-2	E475	14.5 mg/kg	96.6	70.0	130	----
	RM	Barium	7440-39-3	E475	0.352 mg/kg	92.4	70.0	130	----
	RM	Boron	7440-42-8	E475	3.47 mg/kg	90.2	70.0	130	----
	RM	Cadmium	7440-43-9	E475	0.153 mg/kg	98.8	70.0	130	----
	RM	Calcium	7440-70-2	E475	2010 mg/kg	91.9	70.0	130	----
	RM	Cesium	7440-46-2	E475	0.0889 mg/kg	94.2	70.0	130	----
	RM	Chromium	7440-47-3	E475	0.453 mg/kg	92.5	50.0	150	----
	RM	Cobalt	7440-48-4	E475	0.0567 mg/kg	100	65.0	135	----
	RM	Copper	7440-50-8	E475	3.3 mg/kg	93.4	70.0	130	----
	RM	Iron	7439-89-6	E475	102 mg/kg	97.5	70.0	130	----
	RM	Lead	7439-92-1	E475	0.058 mg/kg	107	15.0	185	----
	RM	Magnesium	7439-95-4	E475	899 mg/kg	95.2	70.0	130	----

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: 1276867) - continued									
	RM	Manganese	7439-96-5	E475	0.948 mg/kg	98.7	70.0	130	----
	RM	Molybdenum	7439-98-7	E475	0.134 mg/kg	99.1	70.0	130	----
	RM	Nickel	7440-02-0	E475	0.33 mg/kg	90.1	40.0	160	----
	RM	Phosphorus	7723-14-0	E475	6700 mg/kg	100	70.0	130	----
	RM	Potassium	7440-09-7	E475	11600 mg/kg	100	70.0	130	----
	RM	Rubidium	7440-17-7	E475	2.53 mg/kg	97.7	70.0	130	----
	RM	Selenium	7782-49-2	E475	2.48 mg/kg	99.9	70.0	130	----
	RM	Sodium	7440-23-5	E475	9620 mg/kg	96.9	70.0	130	----
	RM	Strontium	7440-24-6	E475	10.6 mg/kg	97.1	70.0	130	----
	RM	Vanadium	7440-62-2	E475	0.269 mg/kg	90.3	70.0	130	----
	RM	Zinc	7440-66-6	E475	28.7 mg/kg	96.8	70.0	130	----
Metals (QCLot: 1276874)									
	RM	Aluminum	7429-90-5	E472A	147 mg/kg wwt	98.3	70.0	130	----
	RM	Arsenic	7440-38-2	E472A	14.5 mg/kg wwt	101	70.0	130	----
	RM	Barium	7440-39-3	E472A	0.352 mg/kg wwt	104	70.0	130	----
	RM	Boron	7440-42-8	E472A	3.47 mg/kg wwt	92.0	70.0	130	----
	RM	Cadmium	7440-43-9	E472A	0.153 mg/kg wwt	101	70.0	130	----
	RM	Calcium	7440-70-2	E472A	2010 mg/kg wwt	103	70.0	130	----
	RM	Cesium	7440-46-2	E472A	0.0889 mg/kg wwt	97.9	70.0	130	----
	RM	Chromium	7440-47-3	E472A	0.453 mg/kg wwt	95.5	50.0	150	----
	RM	Cobalt	7440-48-4	E472A	0.0567 mg/kg wwt	101	65.0	135	----
	RM	Copper	7440-50-8	E472A	3.3 mg/kg wwt	96.5	70.0	130	----
	RM	Iron	7439-89-6	E472A	102 mg/kg wwt	104	70.0	130	----
	RM	Lead	7439-92-1	E472A	0.058 mg/kg wwt	101	15.0	185	----
	RM	Magnesium	7439-95-4	E472A	899 mg/kg wwt	100	70.0	130	----
	RM	Manganese	7439-96-5	E472A	0.948 mg/kg wwt	105	70.0	130	----
	RM	Molybdenum	7439-98-7	E472A	0.134 mg/kg wwt	101	70.0	130	----
	RM	Nickel	7440-02-0	E472A	0.33 mg/kg wwt	94.8	40.0	160	----
	RM	Phosphorus	7723-14-0	E472A	6700 mg/kg wwt	108	70.0	130	----
	RM	Potassium	7440-09-7	E472A	11600 mg/kg wwt	106	70.0	130	----

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: 1276874) - continued									
	RM	Rubidium	7440-17-7	E472A	2.53 mg/kg wwt	102	70.0	130	----
	RM	Selenium	7782-49-2	E472A	2.48 mg/kg wwt	103	70.0	130	----
	RM	Sodium	7440-23-5	E472A	9620 mg/kg wwt	102	70.0	130	----
	RM	Strontium	7440-24-6	E472A	10.6 mg/kg wwt	104	70.0	130	----
	RM	Vanadium	7440-62-2	E472A	0.269 mg/kg wwt	96.7	70.0	130	----
	RM	Zinc	7440-66-6	E472A	28.7 mg/kg wwt	101	70.0	130	----
Metals (QCLot: 1276875)									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	102	70.0	130	----
Metals (QCLot: 1276876)									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	102	70.0	130	----
Metals (QCLot: 1276877)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	98.3	70.0	130	----
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	101	70.0	130	----
	RM	Barium	7440-39-3	E472	0.352 mg/kg	104	70.0	130	----
	RM	Boron	7440-42-8	E472	3.47 mg/kg	92.0	70.0	130	----
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	101	70.0	130	----
	RM	Calcium	7440-70-2	E472	2010 mg/kg	103	70.0	130	----
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	97.9	70.0	130	----
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	95.5	50.0	150	----
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	101	65.0	135	----
	RM	Copper	7440-50-8	E472	3.3 mg/kg	96.5	70.0	130	----
	RM	Iron	7439-89-6	E472	102 mg/kg	104	70.0	130	----
	RM	Lead	7439-92-1	E472	0.058 mg/kg	101	15.0	185	----
	RM	Magnesium	7439-95-4	E472	899 mg/kg	100	70.0	130	----
	RM	Manganese	7439-96-5	E472	0.948 mg/kg	105	70.0	130	----
	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	101	70.0	130	----
	RM	Nickel	7440-02-0	E472	0.33 mg/kg	94.8	40.0	160	----
	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	108	70.0	130	----
	RM	Potassium	7440-09-7	E472	11600 mg/kg	106	70.0	130	----
	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	102	70.0	130	----
	RM	Selenium	7782-49-2	E472	2.48 mg/kg	103	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: 1276877) - continued									
	RM	Sodium	7440-23-5	E472	9620 mg/kg	102	70.0	130	----
	RM	Strontium	7440-24-6	E472	10.6 mg/kg	104	70.0	130	----
	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	96.7	70.0	130	----
	RM	Zinc	7440-66-6	E472	28.7 mg/kg	101	70.0	130	----
Metals (QCLot: 1276890)									
	RM	Aluminum	7429-90-5	E472A	147 mg/kg wwt	87.7	70.0	130	----
	RM	Arsenic	7440-38-2	E472A	14.5 mg/kg wwt	88.5	70.0	130	----
	RM	Barium	7440-39-3	E472A	0.352 mg/kg wwt	79.3	70.0	130	----
	RM	Boron	7440-42-8	E472A	3.47 mg/kg wwt	92.4	70.0	130	----
	RM	Cadmium	7440-43-9	E472A	0.153 mg/kg wwt	90.9	70.0	130	----
	RM	Calcium	7440-70-2	E472A	2010 mg/kg wwt	87.4	70.0	130	----
	RM	Cesium	7440-46-2	E472A	0.0889 mg/kg wwt	90.4	70.0	130	----
	RM	Chromium	7440-47-3	E472A	0.453 mg/kg wwt	78.5	50.0	150	----
	RM	Cobalt	7440-48-4	E472A	0.0567 mg/kg wwt	86.5	65.0	135	----
	RM	Copper	7440-50-8	E472A	3.3 mg/kg wwt	84.8	70.0	130	----
	RM	Iron	7439-89-6	E472A	102 mg/kg wwt	90.2	70.0	130	----
	RM	Lead	7439-92-1	E472A	0.058 mg/kg wwt	88.6	15.0	185	----
	RM	Magnesium	7439-95-4	E472A	899 mg/kg wwt	89.1	70.0	130	----
	RM	Manganese	7439-96-5	E472A	0.948 mg/kg wwt	88.1	70.0	130	----
	RM	Molybdenum	7439-98-7	E472A	0.134 mg/kg wwt	93.1	70.0	130	----
	RM	Nickel	7440-02-0	E472A	0.33 mg/kg wwt	81.2	40.0	160	----
	RM	Phosphorus	7723-14-0	E472A	6700 mg/kg wwt	94.1	70.0	130	----
	RM	Potassium	7440-09-7	E472A	11600 mg/kg wwt	93.9	70.0	130	----
	RM	Rubidium	7440-17-7	E472A	2.53 mg/kg wwt	87.6	70.0	130	----
	RM	Selenium	7782-49-2	E472A	2.48 mg/kg wwt	93.2	70.0	130	----
	RM	Sodium	7440-23-5	E472A	9620 mg/kg wwt	92.0	70.0	130	----
	RM	Strontium	7440-24-6	E472A	10.6 mg/kg wwt	95.0	70.0	130	----
	RM	Vanadium	7440-62-2	E472A	0.269 mg/kg wwt	85.0	70.0	130	----
	RM	Zinc	7440-66-6	E472A	28.7 mg/kg wwt	87.2	70.0	130	----
Metals (QCLot: 1276891)									

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: 1276891) - continued									
	RM	Mercury	7439-97-6	E511	0.281 mg/kg	96.4	70.0	130	----
Metals (QCLot: 1276892)									
	RM	Mercury	7439-97-6	E511A	0.281 mg/kg wwt	96.4	70.0	130	----
Metals (QCLot: 1276893)									
	RM	Aluminum	7429-90-5	E472	147 mg/kg	87.7	70.0	130	----
	RM	Arsenic	7440-38-2	E472	14.5 mg/kg	88.5	70.0	130	----
	RM	Barium	7440-39-3	E472	0.352 mg/kg	79.3	70.0	130	----
	RM	Boron	7440-42-8	E472	3.47 mg/kg	92.4	70.0	130	----
	RM	Cadmium	7440-43-9	E472	0.153 mg/kg	90.9	70.0	130	----
	RM	Calcium	7440-70-2	E472	2010 mg/kg	87.4	70.0	130	----
	RM	Cesium	7440-46-2	E472	0.0889 mg/kg	90.4	70.0	130	----
	RM	Chromium	7440-47-3	E472	0.453 mg/kg	78.5	50.0	150	----
	RM	Cobalt	7440-48-4	E472	0.0567 mg/kg	86.5	65.0	135	----
	RM	Copper	7440-50-8	E472	3.3 mg/kg	84.8	70.0	130	----
	RM	Iron	7439-89-6	E472	102 mg/kg	90.2	70.0	130	----
	RM	Lead	7439-92-1	E472	0.058 mg/kg	88.6	15.0	185	----
	RM	Magnesium	7439-95-4	E472	899 mg/kg	89.1	70.0	130	----
	RM	Manganese	7439-96-5	E472	0.948 mg/kg	88.1	70.0	130	----
	RM	Molybdenum	7439-98-7	E472	0.134 mg/kg	93.1	70.0	130	----
	RM	Nickel	7440-02-0	E472	0.33 mg/kg	81.2	40.0	160	----
	RM	Phosphorus	7723-14-0	E472	6700 mg/kg	94.1	70.0	130	----
	RM	Potassium	7440-09-7	E472	11600 mg/kg	93.9	70.0	130	----
	RM	Rubidium	7440-17-7	E472	2.53 mg/kg	87.6	70.0	130	----
	RM	Selenium	7782-49-2	E472	2.48 mg/kg	93.2	70.0	130	----
	RM	Sodium	7440-23-5	E472	9620 mg/kg	92.0	70.0	130	----
	RM	Strontium	7440-24-6	E472	10.6 mg/kg	95.0	70.0	130	----
	RM	Vanadium	7440-62-2	E472	0.269 mg/kg	85.0	70.0	130	----
	RM	Zinc	7440-66-6	E472	28.7 mg/kg	87.2	70.0	130	----
Metals (QCLot: 1276917)									
	RM	Mercury	7439-97-6	E512	0.281 mg/kg	107	70.0	130	----
Metals (QCLot: 1276918)									

Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Reference Material (RM) Report: Recovery (%) RM	Reference Material (RM) Report: Recovery Limits (%) Low	Reference Material (RM) Report: Recovery Limits (%) High	Reference Material (RM) Report: Qualifier
Metals (QCLot: 1276918) - continued									
	RM	Mercury	7439-97-6	E512A	0.281 mg/kg wwt	107	70.0	130	----
Metals (QCLot: 1276919)									
	RM	Aluminum	7429-90-5	E475A	147 mg/kg wwt	86.1	70.0	130	----
	RM	Arsenic	7440-38-2	E475A	14.5 mg/kg wwt	94.6	70.0	130	----
	RM	Barium	7440-39-3	E475A	0.352 mg/kg wwt	84.4	70.0	130	----
	RM	Boron	7440-42-8	E475A	3.47 mg/kg wwt	91.8	70.0	130	----
	RM	Cadmium	7440-43-9	E475A	0.153 mg/kg wwt	94.9	70.0	130	----
	RM	Calcium	7440-70-2	E475A	2010 mg/kg wwt	90.2	70.0	130	----
	RM	Cesium	7440-46-2	E475A	0.0889 mg/kg wwt	91.1	70.0	130	----
	RM	Chromium	7440-47-3	E475A	0.453 mg/kg wwt	88.8	50.0	150	----
	RM	Cobalt	7440-48-4	E475A	0.0567 mg/kg wwt	94.2	65.0	135	----
	RM	Copper	7440-50-8	E475A	3.3 mg/kg wwt	90.3	70.0	130	----
	RM	Iron	7439-89-6	E475A	102 mg/kg wwt	94.6	70.0	130	----
	RM	Lead	7439-92-1	E475A	0.058 mg/kg wwt	93.2	15.0	185	----
	RM	Magnesium	7439-95-4	E475A	899 mg/kg wwt	93.7	70.0	130	----
	RM	Manganese	7439-96-5	E475A	0.948 mg/kg wwt	94.5	70.0	130	----
	RM	Molybdenum	7439-98-7	E475A	0.134 mg/kg wwt	95.8	70.0	130	----
	RM	Nickel	7440-02-0	E475A	0.33 mg/kg wwt	86.2	40.0	160	----
	RM	Phosphorus	7723-14-0	E475A	6700 mg/kg wwt	98.5	70.0	130	----
	RM	Potassium	7440-09-7	E475A	11600 mg/kg wwt	99.4	70.0	130	----
	RM	Rubidium	7440-17-7	E475A	2.53 mg/kg wwt	93.4	70.0	130	----
	RM	Selenium	7782-49-2	E475A	2.48 mg/kg wwt	96.5	70.0	130	----
	RM	Sodium	7440-23-5	E475A	9620 mg/kg wwt	96.9	70.0	130	----
	RM	Strontium	7440-24-6	E475A	10.6 mg/kg wwt	97.6	70.0	130	----
	RM	Vanadium	7440-62-2	E475A	0.269 mg/kg wwt	89.2	70.0	130	----
	RM	Zinc	7440-66-6	E475A	28.7 mg/kg wwt	92.6	70.0	130	----
Metals (QCLot: 1276920)									
	RM	Aluminum	7429-90-5	E475	147 mg/kg	86.1	70.0	130	----
	RM	Arsenic	7440-38-2	E475	14.5 mg/kg	94.6	70.0	130	----
	RM	Barium	7440-39-3	E475	0.352 mg/kg	84.4	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: 1276920) - continued									
	RM	Boron	7440-42-8	E475	3.47 mg/kg	91.8	70.0	130	----
	RM	Cadmium	7440-43-9	E475	0.153 mg/kg	94.9	70.0	130	----
	RM	Calcium	7440-70-2	E475	2010 mg/kg	90.2	70.0	130	----
	RM	Cesium	7440-46-2	E475	0.0889 mg/kg	91.1	70.0	130	----
	RM	Chromium	7440-47-3	E475	0.453 mg/kg	88.8	50.0	150	----
	RM	Cobalt	7440-48-4	E475	0.0567 mg/kg	94.2	65.0	135	----
	RM	Copper	7440-50-8	E475	3.3 mg/kg	90.3	70.0	130	----
	RM	Iron	7439-89-6	E475	102 mg/kg	94.6	70.0	130	----
	RM	Lead	7439-92-1	E475	0.058 mg/kg	93.2	15.0	185	----
	RM	Magnesium	7439-95-4	E475	899 mg/kg	93.7	70.0	130	----
	RM	Manganese	7439-96-5	E475	0.948 mg/kg	94.5	70.0	130	----
	RM	Molybdenum	7439-98-7	E475	0.134 mg/kg	95.8	70.0	130	----
	RM	Nickel	7440-02-0	E475	0.33 mg/kg	86.2	40.0	160	----
	RM	Phosphorus	7723-14-0	E475	6700 mg/kg	98.5	70.0	130	----
	RM	Potassium	7440-09-7	E475	11600 mg/kg	99.4	70.0	130	----
	RM	Rubidium	7440-17-7	E475	2.53 mg/kg	93.4	70.0	130	----
	RM	Selenium	7782-49-2	E475	2.48 mg/kg	96.5	70.0	130	----
	RM	Sodium	7440-23-5	E475	9620 mg/kg	96.9	70.0	130	----
	RM	Strontium	7440-24-6	E475	10.6 mg/kg	97.6	70.0	130	----
	RM	Vanadium	7440-62-2	E475	0.269 mg/kg	89.2	70.0	130	----
	RM	Zinc	7440-66-6	E475	28.7 mg/kg	92.6	70.0	130	----
Metals (QCLot: 1281482)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	107	70.0	130	----
Metals (QCLot: 1281483)									
	RM	Aluminum	7429-90-5	E440A	147 mg/kg wwt	103	70.0	130	----
	RM	Arsenic	7440-38-2	E440A	14.5 mg/kg wwt	96.6	70.0	130	----
	RM	Barium	7440-39-3	E440A	0.352 mg/kg wwt	99.3	70.0	130	----
	RM	Boron	7440-42-8	E440A	3.47 mg/kg wwt	99.6	70.0	130	----
	RM	Cadmium	7440-43-9	E440A	0.153 mg/kg wwt	98.1	70.0	130	----
	RM	Calcium	7440-70-2	E440A	2010 mg/kg wwt	103	70.0	130	----
	RM	Cesium	7440-46-2	E440A	0.0889 mg/kg wwt	98.8	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: 1281483) - continued									
	RM	Chromium	7440-47-3	E440A	0.453 mg/kg wwt	98.7	70.0	130	----
	RM	Cobalt	7440-48-4	E440A	0.0567 mg/kg wwt	103	65.0	135	----
	RM	Copper	7440-50-8	E440A	3.3 mg/kg wwt	95.7	70.0	130	----
	RM	Iron	7439-89-6	E440A	102 mg/kg wwt	98.3	70.0	130	----
	RM	Lead	7439-92-1	E440A	0.058 mg/kg wwt	99.0	70.0	130	----
	RM	Magnesium	7439-95-4	E440A	899 mg/kg wwt	98.5	70.0	130	----
	RM	Manganese	7439-96-5	E440A	0.948 mg/kg wwt	98.9	70.0	130	----
	RM	Molybdenum	7439-98-7	E440A	0.134 mg/kg wwt	94.8	70.0	130	----
	RM	Nickel	7440-02-0	E440A	0.33 mg/kg wwt	95.7	40.0	160	----
	RM	Phosphorus	7723-14-0	E440A	6700 mg/kg wwt	98.9	70.0	130	----
	RM	Potassium	7440-09-7	E440A	11600 mg/kg wwt	96.4	70.0	130	----
	RM	Rubidium	7440-17-7	E440A	2.53 mg/kg wwt	97.5	70.0	130	----
	RM	Selenium	7782-49-2	E440A	2.48 mg/kg wwt	98.8	70.0	130	----
	RM	Sodium	7440-23-5	E440A	9620 mg/kg wwt	99.0	70.0	130	----
	RM	Strontium	7440-24-6	E440A	10.6 mg/kg wwt	100	70.0	130	----
	RM	Vanadium	7440-62-2	E440A	0.269 mg/kg wwt	98.6	70.0	130	----
	RM	Zinc	7440-66-6	E440A	28.7 mg/kg wwt	98.1	70.0	130	----
Metals (QCLot: 1281484)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	103	70.0	130	----
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	96.6	70.0	130	----
	RM	Barium	7440-39-3	E440	0.352 mg/kg	99.3	70.0	130	----
	RM	Boron	7440-42-8	E440	3.47 mg/kg	99.6	70.0	130	----
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	98.1	70.0	130	----
	RM	Calcium	7440-70-2	E440	2010 mg/kg	103	70.0	130	----
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	98.8	70.0	130	----
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	98.7	70.0	130	----
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	103	65.0	135	----
	RM	Copper	7440-50-8	E440	3.3 mg/kg	95.7	70.0	130	----
	RM	Iron	7439-89-6	E440	102 mg/kg	98.3	70.0	130	----
	RM	Lead	7439-92-1	E440	0.058 mg/kg	99.0	70.0	130	----
	RM	Magnesium	7439-95-4	E440	899 mg/kg	98.5	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: 1281484) - continued									
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	98.9	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	94.8	70.0	130	----
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	95.7	40.0	160	----
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	98.9	70.0	130	----
	RM	Potassium	7440-09-7	E440	11600 mg/kg	96.4	70.0	130	----
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	97.5	70.0	130	----
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	98.8	70.0	130	----
	RM	Sodium	7440-23-5	E440	9620 mg/kg	99.0	70.0	130	----
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	100	70.0	130	----
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	98.6	70.0	130	----
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	98.1	70.0	130	----
Metals (QCLot: 1281485)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	107	70.0	130	----
Metals (QCLot: 1281487)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	103	70.0	130	----
Metals (QCLot: 1281488)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	103	70.0	130	----
Metals (QCLot: 1281489)									
	RM	Aluminum	7429-90-5	E440A	147 mg/kg wwt	96.3	70.0	130	----
	RM	Arsenic	7440-38-2	E440A	14.5 mg/kg wwt	90.7	70.0	130	----
	RM	Barium	7440-39-3	E440A	0.352 mg/kg wwt	88.8	70.0	130	----
	RM	Boron	7440-42-8	E440A	3.47 mg/kg wwt	98.1	70.0	130	----
	RM	Cadmium	7440-43-9	E440A	0.153 mg/kg wwt	90.6	70.0	130	----
	RM	Calcium	7440-70-2	E440A	2010 mg/kg wwt	93.3	70.0	130	----
	RM	Cesium	7440-46-2	E440A	0.0889 mg/kg wwt	96.2	70.0	130	----
	RM	Chromium	7440-47-3	E440A	0.453 mg/kg wwt	94.6	70.0	130	----
	RM	Cobalt	7440-48-4	E440A	0.0567 mg/kg wwt	95.3	65.0	135	----
	RM	Copper	7440-50-8	E440A	3.3 mg/kg wwt	91.1	70.0	130	----
	RM	Iron	7439-89-6	E440A	102 mg/kg wwt	94.5	70.0	130	----
	RM	Lead	7439-92-1	E440A	0.058 mg/kg wwt	90.6	70.0	130	----
	RM	Magnesium	7439-95-4	E440A	899 mg/kg wwt	92.8	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: 1281489) - continued									
	RM	Manganese	7439-96-5	E440A	0.948 mg/kg wwt	94.0	70.0	130	----
	RM	Molybdenum	7439-98-7	E440A	0.134 mg/kg wwt	94.5	70.0	130	----
	RM	Nickel	7440-02-0	E440A	0.33 mg/kg wwt	93.3	40.0	160	----
	RM	Phosphorus	7723-14-0	E440A	6700 mg/kg wwt	94.0	70.0	130	----
	RM	Potassium	7440-09-7	E440A	11600 mg/kg wwt	93.3	70.0	130	----
	RM	Rubidium	7440-17-7	E440A	2.53 mg/kg wwt	95.0	70.0	130	----
	RM	Selenium	7782-49-2	E440A	2.48 mg/kg wwt	94.2	70.0	130	----
	RM	Sodium	7440-23-5	E440A	9620 mg/kg wwt	95.0	70.0	130	----
	RM	Strontium	7440-24-6	E440A	10.6 mg/kg wwt	96.4	70.0	130	----
	RM	Vanadium	7440-62-2	E440A	0.269 mg/kg wwt	94.3	70.0	130	----
	RM	Zinc	7440-66-6	E440A	28.7 mg/kg wwt	93.3	70.0	130	----
Metals (QCLot: 1281490)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	96.3	70.0	130	----
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	90.7	70.0	130	----
	RM	Barium	7440-39-3	E440	0.352 mg/kg	88.8	70.0	130	----
	RM	Boron	7440-42-8	E440	3.47 mg/kg	98.1	70.0	130	----
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	90.6	70.0	130	----
	RM	Calcium	7440-70-2	E440	2010 mg/kg	93.3	70.0	130	----
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	96.2	70.0	130	----
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	94.6	70.0	130	----
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	95.3	65.0	135	----
	RM	Copper	7440-50-8	E440	3.3 mg/kg	91.1	70.0	130	----
	RM	Iron	7439-89-6	E440	102 mg/kg	94.5	70.0	130	----
	RM	Lead	7439-92-1	E440	0.058 mg/kg	90.6	70.0	130	----
	RM	Magnesium	7439-95-4	E440	899 mg/kg	92.8	70.0	130	----
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	94.0	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	94.5	70.0	130	----
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	93.3	40.0	160	----
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	94.0	70.0	130	----
	RM	Potassium	7440-09-7	E440	11600 mg/kg	93.3	70.0	130	----
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	95.0	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: 1281490) - continued									
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	94.2	70.0	130	----
	RM	Sodium	7440-23-5	E440	9620 mg/kg	95.0	70.0	130	----
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	96.4	70.0	130	----
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	94.3	70.0	130	----
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	93.3	70.0	130	----
Metals (QCLot: 1281494)									
	RM	Mercury	7439-97-6	E510A	0.281 mg/kg wwt	95.6	70.0	130	----
Metals (QCLot: 1281495)									
	RM	Mercury	7439-97-6	E510	0.281 mg/kg	95.6	70.0	130	----
Metals (QCLot: 1281496)									
	RM	Aluminum	7429-90-5	E440A	147 mg/kg wwt	91.1	70.0	130	----
	RM	Arsenic	7440-38-2	E440A	14.5 mg/kg wwt	92.1	70.0	130	----
	RM	Barium	7440-39-3	E440A	0.352 mg/kg wwt	89.5	70.0	130	----
	RM	Boron	7440-42-8	E440A	3.47 mg/kg wwt	94.5	70.0	130	----
	RM	Cadmium	7440-43-9	E440A	0.153 mg/kg wwt	93.1	70.0	130	----
	RM	Calcium	7440-70-2	E440A	2010 mg/kg wwt	97.1	70.0	130	----
	RM	Cesium	7440-46-2	E440A	0.0889 mg/kg wwt	89.6	70.0	130	----
	RM	Chromium	7440-47-3	E440A	0.453 mg/kg wwt	90.0	70.0	130	----
	RM	Cobalt	7440-48-4	E440A	0.0567 mg/kg wwt	98.0	65.0	135	----
	RM	Copper	7440-50-8	E440A	3.3 mg/kg wwt	91.8	70.0	130	----
	RM	Iron	7439-89-6	E440A	102 mg/kg wwt	89.8	70.0	130	----
	RM	Lead	7439-92-1	E440A	0.058 mg/kg wwt	90.6	70.0	130	----
	RM	Magnesium	7439-95-4	E440A	899 mg/kg wwt	91.8	70.0	130	----
	RM	Manganese	7439-96-5	E440A	0.948 mg/kg wwt	106	70.0	130	----
	RM	Molybdenum	7439-98-7	E440A	0.134 mg/kg wwt	85.0	70.0	130	----
	RM	Nickel	7440-02-0	E440A	0.33 mg/kg wwt	93.3	40.0	160	----
	RM	Phosphorus	7723-14-0	E440A	6700 mg/kg wwt	92.8	70.0	130	----
	RM	Potassium	7440-09-7	E440A	11600 mg/kg wwt	95.7	70.0	130	----
	RM	Rubidium	7440-17-7	E440A	2.53 mg/kg wwt	94.4	70.0	130	----
	RM	Selenium	7782-49-2	E440A	2.48 mg/kg wwt	93.2	70.0	130	----
	RM	Sodium	7440-23-5	E440A	9620 mg/kg wwt	93.6	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: 1281496) - continued									
	RM	Strontium	7440-24-6	E440A	10.6 mg/kg wwt	92.9	70.0	130	----
	RM	Vanadium	7440-62-2	E440A	0.269 mg/kg wwt	91.5	70.0	130	----
	RM	Zinc	7440-66-6	E440A	28.7 mg/kg wwt	94.0	70.0	130	----
Metals (QCLot: 1281500)									
	RM	Aluminum	7429-90-5	E440	147 mg/kg	91.1	70.0	130	----
	RM	Arsenic	7440-38-2	E440	14.5 mg/kg	92.1	70.0	130	----
	RM	Barium	7440-39-3	E440	0.352 mg/kg	89.5	70.0	130	----
	RM	Boron	7440-42-8	E440	3.47 mg/kg	94.5	70.0	130	----
	RM	Cadmium	7440-43-9	E440	0.153 mg/kg	93.1	70.0	130	----
	RM	Calcium	7440-70-2	E440	2010 mg/kg	97.1	70.0	130	----
	RM	Cesium	7440-46-2	E440	0.0889 mg/kg	89.6	70.0	130	----
	RM	Chromium	7440-47-3	E440	0.453 mg/kg	90.0	70.0	130	----
	RM	Cobalt	7440-48-4	E440	0.0567 mg/kg	98.0	65.0	135	----
	RM	Copper	7440-50-8	E440	3.3 mg/kg	91.8	70.0	130	----
	RM	Iron	7439-89-6	E440	102 mg/kg	89.8	70.0	130	----
	RM	Lead	7439-92-1	E440	0.058 mg/kg	90.6	70.0	130	----
	RM	Magnesium	7439-95-4	E440	899 mg/kg	91.8	70.0	130	----
	RM	Manganese	7439-96-5	E440	0.948 mg/kg	106	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	0.134 mg/kg	85.0	70.0	130	----
	RM	Nickel	7440-02-0	E440	0.33 mg/kg	93.3	40.0	160	----
	RM	Phosphorus	7723-14-0	E440	6700 mg/kg	92.8	70.0	130	----
	RM	Potassium	7440-09-7	E440	11600 mg/kg	95.7	70.0	130	----
	RM	Rubidium	7440-17-7	E440	2.53 mg/kg	94.4	70.0	130	----
	RM	Selenium	7782-49-2	E440	2.48 mg/kg	93.2	70.0	130	----
	RM	Sodium	7440-23-5	E440	9620 mg/kg	93.6	70.0	130	----
	RM	Strontium	7440-24-6	E440	10.6 mg/kg	92.9	70.0	130	----
	RM	Vanadium	7440-62-2	E440	0.269 mg/kg	91.5	70.0	130	----
	RM	Zinc	7440-66-6	E440	28.7 mg/kg	94.0	70.0	130	----

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Page 1 of 1

Report To	Contact and company name below will appear on the final report	Report Format / Distribution	Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)
Company:	ERM Consultants Canada Ltd.	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:	Jessica Lowey, Kimberly San	Quality Control (QC) Report with Report ☑ YES ☐ NO	PRIORITY (Business Days): 4 day [P4-20%] ☐ / 3 day [P3-25%] ☐ / 2 day [P2-50%] ☐ — EMERGENCY: 1 Business day [E - 100%] ☐ / Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐
Phone:	250 520 0053, 778 554 8419	☐ Compare Results to Criteria on Report - provide details below if box checked	
	Company address below will appear on the final report	Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
Street:	#1000 - 1100 Melville Street	Email 1 or Fax jessica.lowey@erm.com	For tests that can not be performed according to the service level selected, you will be contacted.
City/Province:	Vancouver, British Columbia	Email 2 kimberly.san@erm.com	
Postal Code:	V6E 4A6	Email 3 amuttray@entiaenviro.com	
Invoice To	Same as Report To ☑ YES ☑ NO	Invoice Distribution	
	Copy of Invoice with Report ☐ YES ☑ NO	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Company:	Blackwater Gold Ltd.	Email 1 or Fax kimberly.san@erm.com	
Contact:	Mark Warbanski	Email 2 patty.vadnais@erm.com	

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	VA23-BWGL-100-005 (Blackwater)	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		ALS Contact: Amber Springer	Sampler: Sean Sharpe

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS: As per Quote VA23-BWGL-100-005	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
1	CFMP-14-RBV-1-C (C is whole carcass)	24-Sep-23		TISSUE	R		
2	CFMP-14-RBV-1-L (L is Liver from Carcass)	24-Sep-23		TISSUE	R		
3	CFMP-14-RBV-7-C	22-Sep-23		TISSUE	R		
4	CFMP-14-RBV-7-L	22-Sep-23		TISSUE	R		
5	CFMP-19-DM-12-C	23-Sep-23		TISSUE	R		
6	CFMP-19-DM-12-L	23-Sep-23		TISSUE	R		
7	CFMP-19-DM-13-C	24-Sep-23		TISSUE	R		
8	CFMP-19-DM-13-L	24-Sep-23		TISSUE	R		
9	CFMP-19-DM-14-C	24-Sep-23		TISSUE	R		
10	CFMP-19-DM-14-L	24-Sep-23		TISSUE	R		
11	CFMP-19-DM-15-C	24-Sep-23		TISSUE	R		
12	CFMP-19-DM-15-L	24-Sep-23		TISSUE	R		

Environmental Division
Vancouver
Work Order Reference
VA23C4435

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	
Are samples for human consumption/ use? ☐ YES ☑ NO	

SAMPLE CONDITION AS RECEIVED (lab use only)

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

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
			1		

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by: JC	Date: 120ct23	Time: 8500

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.

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

Coc pages 1 to 10

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6
Invoice To	Same as Report To ☑ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Blackwater Gold Ltd.
Contact:	Mark Warbanski

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	jessica.lowey@erm.com
Email 2	kimberly.san@erm.com
Email 3	amuttray@entiaenviro.com
Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	kimberly.san@erm.com
Email 2	patty.vadnais@erm.com

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	VA23-BWGL-100-005 (Blackwater)	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		ALS Contact: Amber Springer	Sampler: Sean Sharpe

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

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

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

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

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

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

Analysis Request

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

NUMBER OF CONTAINERS — As per Quote VA23-BWGL-100-005

SAMPLES ON HOLD

SUSPECTED HAZARD (see Special Instructions)

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	As per Quote VA23-BWGL-100-005	SAMPLES ON HOLD	SUSPECTED HAZARD
13	CFMP-19-DM-5-C	21-Sep-23		TISSUE		R		
14	CFMP-19-DM-5-L	21-Sep-23		TISSUE		R		
15	CFMP-19-DM-8-C	24-Sep-23		TISSUE		R		
16	CFMP-19-DM-8-L	24-Sep-23		TISSUE		R		
17	CFMP-24-DM-1-C	21-Sep-23		TISSUE		R		
18	CFMP-24-DM-1-L	21-Sep-23		TISSUE		R		
19	CFMP-24-DM-10-C	21-Sep-23		TISSUE		R		
20	CFMP-24-DM-10-L	21-Sep-23		TISSUE		R		
21	CFMP-24-DM-2-C	22-Sep-23		TISSUE		R		
22	CFMP-24-DM-2-L	22-Sep-23		TISSUE		R		
23	CFMP-24-DM-3-C	20-Sep-23		TISSUE		R		
24	CFMP-24-DM-3-L	20-Sep-23		TISSUE		R		

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

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

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

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

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by: JC	Date: 12 Oct 23	Time: 850am

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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

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

Coc pages 1 to 10

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Report To	Contact and company name below will appear on the final report	Report Format / Distribution		Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)	
Company:	ERM Consultants Canada Ltd.	Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	Regular [R]	☑ Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:	Jessica Lowey, Kimberly San	Quality Control (QC) Report with Report	☑ YES ☐ NO	PRIORITY (Business Days) 4 day [P4-20%]	☐ EMERGENCY 1 Business day [E - 100%] ☐
Phone:	250 520 0053, 778 554 8419	☐ Compare Results to Criteria on Report - provide details below if box checked		3 day [P3-25%] ☐	Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐
	Company address below will appear on the final report	Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX	2 day [P2-50%] ☐	
Street:	#1000 - 1100 Melville Street	Email 1 or Fax	jessica.lowey@erm.com	Date and Time Required for all E&P TATs:	dd-mmm-yy hh:mm
City/Province:	Vancouver, British Columbia	Email 2	kimberly.san@erm.com	For tests that can not be performed according to the service level selected, you will be contacted.	
Postal Code:	V6E 4A6	Email 3	amuttray@entiaenviro.com		
Invoice To	Same as Report To ☑ YES ☑ NO	Invoice Distribution		Analysis Request	
	Copy of Invoice with Report ☐ YES ☑ NO	Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX		
Company:	Blackwater Gold Ltd.	Email 1 or Fax	kimberly.san@erm.com		
Contact:	Mark Warbanski	Email 2	patty.vadnais@erm.com		
Project Information		Oil and Gas Required Fields (client use)			
ALS Account # / Quote #:		AFE/Cost Center:	PO#		
Job #:	VA23-BWGL-100-005 (Blackwater)	Major/Minor Code:	Routing Code:		
PO / AFE:		Requisitioner:			
LSD:		Location:			
ALS Lab Work Order # (lab use only):		ALS Contact: Amber Springer	Sampler: Sean Sharpe		

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS: As per Quote VA23-BWGL-100-005	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
25	CFMP-24-DM-3a-C	21-Sep-23		TISSUE	R			
26	CFMP-24-DM-3a-L	21-Sep-23		TISSUE	R			
27	CFMP-24-DM-5-C	22-Sep-23		TISSUE	R			
28	CFMP-24-DM-5-L	22-Sep-23		TISSUE	R			
29	CFMP-24-DM-8-C	20-Sep-23		TISSUE	R			
30	CFMP-24-DM-8-L	20-Sep-23		TISSUE	R			
31	CFMP-27-DM-1-C	24-Sep-23		TISSUE	R			
32	CFMP-27-DM-1-L	24-Sep-23		TISSUE	R			
33	CFMP-27-DM-11-C	20-Sep-23		TISSUE	R			
34	CFMP-27-DM-11-L	20-Sep-23		TISSUE	R			
35	CFMP-27-DM-11a-C	21-Sep-23		TISSUE	R			
36	CFMP-27-DM-11a-L	21-Sep-23		TISSUE	R			

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	
Are samples for human consumption/ use? ☐ YES ☑ NO	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

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

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

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

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6
Invoice To	Same as Report To ☑ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Blackwater Gold Ltd.
Contact:	Mark Warbanski

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	jessica.lowey@erm.com
Email 2	kimberly.san@erm.com
Email 3	arnuttray@entiaenviro.com

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	kimberly.san@erm.com
Email 2	patty.vadnais@erm.com

Project Information	
ALS Account # / Quote #:	
Job #:	VA23-BWGL-100-005 (Blackwater)
PO / AFE:	
LSD:	

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

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer Sampler: Sean Sharpe

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

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

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

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

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

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

Analysis Request

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS: As per Quote VA23-BWGL-100-005	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
61	CFMP-32-RBV-12a-C	21-Sep-23		TISSUE	R			
62	CFMP-32-RBV-12a-L	21-Sep-23		TISSUE	R			
63	CFMP-32-RBV-12b-C	22-Sep-23		TISSUE	R			
64	CFMP-32-RBV-12b-L	22-Sep-23		TISSUE	R			
65	CFMP-32-RBV-5-C	22-Sep-23		TISSUE	R			
66	CFMP-32-RBV-5-L	22-Sep-23		TISSUE	R			
67	CFMP-32-RBV-8-C	22-Sep-23		TISSUE	R			
68	CFMP-32-RBV-8-L	22-Sep-23		TISSUE	R			
69	CFMP-32-RBV-9-C	22-Sep-23		TISSUE	R			
70	CFMP-32-RBV-9-L	22-Sep-23		TISSUE	R			
71	CFMP-4-RBV-4-C	22-Sep-23		TISSUE	R			
72	CFMP-4-RBV-4-L	22-Sep-23		TISSUE	R			

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

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

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

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

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)		
Released by:	Date:	Time:

INITIAL SHIPMENT RECEPTION (lab use only)		
Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (lab use only)		
Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Report To	Contact and company name below will appear on the final report	Report Format / Distribution		Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)	
Company:	ERM Consultants Canada Ltd.	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)		Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply	
Contact:	Jessica Lowey, Kimberly San	Quality Control (QC) Report with Report ☑ YES ☐ NO		PRIORITY (Business Days) 4 day [P4-20%] ☐	EMERGENCY 1 Business day [E - 100%] ☐
Phone:	250 520 0053, 778 554 8419	☐ Compare Results to Criteria on Report - provide details below if box checked		3 day [P3-25%] ☐	Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐
	Company address below will appear on the final report	Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX		2 day [P2-50%] ☐	
Street:	#1000 - 1100 Melville Street	Email 1 or Fax	jessica.lowey@erm.com	Date and Time Required for all E&P TATs:	dd-mmm-yy hh:mm
City/Province:	Vancouver, British Columbia	Email 2	kimberly.san@erm.com	For tests that can not be performed according to the service level selected, you will be contacted.	
Postal Code:	V6E 4A6	Email 3	amuttray@entiaenviro.com		
Invoice To	Same as Report To ☑ YES ☑ NO	Invoice Distribution		Analysis Request	
	Copy of Invoice with Report ☐ YES ☑ NO	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX			
Company:	Blackwater Gold Ltd.	Email 1 or Fax	kimberly.san@erm.com		
Contact:	Mark Warbanski	Email 2	patty.vadnais@erm.com		
Project Information		Oil and Gas Required Fields (client use)			
ALS Account # / Quote #:		AFE/Cost Center:	PO#		
Job #:	VA23-BWGL-100-005 (Blackwater)	Major/Minor Code:	Routing Code:		
PO / AFE:		Requisitioner:			
LSD:		Location:			
ALS Lab Work Order # (lab use only):		ALS Contact: Amber Springer	Sampler: Sean Sharpe		

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS (As per Quote VA23-BWGL-100-005)	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
85	CFMP-40-RBV-11-C	24-Sep-23		TISSUE	R			
86	CFMP-40-RBV-11-L	24-Sep-23		TISSUE	R			
87	CFMP-40-RBV-8-C	22-Sep-23		TISSUE	R			
88	CFMP-40-RBV-8-L	22-Sep-23		TISSUE	R			
89	CFMP-6-DM-1-C	23-Sep-23		TISSUE	R			
90	CFMP-6-DM-1-L	23-Sep-23		TISSUE	R			
91	CFMP-6-DM-2-C	20-Sep-23		TISSUE	R			
92	CFMP-6-DM-2-L	20-Sep-23		TISSUE	R			
93	CFMP-6-DM-2a-C	21-Sep-23		TISSUE	R			
94	CFMP-6-DM-2a-L	21-Sep-23		TISSUE	R			
95	CFMP-6-DM-3-C	22-Sep-23		TISSUE	R			
96	CFMP-6-DM-3-L	22-Sep-23		TISSUE	R			

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)	SAMPLE CONDITION AS RECEIVED (lab use only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO		Frozen ☐ SIF Observations Yes ☐ No ☐
Are samples for human consumption/ use? ☐ YES ☑ NO		Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐ Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

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

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

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

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6
Invoice To	Same as Report To ☑ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Blackwater Gold Ltd.
Contact:	Mark Warbanski

Report Format / Distribution		
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	
Quality Control (QC) Report with Report	☑ YES ☐ NO	
☐ Compare Results to Criteria on Report - provide details below if box checked		
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX	
Email 1 or Fax	jessica.lowey@erm.com	
Email 2	kimberly.san@erm.com	
Email 3	amuttray@entiaenviro.com	

Invoice Distribution		
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX	
Email 1 or Fax	kimberly.san@erm.com	
Email 2	patty.vadnais@erm.com	

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

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

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

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

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

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

Project Information	
ALS Account # / Quote #:	
Job #:	VA23-BWGL-100-005 (Blackwater)
PO / AFE:	
LSD:	

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

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer Sampler: Sean Sharpe

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS: As per Quote VA23-BWGL-100-005	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
97	CFMP-6-DM-8-C	21-Sep-23		TISSUE	R		
98	CFMP-6-DM-8-L	21-Sep-23		TISSUE	R		
99	CFMP-6-DM-9-C	22-Sep-23		TISSUE	R		
100	CFMP-6-DM-9-L	22-Sep-23		TISSUE	R		
101	CFMP-6-RBV-11-C	22-Sep-23		TISSUE	R		
102	CFMP-6-RBV-11-L	22-Sep-23		TISSUE	R		
103	CFMP-6-RBV-4-C	21-Sep-23		TISSUE	R		
104	CFMP-6-RBV-4-L	21-Sep-23		TISSUE	R		
105	CFMP-6-RBV-5-C	22-Sep-23		TISSUE	R		
106	CFMP-6-RBV-5-L	22-Sep-23		TISSUE	R		
107	CFMP-6-RBV-5a-C	23-Sep-23		TISSUE	R		
108	CFMP-6-RBV-5a-L	23-Sep-23		TISSUE	R		

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

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

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

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

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

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

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV2018 FRONT

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

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Page 10 of 10

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6
Invoice To	Same as Report To ☑ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Blackwater Gold Ltd.
Contact:	Mark Warbanski

Project Information

ALS Account # / Quote #:	
Job #:	VA23-BWGL-100-005 (Blackwater)
PO / AFE:	
LSD:	
ALS Lab Work Order # (lab use only):	

Report Format / Distribution

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

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

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

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	jessica.lowey@erm.com
Email 2	kimberly.san@erm.com
Email 3	amuttray@entiaenviro.com

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	kimberly.san@erm.com
Email 2	patty.vadnais@erm.com

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	
ALS Contact: Amber Springer	Sampler: Sean Sharpe

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

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

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

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

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

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

Analysis Request

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS As per Quote VA23-BWGL-100-005	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
109	CFMP-6-RBV-7-C	23-Sep-23		TISSUE	R			
110	CFMP-6-RBV-7-L	23-Sep-23		TISSUE	R			
111	~~CFMP-6-DM-8-C~~ CFMP-24-DM-7-C	~~24~~-Sep-23		TISSUE	R			
112	~~CFMP-6-DM-8-L~~ CFMP-24-DM-7-L	~~24~~-Sep-23		TISSUE	R			
113	CFMP-6-DM-2a-C	21-Sep-23		TISSUE	R			
114	CFMP-6-DM-2a-L	21-Sep-23		TISSUE	R			

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

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

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

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

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
	1

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by: JC	Date: 120c723	Time: 850m

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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

COC pages 1 to 10.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Page 1 of 1

Report To	Contact and company name below will appear on the final report	Report Format / Distribution	Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)
Company:	ERM Consultants Canada Ltd.	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:	Jessica Lowey, Kimberly San	Quality Control (QC) Report with Report ☑ YES ☐ NO	PRIORITY (Business Days): 4 day [P4-20%] ☐ / 3 day [P3-25%] ☐ / 2 day [P2-50%] ☐ — EMERGENCY: 1 Business day [E - 100%] ☐ / Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐
Phone:	250 520 0053, 778 554 8419	☐ Compare Results to Criteria on Report - provide details below if box checked	
	Company address below will appear on the final report	Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
Street:	#1000 - 1100 Melville Street	Email 1 or Fax: jessica.lowey@erm.com	For tests that can not be performed according to the service level selected, you will be contacted.
City/Province:	Vancouver, British Columbia	Email 2: kimberly.san@erm.com	
Postal Code:	V6E 4A6	Email 3: amuttray@entiaenviro.com	
Invoice To	Same as Report To ☑ YES ☑ NO	**Invoice Distribution**	
	Copy of Invoice with Report ☐ YES ☑ NO	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Company:	Blackwater Gold Ltd.	Email 1 or Fax: kimberly.san@erm.com	
Contact:	Mark Warbanski	Email 2: patty.vadnais@erm.com	

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	VA23-BWGL-100-005 (Blackwater)	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		**ALS Contact:** Amber Springer	**Sampler:** Sean Sharpe

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS: As per Quote VA23-BWGL-100-005	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
1	CFMP-14-RBV-1-C (C is whole carcass)	24-Sep-23		TISSUE	R		
2	CFMP-14-RBV-1-L (L is Liver from Carcass)	24-Sep-23		TISSUE	R		
3	CFMP-14-RBV-7-C	22-Sep-23		TISSUE	R		
4	CFMP-14-RBV-7-L	22-Sep-23		TISSUE	R		
5	CFMP-19-DM-12-C	23-Sep-23		TISSUE	R		
6	CFMP-19-DM-12-L	23-Sep-23		TISSUE	R		
7	CFMP-19-DM-13-C	24-Sep-23		TISSUE	R		
8	CFMP-19-DM-13-L	24-Sep-23		TISSUE	R		
9	CFMP-19-DM-14-C	24-Sep-23		TISSUE	R		
10	CFMP-19-DM-14-L	24-Sep-23		TISSUE	R		
11	CFMP-19-DM-15-C	24-Sep-23		TISSUE	R		
12	CFMP-19-DM-15-L	24-Sep-23		TISSUE	R		

Environmental Division
Vancouver
Work Order Reference
VA23C4435

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	
Are samples for human consumption/ use? ☐ YES ☑ NO	

SAMPLE CONDITION AS RECEIVED (lab use only)

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

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				1			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by: JC	Date: 120c723	Time: 850am

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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Coc pages 1 to 10

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www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

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Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6
Invoice To	Same as Report To ☑ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Blackwater Gold Ltd.
Contact:	Mark Warbanski

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	jessica.lowey@erm.com
Email 2	kimberly.san@erm.com
Email 3	amuttray@entiaenviro.com

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	kimberly.san@erm.com
Email 2	patty.vadnais@erm.com

Project Information	
ALS Account # / Quote #:	
Job #:	VA23-BWGL-100-005 (Blackwater)
PO / AFE:	
LSD:	

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

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer Sampler: Sean Sharpe

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

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

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

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

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

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

Analysis Request

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	As per Quote VA23-BWGL-100-005	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
13	CFMP-19-DM-5-C	21-Sep-23		TISSUE		R			
14	CFMP-19-DM-5-L	21-Sep-23		TISSUE		R			
15	CFMP-19-DM-8-C	24-Sep-23		TISSUE		R			
16	CFMP-19-DM-8-L	24-Sep-23		TISSUE		R			
17	CFMP-24-DM-1-C	21-Sep-23		TISSUE		R			
18	CFMP-24-DM-1-L	21-Sep-23		TISSUE		R			
19	CFMP-24-DM-10-C	21-Sep-23		TISSUE		R			
20	CFMP-24-DM-10-L	21-Sep-23		TISSUE		R			
21	CFMP-24-DM-2-C	22-Sep-23		TISSUE		R			
22	CFMP-24-DM-2-L	22-Sep-23		TISSUE		R			
23	CFMP-24-DM-3-C	20-Sep-23		TISSUE		R			
24	CFMP-24-DM-3-L	20-Sep-23		TISSUE		R			

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

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

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

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

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)		
Released by:	Date:	Time:

INITIAL SHIPMENT RECEPTION (lab use only)		
Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (lab use only)		
Received by: JC	Date: 12 Oct 23	Time: 850am

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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COC pages 1 to 10

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www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

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Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6
Invoice To	Same as Report To ☑ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Blackwater Gold Ltd.
Contact:	Mark Warbanski

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	jessica.lowey@erm.com
Email 2	kimberly.san@erm.com
Email 3	amuttray@entiaenviro.com

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	kimberly.san@erm.com
Email 2	patty.vadnais@erm.com

Project Information	
ALS Account # / Quote #:	
Job #:	VA23-BWGL-100-005 (Blackwater)
PO / AFE:	
LSD:	

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

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer **Sampler:** Sean Sharpe

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

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

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

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

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

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

Analysis Request

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS: As per Quote VA23-BWGL-100-005	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
25	CFMP-24-DM-3a-C	21-Sep-23		TISSUE	R			
26	CFMP-24-DM-3a-L	21-Sep-23		TISSUE	R			
27	CFMP-24-DM-5-C	22-Sep-23		TISSUE	R			
28	CFMP-24-DM-5-L	22-Sep-23		TISSUE	R			
29	CFMP-24-DM-8-C	20-Sep-23		TISSUE	R			
30	CFMP-24-DM-8-L	20-Sep-23		TISSUE	R			
31	CFMP-27-DM-1-C	24-Sep-23		TISSUE	R			
32	CFMP-27-DM-1-L	24-Sep-23		TISSUE	R			
33	CFMP-27-DM-11-C	20-Sep-23		TISSUE	R			
34	CFMP-27-DM-11-L	20-Sep-23		TISSUE	R			
35	CFMP-27-DM-11a-C	21-Sep-23		TISSUE	R			
36	CFMP-27-DM-11a-L	21-Sep-23		TISSUE	R			

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

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

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

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

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

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

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV2018 FRONT

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

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6
Invoice To	Same as Report To ☑ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Blackwater Gold Ltd.
Contact:	Mark Warbanski

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	jessica.lowey@erm.com
Email 2	kimberly.san@erm.com
Email 3	amuttray@entiaenviro.com

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	kimberly.san@erm.com
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Project Information	
ALS Account # / Quote #:	
Job #:	VA23-BWGL-100-005 (Blackwater)
PO / AFE:	
LSD:	

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

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer **Sampler:** Sean Sharpe

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

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Analysis Request

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	As per Quote VA23-BWGL-100-005	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
C1	CFMP-32-RBV-12a-C	21-Sep-23		TISSUE		R			
C2	CFMP-32-RBV-12a-L	21-Sep-23		TISSUE		R			
C3	CFMP-32-RBV-12b-C	22-Sep-23		TISSUE		R			
C4	CFMP-32-RBV-12b-L	22-Sep-23		TISSUE		R			
C5	CFMP-32-RBV-5-C	22-Sep-23		TISSUE		R			
C6	CFMP-32-RBV-5-L	22-Sep-23		TISSUE		R			
C7	CFMP-32-RBV-8-C	22-Sep-23		TISSUE		R			
C8	CFMP-32-RBV-8-L	22-Sep-23		TISSUE		R			
69	CFMP-32-RBV-9-C	22-Sep-23		TISSUE		R			
70	CFMP-32-RBV-9-L	22-Sep-23		TISSUE		R			
71	CFMP-4-RBV-4-C	22-Sep-23		TISSUE		R			
72	CFMP-4-RBV-4-L	22-Sep-23		TISSUE		R			

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

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

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

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

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

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

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Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

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Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6
Invoice To	Same as Report To ☑ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Blackwater Gold Ltd.
Contact:	Mark Warbanski

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	jessica.lowey@erm.com
Email 2	kimberly.san@erm.com
Email 3	amuttray@entiaenviro.com

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	kimberly.san@erm.com
Email 2	patty.vadnais@erm.com

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	VA23-BWGL-100-005 (Blackwater)	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer Sampler: Sean Sharpe

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

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

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Analysis Request

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	As per Quote VA23-BWGL-100-005	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
73	CFMP-4-RBV-6-C	21-Sep-23		TISSUE		R			
74	CFMP-4-RBV-6-L	21-Sep-23		TISSUE		R			
75	CFMP-4-RBV-8-C	20-Sep-23		TISSUE		R			
76	CFMP-4-RBV-8-L	20-Sep-23		TISSUE		R			
77	CFMP-40-DM-20-C	24-Sep-23		TISSUE		R			
78	CFMP-40-DM-20-L	24-Sep-23		TISSUE		R			
79	CFMP-40-DM-4-C	22-Sep-23		TISSUE		R			
80	CFMP-40-DM-4-L	22-Sep-23		TISSUE		R			
81	CFMP-40-DM-5-C	22-Sep-23		TISSUE		R			
82	CFMP-40-DM-5-L	22-Sep-23		TISSUE		R			
83	CFMP-40-RBV-10-C	24-Sep-23		TISSUE		R			
84	CFMP-40-RBV-10-L	24-Sep-23		TISSUE		R			

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

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

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

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

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

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

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6
Invoice To	Same as Report To ☑ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Blackwater Gold Ltd.
Contact:	Mark Warbanski

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	jessica.lowey@erm.com
Email 2	kimberly.san@erm.com
Email 3	amuttray@entiaenviro.com

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	kimberly.san@erm.com
Email 2	patty.vadnais@erm.com

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	VA23-BWGL-100-005 (Blackwater)	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		ALS Contact: Amber Springer	Sampler: Sean Sharpe

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

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

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

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

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

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

Analysis Request

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	As per Quote VA23-BWGL-100-005	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
85	CFMP-40-RBV-11-C	24-Sep-23		TISSUE		R			
86	CFMP-40-RBV-11-L	24-Sep-23		TISSUE		R			
87	CFMP-40-RBV-8-C	22-Sep-23		TISSUE		R			
88	CFMP-40-RBV-8-L	22-Sep-23		TISSUE		R			
89	CFMP-6-DM-1-C	23-Sep-23		TISSUE		R			
90	CFMP-6-DM-1-L	23-Sep-23		TISSUE		R			
91	CFMP-6-DM-2-C	20-Sep-23		TISSUE		R			
92	CFMP-6-DM-2-L	20-Sep-23		TISSUE		R			
93	CFMP-6-DM-2a-C	21-Sep-23		TISSUE		R			
94	CFMP-6-DM-2a-L	21-Sep-23		TISSUE		R			
95	CFMP-6-DM-3-C	22-Sep-23		TISSUE		R			
96	CFMP-6-DM-3-L	22-Sep-23		TISSUE		R			

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

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

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

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

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	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**.

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Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

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Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6
Invoice To	Same as Report To ☑ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Blackwater Gold Ltd.
Contact:	Mark Warbanski

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	jessica.lowey@erm.com
Email 2	kimberly.san@erm.com
Email 3	amuttray@entiaenviro.com

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	kimberly.san@erm.com
Email 2	patty.vadnais@erm.com

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	VA23-BWGL-100-005 (Blackwater)	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (lab use only):	ALS Contact: Amber Springer	Sampler: Sean Sharpe

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

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

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Analysis Request

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	As per Quote VA23-BWGL-100-005	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
97	CFMP-6-DM-8-C	21-Sep-23		TISSUE		R			
98	CFMP-6-DM-8-L	21-Sep-23		TISSUE		R			
99	CFMP-6-DM-9-C	22-Sep-23		TISSUE		R			
100	CFMP-6-DM-9-L	22-Sep-23		TISSUE		R			
101	CFMP-6-RBV-11-C	22-Sep-23		TISSUE		R			
102	CFMP-6-RBV-11-L	22-Sep-23		TISSUE		R			
103	CFMP-6-RBV-4-C	21-Sep-23		TISSUE		R			
104	CFMP-6-RBV-4-L	21-Sep-23		TISSUE		R			
105	CFMP-6-RBV-5-C	22-Sep-23		TISSUE		R			
106	CFMP-6-RBV-5-L	22-Sep-23		TISSUE		R			
107	CFMP-6-RBV-5a-C	23-Sep-23		TISSUE		R			
108	CFMP-6-RBV-5a-L	23-Sep-23		TISSUE		R			

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

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

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

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

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

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Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6
Invoice To	Same as Report To ☑ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Blackwater Gold Ltd.
Contact:	Mark Warbanski

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	jessica.lowey@erm.com
Email 2	kimberly.san@erm.com
Email 3	amuttray@entiaenviro.com

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	kimberly.san@erm.com
Email 2	patty.vadnais@erm.com

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- 2 day [P2-50%] ☐

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

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

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	VA23-BWGL-100-005 (Blackwater)	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (lab use only): **ALS Contact:** Amber Springer **Sampler:** Sean Sharpe

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS: As per Quote VA23-BWGL-100-005	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
109	CFMP-6-RBV-7-C	23-Sep-23		TISSUE	R		
110	CFMP-6-RBV-7-L	23-Sep-23		TISSUE	R		
111	~~CFMP-6-DM-8-C~~ CFMP-24-DM-7-C	2~~4~~-Sep-23		TISSUE	R		
112	~~CFMP-6-DM-8-L~~ CFMP-24-DM-7-L	2~~4~~-Sep-23		TISSUE	R		
113	CFMP-6-DM-2a-C	21-Sep-23		TISSUE	R		
114	CFMP-6-DM-2a-L	21-Sep-23		TISSUE	R		

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	
Are samples for human consumption/ use? ☐ YES ☑ NO	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				1			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by: JC	Date: 120CT23	Time: 8:50am

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV2013 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**.

COC pages 1 to 10.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Page 1 of 1

Report To	Contact and company name below will appear on the final report	Report Format / Distribution	Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)
Company:	ERM Consultants Canada Ltd.	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:	Jessica Lowey, Kimberly San	Quality Control (QC) Report with Report ☑ YES ☐ NO	PRIORITY (Business Days): 4 day [P4-20%] ☐ / 3 day [P3-25%] ☐ / 2 day [P2-50%] ☐ — EMERGENCY: 1 Business day [E - 100%] ☐ / Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐
Phone:	250 520 0053, 778 554 8419	☐ Compare Results to Criteria on Report - provide details below if box checked	
	Company address below will appear on the final report	Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Street:	#1000 - 1100 Melville Street	Email 1 or Fax: jessica.lowey@erm.com	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
City/Province:	Vancouver, British Columbia	Email 2: kimberly.san@erm.com	For tests that can not be performed according to the service level selected, you will be contacted.
Postal Code:	V6E 4A6	Email 3: amuttray@entlaenviro.com	
Invoice To	Same as Report To ☑ YES ☑ NO	**Invoice Distribution**	**Analysis Request**
	Copy of Invoice with Report ☐ YES ☑ NO	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Company:	Blackwater Gold Ltd.	Email 1 or Fax: kimberly.san@erm.com	
Contact:	Mark Warbanski	Email 2: patty.vadnais@erm.com	

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#:
Job #:	VA23-BWGL-100-005 (Blackwater)	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		ALS Contact: Amber Springer	Sampler: Sean Sharpe

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS: As per Quote VA23-BWGL-100-005	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
1	CFMP-14-RBV-1-C (C is whole carcass)	24-Sep-23		TISSUE	R			
2	CFMP-14-RBV-1-L (L is Liver from Carcass)	24-Sep-23		TISSUE	R			
3	CFMP-14-RBV-7-C	22-Sep-23		TISSUE	R			
4	CFMP-14-RBV-7-L	22-Sep-23		TISSUE	R			
5	CFMP-19-DM-12-C	23-Sep-23		TISSUE	R			
6	CFMP-19-DM-12-L	23-Sep-23		TISSUE	R			
7	CFMP-19-DM-13-C	24-Sep-23		TISSUE	R			
8	CFMP-19-DM-13-L	24-Sep-23		TISSUE	R			
9	CFMP-19-DM-14-C	24-Sep-23		TISSUE	R			
10	CFMP-19-DM-14-L	24-Sep-23		TISSUE	R			
11	CFMP-19-DM-15-C	24-Sep-23		TISSUE	R			
12	CFMP-19-DM-15-L	24-Sep-23		TISSUE	R			

Environmental Division
Vancouver
Work Order Reference
VA23C4435

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	
Are samples for human consumption/ use? ☐ YES ☑ NO	

SAMPLE CONDITION AS RECEIVED (lab use only)

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

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				1			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by: JL	Date: 120723	Time: 850am

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV2018 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.**

Coc pages 1 to 10

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Report To	Contact and company name below will appear on the final report	Report Format / Distribution	Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)
Company:	ERM Consultants Canada Ltd.	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:	Jessica Lowey, Kimberly San	Quality Control (QC) Report with Report ☑ YES ☐ NO	PRIORITY (Business Days): 4 day [P4-20%] ☐ / 3 day [P3-25%] ☐ / 2 day [P2-50%] ☐ — EMERGENCY: 1 Business day [E - 100%] ☐ / Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐
Phone:	250 520 0053, 778 554 8419	☐ Compare Results to Criteria on Report - provide details below if box checked	
	Company address below will appear on the final report	Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Street:	#1000 - 1100 Melville Street	Email 1 or Fax: jessica.lowey@erm.com	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
City/Province:	Vancouver, British Columbia	Email 2: kimberly.san@erm.com	For tests that can not be performed according to the service level selected, you will be contacted.
Postal Code:	V6E 4A6	Email 3: amuttray@entiaenviro.com	

Invoice To		Invoice Distribution	
	Same as Report To ☑ YES ☑ NO		
	Copy of Invoice with Report ☐ YES ☑ NO	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Company:	Blackwater Gold Ltd.	Email 1 or Fax: kimberly.san@erm.com	
Contact:	Mark Warbanski	Email 2: patty.vadnais@erm.com	

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	VA23-BWGL-100-005 (Blackwater)	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer Sampler: Sean Sharpe

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS: As per Quote VA23-BWGL-100-005	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
13	CFMP-19-DM-5-C	21-Sep-23		TISSUE	R			
14	CFMP-19-DM-5-L	21-Sep-23		TISSUE	R			
15	CFMP-19-DM-8-C	24-Sep-23		TISSUE	R			
16	CFMP-19-DM-8-L	24-Sep-23		TISSUE	R			
17	CFMP-24-DM-1-C	21-Sep-23		TISSUE	R			
18	CFMP-24-DM-1-L	21-Sep-23		TISSUE	R			
19	CFMP-24-DM-10-C	21-Sep-23		TISSUE	R			
20	CFMP-24-DM-10-L	21-Sep-23		TISSUE	R			
21	CFMP-24-DM-2-C	22-Sep-23		TISSUE	R			
22	CFMP-24-DM-2-L	22-Sep-23		TISSUE	R			
23	CFMP-24-DM-3-C	20-Sep-23		TISSUE	R			
24	CFMP-24-DM-3-L	20-Sep-23		TISSUE	R			

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	
Are samples for human consumption/ use? ☐ YES ☑ NO	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by: JC	Date: 12 Oct 23	Time: 850m

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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

COC pages 1 to 10

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	jessica.lowey@erm.com
Email 2	kimberly.san@erm.com
Email 3	amuttray@entiaenviro.com

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

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

Invoice To	Same as Report To ☑ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Blackwater Gold Ltd.
Contact:	Mark Warbanski

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	kimberly.san@erm.com
Email 2	patty.vadnais@erm.com

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	VA23-BWGL-100-005 (Blackwater)	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer Sampler: Sean Sharpe

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	As per Quote VA23-BWGL-100-005	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
25	CFMP-24-DM-3a-C	21-Sep-23		TISSUE		R		
26	CFMP-24-DM-3a-L	21-Sep-23		TISSUE		R		
27	CFMP-24-DM-5-C	22-Sep-23		TISSUE		R		
28	CFMP-24-DM-5-L	22-Sep-23		TISSUE		R		
29	CFMP-24-DM-8-C	20-Sep-23		TISSUE		R		
30	CFMP-24-DM-8-L	20-Sep-23		TISSUE		R		
31	CFMP-27-DM-1-C	24-Sep-23		TISSUE		R		
32	CFMP-27-DM-1-L	24-Sep-23		TISSUE		R		
33	CFMP-27-DM-11-C	20-Sep-23		TISSUE		R		
34	CFMP-27-DM-11-L	20-Sep-23		TISSUE		R		
35	CFMP-27-DM-11a-C	21-Sep-23		TISSUE		R		
36	CFMP-27-DM-11a-L	21-Sep-23		TISSUE		R		

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	
Are samples for human consumption/ use? ☐ YES ☑ NO	

SAMPLE CONDITION AS RECEIVED (lab use only)

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

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

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

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	jessica.lowey@erm.com
Email 2	kimberly.san@erm.com
Email 3	amuttray@entiaenviro.com

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

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

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

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

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

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

Invoice To			
	Same as Report To	☑ YES	☑ NO
	Copy of Invoice with Report	☐ YES	☑ NO
Company:	Blackwater Gold Ltd.		
Contact:	Mark Warbanski		

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	kimberly.san@erm.com
Email 2	patty.vadnais@erm.com

Project Information	
ALS Account # / Quote #:	
Job #:	VA23-BWGL-100-005 (Blackwater)
PO / AFE:	
LSD:	

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

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer Sampler: Sean Sharpe

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS As per Quote VA23-BWGL-100-005														SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
37	CFMP-27-DM-14-C	24-Sep-23		TISSUE		R														
38	CFMP-27-DM-14-L	24-Sep-23		TISSUE		R														
39	CFMP-27-DM-14a-C	24-Sep-23		TISSUE		R														
30	CFMP-27-DM-14a-L	24-Sep-23		TISSUE		R														
41	CFMP-27-DM-15-C	24-Sep-23		TISSUE		R														
42	CFMP-27-DM-15-L	24-Sep-23		TISSUE		R														
43	CFMP-27-DM-2-C	21-Sep-23		TISSUE		R														
44	CFMP-27-DM-2-L	21-Sep-23		TISSUE		R														
45	CFMP-27-DM-8-C	24-Sep-23		TISSUE		R														
46	CFMP-27-DM-8-L	24-Sep-23		TISSUE		R														
47	CFMP-27-RBV-13-C	24-Sep-23		TISSUE		R														
48	CFMP-27-RBV-13-L	24-Sep-23		TISSUE		R														

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

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

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

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

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

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

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

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

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Report To	Contact and company name below will appear on the final report	Report Format / Distribution	Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)
Company:	ERM Consultants Canada Ltd.	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:	Jessica Lowey, Kimberly San	Quality Control (QC) Report with Report ☑ YES ☐ NO	PRIORITY (Business Days): 4 day [P4-20%] ☐ / 3 day [P3-25%] ☐ / 2 day [P2-50%] ☐ — EMERGENCY: 1 Business day [E - 100%] ☐ / Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐
Phone:	250 520 0053, 778 554 8419	☐ Compare Results to Criteria on Report - provide details below if box checked	
	Company address below will appear on the final report	Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Street:	#1000 - 1100 Melville Street	Email 1 or Fax: jessica.lowey@erm.com	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
City/Province:	Vancouver, British Columbia	Email 2: kimberly.san@erm.com	For tests that can not be performed according to the service level selected, you will be contacted.
Postal Code:	V6E 4A6	Email 3: amuttray@entiaenviro.com	Analysis Request
Invoice To	Same as Report To ☑ YES ☑ NO	**Invoice Distribution**	
	Copy of Invoice with Report ☐ YES ☑ NO	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Company:	Blackwater Gold Ltd.	Email 1 or Fax: kimberly.san@erm.com	
Contact:	Mark Warbanski	Email 2: patty.vadnais@erm.com	
Project Information		**Oil and Gas Required Fields (client use)**	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	VA23-BWGL-100-005 (Blackwater)	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		**ALS Contact:** Amber Springer	**Sampler:** Sean Sharpe

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS: As per Quote VA23-BWGL-100-005	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
49	CFMP-27-RBV-3-C	23-Sep-23		TISSUE	R			
50	CFMP-27-RBV-3-L	23-Sep-23		TISSUE	R			
51	CFMP-32-RBV-1-C	22-Sep-23		TISSUE	R			
52	CFMP-32-RBV-1-L	22-Sep-23		TISSUE	R			
53	CFMP-32-RBV-11-C	20-Sep-23		TISSUE	R			
54	CFMP-32-RBV-11-L	20-Sep-23		TISSUE	R			
55	CFMP-32-RBV-11a-C	22-Sep-23		TISSUE	R			
56	CFMP-32-RBV-11a-L	22-Sep-23		TISSUE	R			
57	CFMP-32-RBV-11b-C	21-Sep-23		TISSUE	R			
58	CFMP-32-RBV-11b-L	21-Sep-23		TISSUE	R			
59	CFMP-32-RBV-12-C	20-Sep-23		TISSUE	R			
60	CFMP-32-RBV-12-L	20-Sep-23		TISSUE	R			

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)	SAMPLE CONDITION AS RECEIVED (lab use only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO		Frozen ☐ SIF Observations Yes ☐ No ☐
Are samples for human consumption/ use? ☐ YES ☑ NO		Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐
		Cooling Initiated ☐
		INITIAL COOLER TEMPERATURES °C / FINAL COOLER TEMPERATURES °C

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

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6

Report Format / Distribution

Select Report Format: [x] PDF [x] EXCEL [x] EDD (DIGITAL)

Quality Control (QC) Report with Report [x] YES [ ] NO

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

Select Distribution: [x] EMAIL [ ] MAIL [ ] FAX

Email 1 or Fax: jessica.lowey@erm.com

Email 2: kimberly.san@erm.com

Email 3: amuttray@entiaenviro.com

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

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

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

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

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

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

Invoice To	Same as Report To [x] YES [x] NO
	Copy of Invoice with Report [ ] YES [x] NO
Company:	Blackwater Gold Ltd.
Contact:	Mark Warbanski

Invoice Distribution

Select Invoice Distribution: [x] EMAIL [ ] MAIL [ ] FAX

Email 1 or Fax: kimberly.san@erm.com

Email 2: patty.vadnais@erm.com

Project Information	
ALS Account # / Quote #:	
Job #:	VA23-BWGL-100-005 (Blackwater)
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center: PO#

Major/Minor Code: Routing Code:

Requisitioner:

Location:

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer Sampler: Sean Sharpe

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS: As per Quote VA23-BWGL-100-005	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
C1	CFMP-32-RBV-12a-C	21-Sep-23		TISSUE	R		
C2	CFMP-32-RBV-12a-L	21-Sep-23		TISSUE	R		
C3	CFMP-32-RBV-12b-C	22-Sep-23		TISSUE	R		
C4	CFMP-32-RBV-12b-L	22-Sep-23		TISSUE	R		
C5	CFMP-32-RBV-5-C	22-Sep-23		TISSUE	R		
C6	CFMP-32-RBV-5-L	22-Sep-23		TISSUE	R		
C7	CFMP-32-RBV-8-C	22-Sep-23		TISSUE	R		
C8	CFMP-32-RBV-8-L	22-Sep-23		TISSUE	R		
69	CFMP-32-RBV-9-C	22-Sep-23		TISSUE	R		
70	CFMP-32-RBV-9-L	22-Sep-23		TISSUE	R		
71	CFMP-4-RBV-4-C	22-Sep-23		TISSUE	R		
72	CFMP-4-RBV-4-L	22-Sep-23		TISSUE	R		

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

Are samples taken from a Regulated DW System? [ ] YES [x] NO

Are samples for human consumption/ use? [ ] YES [x] NO

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

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen [ ] SIF Observations Yes [ ] No [ ]

Ice Packs [ ] Ice Cubes [ ] Custody seal intact Yes [ ] No [ ]

Cooling Initiated [ ]

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	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**.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Report To	Contact and company name below will appear on the final report	Report Format / Distribution	Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)
Company:	ERM Consultants Canada Ltd.	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:	Jessica Lowey, Kimberly San	Quality Control (QC) Report with Report ☑ YES ☐ NO	PRIORITY (Business Days): 4 day [P4-20%] ☐ / 3 day [P3-25%] ☐ / 2 day [P2-50%] ☐ — EMERGENCY: 1 Business day [E - 100%] ☐ / Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐
Phone:	250 520 0053, 778 554 8419	☐ Compare Results to Criteria on Report - provide details below if box checked	
	Company address below will appear on the final report	Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Street:	#1000 - 1100 Melville Street	Email 1 or Fax: jessica.lowey@erm.com	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
City/Province:	Vancouver, British Columbia	Email 2: kimberly.san@erm.com	For tests that can not be performed according to the service level selected, you will be contacted.
Postal Code:	V6E 4A6	Email 3: amuttray@entiaenviro.com	Analysis Request
Invoice To	Same as Report To ☑ YES ☑ NO	**Invoice Distribution**	
	Copy of Invoice with Report ☐ YES ☑ NO	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Company:	Blackwater Gold Ltd.	Email 1 or Fax: kimberly.san@erm.com	
Contact:	Mark Warbanski	Email 2: patty.vadnais@erm.com	

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	VA23-BWGL-100-005 (Blackwater)	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		ALS Contact: Amber Springer	Sampler: Sean Sharpe

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS: As per Quote VA23-BWGL-100-005	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
73	CFMP-4-RBV-6-C	21-Sep-23		TISSUE	R			
74	CFMP-4-RBV-6-L	21-Sep-23		TISSUE	R			
75	CFMP-4-RBV-8-C	20-Sep-23		TISSUE	R			
76	CFMP-4-RBV-8-L	20-Sep-23		TISSUE	R			
77	CFMP-40-DM-20-C	24-Sep-23		TISSUE	R			
78	CFMP-40-DM-20-L	24-Sep-23		TISSUE	R			
79	CFMP-40-DM-4-C	22-Sep-23		TISSUE	R			
80	CFMP-40-DM-4-L	22-Sep-23		TISSUE	R			
81	CFMP-40-DM-5-C	22-Sep-23		TISSUE	R			
82	CFMP-40-DM-5-L	22-Sep-23		TISSUE	R			
83	CFMP-40-RBV-10-C	24-Sep-23		TISSUE	R			
84	CFMP-40-RBV-10-L	24-Sep-23		TISSUE	R			

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	
Are samples for human consumption/ use? ☐ YES ☑ NO	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

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

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Report To	Contact and company name below will appear on the final report	Report Format / Distribution		Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)	
Company:	ERM Consultants Canada Ltd.	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)		Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply	
Contact:	Jessica Lowey, Kimberly San	Quality Control (QC) Report with Report ☑ YES ☐ NO		PRIORITY (Business Days) 4 day [P4-20%] ☐	EMERGENCY 1 Business day [E - 100%] ☐
Phone:	250 520 0053, 778 554 8419	☐ Compare Results to Criteria on Report - provide details below if box checked		3 day [P3-25%] ☐	Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐
	Company address below will appear on the final report	Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX		2 day [P2-50%] ☐	
Street:	#1000 - 1100 Melville Street	Email 1 or Fax	jessica.lowey@erm.com	Date and Time Required for all E&P TATs:	dd-mmm-yy hh:mm
City/Province:	Vancouver, British Columbia	Email 2	kimberly.san@erm.com	For tests that can not be performed according to the service level selected, you will be contacted.	
Postal Code:	V6E 4A6	Email 3	amuttray@entiaenviro.com	Analysis Request	
Invoice To	Same as Report To ☑ YES ☑ NO	Invoice Distribution			
	Copy of Invoice with Report ☐ YES ☑ NO	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX			
Company:	Blackwater Gold Ltd.	Email 1 or Fax	kimberly.san@erm.com		
Contact:	Mark Warbanski	Email 2	patty.vadnais@erm.com		
Project Information		Oil and Gas Required Fields (client use)			
ALS Account # / Quote #:		AFE/Cost Center:	PO#		
Job #:	VA23-BWGL-100-005 (Blackwater)	Major/Minor Code:	Routing Code:		
PO / AFE:		Requisitioner:			
LSD:		Location:			
ALS Lab Work Order # (lab use only):		ALS Contact: Amber Springer	Sampler: Sean Sharpe		

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	As per Quote VA23-BWGL-100-005	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
85	CFMP-40-RBV-11-C	24-Sep-23		TISSUE		R			
86	CFMP-40-RBV-11-L	24-Sep-23		TISSUE		R			
87	CFMP-40-RBV-8-C	22-Sep-23		TISSUE		R			
88	CFMP-40-RBV-8-L	22-Sep-23		TISSUE		R			
89	CFMP-6-DM-1-C	23-Sep-23		TISSUE		R			
90	CFMP-6-DM-1-L	23-Sep-23		TISSUE		R			
91	CFMP-6-DM-2-C	20-Sep-23		TISSUE		R			
92	CFMP-6-DM-2-L	20-Sep-23		TISSUE		R			
93	CFMP-6-DM-2a-C	21-Sep-23		TISSUE		R			
94	CFMP-6-DM-2a-L	21-Sep-23		TISSUE		R			
95	CFMP-6-DM-3-C	22-Sep-23		TISSUE		R			
96	CFMP-6-DM-3-L	22-Sep-23		TISSUE		R			

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)	SAMPLE CONDITION AS RECEIVED (lab use only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO		Frozen ☐ SIF Observations Yes ☐ No ☐
Are samples for human consumption/ use? ☐ YES ☑ NO		Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐
		Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

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

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY NOV2018FRONT

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

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Report To	Contact and company name below will appear on the final report
Company:	ERM Consultants Canada Ltd.
Contact:	Jessica Lowey, Kimberly San
Phone:	250 520 0053, 778 554 8419
	Company address below will appear on the final report
Street:	#1000 - 1100 Melville Street
City/Province:	Vancouver, British Columbia
Postal Code:	V6E 4A6

Report Format / Distribution

Select Report Format: [x] PDF [x] EXCEL [x] EDD (DIGITAL)

Quality Control (QC) Report with Report [x] YES [ ] NO

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

Select Distribution: [x] EMAIL [ ] MAIL [ ] FAX

Email 1 or Fax: jessica.lowey@erm.com

Email 2: kimberly.san@erm.com

Email 3: amuttray@entiaenviro.com

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

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

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

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

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

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

Invoice To	Same as Report To [x] YES [x] NO
	Copy of Invoice with Report [ ] YES [x] NO
Company:	Blackwater Gold Ltd.
Contact:	Mark Warbanski

Invoice Distribution

Select Invoice Distribution: [x] EMAIL [ ] MAIL [ ] FAX

Email 1 or Fax: kimberly.san@erm.com

Email 2: patty.vadnais@erm.com

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#:
Job #:	VA23-BWGL-100-005 (Blackwater)	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer Sampler: Sean Sharpe

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS: As per Quote VA23-BWGL-100-005	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
97	CFMP-6-DM-8-C	21-Sep-23		TISSUE	R		
98	CFMP-6-DM-8-L	21-Sep-23		TISSUE	R		
99	CFMP-6-DM-9-C	22-Sep-23		TISSUE	R		
100	CFMP-6-DM-9-L	22-Sep-23		TISSUE	R		
101	CFMP-6-RBV-11-C	22-Sep-23		TISSUE	R		
102	CFMP-6-RBV-11-L	22-Sep-23		TISSUE	R		
103	CFMP-6-RBV-4-C	21-Sep-23		TISSUE	R		
104	CFMP-6-RBV-4-L	21-Sep-23		TISSUE	R		
105	CFMP-6-RBV-5-C	22-Sep-23		TISSUE	R		
106	CFMP-6-RBV-5-L	22-Sep-23		TISSUE	R		
107	CFMP-6-RBV-5a-C	23-Sep-23		TISSUE	R		
108	CFMP-6-RBV-5a-L	23-Sep-23		TISSUE	R		

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

Are samples taken from a Regulated DW System? [ ] YES [x] NO

Are samples for human consumption/ use? [ ] YES [x] NO

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

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen [ ] SIF Observations Yes [ ] No [ ]

Ice Packs [ ] Ice Cubes [ ] Custody seal intact Yes [ ] No [ ]

Cooling Initiated [ ]

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	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**.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Report To	Contact and company name below will appear on the final report	Report Format / Distribution	Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)
Company:	ERM Consultants Canada Ltd.	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:	Jessica Lowey, Kimberly San	Quality Control (QC) Report with Report ☑ YES ☐ NO	PRIORITY (Business Days): 4 day [P4-20%] ☐ / 3 day [P3-25%] ☐ / 2 day [P2-50%] ☐
Phone:	250 520 0053, 778 554 8419	☐ Compare Results to Criteria on Report - provide details below if box checked	EMERGENCY: 1 Business day [E - 100%] ☐ / Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐
	Company address below will appear on the final report	Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Street:	#1000 - 1100 Melville Street	Email 1 or Fax: jessica.lowey@erm.com	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
City/Province:	Vancouver, British Columbia	Email 2: kimberly.san@erm.com	For tests that can not be performed according to the service level selected, you will be contacted.
Postal Code:	V6E 4A6	Email 3: amuttray@entiaenviro.com	Analysis Request
Invoice To	Same as Report To ☑ YES ☑ NO	**Invoice Distribution**	
	Copy of Invoice with Report ☐ YES ☑ NO	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Company:	Blackwater Gold Ltd.	Email 1 or Fax: kimberly.san@erm.com	
Contact:	Mark Warbanski	Email 2: patty.vadnais@erm.com	
Project Information		**Oil and Gas Required Fields (client use)**	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	VA23-BWGL-100-005 (Blackwater)	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		**ALS Contact:** Amber Springer	**Sampler:** Sean Sharpe

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS: As per Quote VA23-BWGL-100-005	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
109	CFMP-6-RBV-7-C	23-Sep-23		TISSUE	R			
110	CFMP-6-RBV-7-L	23-Sep-23		TISSUE	R			
111	~~CFMP-6-DM-8-C~~ CFMP-24-DM-7-C	~~24~~-Sep-23		TISSUE	R			
112	~~CFMP-6-DM-8-L~~ CFMP-24-DM-7-L	~~24~~-Sep-23		TISSUE	R			
113	CFMP-6-DM-2a-C	21-Sep-23		TISSUE	R			
114	CFMP-6-DM-2a-L	21-Sep-23		TISSUE	R			

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	
Are samples for human consumption/ use? ☐ YES ☑ NO	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | Ice Packs ☑ | Ice Cubes ☐ | Cooling Initiated ☐

SIF Observations: Yes ☐ No ☐

Custody seal intact: Yes ☐ No ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				1			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by: JC	Date: 120723	Time: 850m

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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

COC pages 1 to 10.

APPENDIX B CONVERSION TABLES OF COPC CONCENTRATIONS IN DUSTFALL TO COPC CONCENTRATIONS IN PM_{10}

Appendix B: Calculation of PM_{10}-Associated Concentrations of Contaminants of Potential Concern from 2023 Dustfall and PM_{10} Data

Contaminant of Potential Concern	Lowest Detection Limit	Units	Dustfall Data									Fraction of Contaminant of Potential Concern in Total Dustfall							
			Impact (Near field) Sites				Control (Far field) Sites				All Sites	Impact (Near field) Sites				Control (Far field) Sites			
			14	4	6	19	40	27	32	24	Mean	14	4	6	19	40	27	32	24
			03-Sep-2023	04-Sep-2023	04-Sep-2023	04-Sep-2023	04-Sep-2023	04-Sep-2023	14-Sep-2023	06-Sep-2023									
			VA23C3366-001	VA23C3366-006	VA23C3366-004	VA23C3366-007	VA23C3366-002	VA23C3366-003	VA23C3366-005	VA23C3366-008									
Field Tests (Matrix: Air)																			
Sampling time, field	1	days	23	24	23	24	21	21	12	21	-	-	-	-	-	-	-	-	-
Area sampled, field	0.010	cm²	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	-	-	-	-	-	-	-	-	-
Particulates (Matrix: Air)																			
Dustfall, total	1.90	mg	9.02	2.05	1.92	4.38	**0.95**	**0.95**	**0.95**	**0.95**	-	-	-	-	-	-	-	-	-
	0.10	mg/dm².day	0.71	0.15	0.15	0.33	**0.080**	**0.080**	**0.14**	**0.080**	-	-	-	-	-	-	-	-	-
Total Metals (Matrix: Air)																			
Aluminum, total	0.0030	mg	0.0311	0.0517	0.0171	0.0479	0.013	0.0124	0.0076	0.0185	0.0249	0.00345	0.0252	0.00891	0.0109	0.0137	0.0131	0.00800	0.0195
	0.000160	mg/dm².day	0.00244	0.00389	0.00134	0.0036	0.00112	0.00106	0.00114	0.00159	0.00202	0.00344	0.0259	0.00893	0.0109	0.0140	0.0133	0.00814	0.0199
Antimony, total	0.000050	mg	**0.000025**	**0.000025**	**0.000025**	**0.000025**	**0.000025**	**0.000025**	**0.000025**	**0.000025**	0.0000250	0.00000277	0.0000122	0.0000130	0.00000571	0.0000263	0.0000263	0.0000263	0.0000263
	0.0000026	mg/dm².day	**0.00000195**	**0.00000190**	**0.00000195**	**0.00000190**	**0.00000215**	**0.00000215**	**0.00000375**	**0.00000215**	0.00000224	0.00000275	0.0000127	0.0000130	0.00000576	0.0000269	0.0000269	0.0000268	0.0000269
Arsenic, total	0.000050	mg	**0.000025**	0.0000920	**0.000025**	**0.000025**	**0.000025**	**0.000025**	**0.000025**	**0.000025**	0.0000334	0.00000277	0.0000449	0.0000130	0.00000571	0.0000263	0.0000263	0.0000263	0.0000263
	0.0000026	mg/dm².day	**0.00000195**	0.00000690	**0.00000195**	**0.00000190**	**0.00000215**	**0.00000215**	**0.00000375**	**0.00000215**	0.00000286	0.00000275	0.0000460	0.0000130	0.00000576	0.0000269	0.0000269	0.0000268	0.0000269
Beryllium, total	0.00025	mg	**0.000125**	**0.000125**	**0.000125**	**0.000125**	**0.000125**	**0.000125**	**0.000125**	**0.000125**	0.000125	0.0000139	0.0000610	0.0000651	0.0000285	0.000132	0.000132	0.000132	0.000132
	0.000013	mg/dm².day	**0.0000100**	**0.0000095**	**0.0000100**	**0.0000095**	**0.0000105**	**0.0000105**	**0.0000190**	**0.0000105**	0.0000112	0.0000141	0.0000633	0.0000667	0.0000288	0.000131	0.000131	0.000136	0.000131
Cadmium, total	0.000020	mg	**0.00001**	**0.00001**	**0.00001**	**0.00001**	**0.00001**	**0.00001**	**0.00001**	**0.00001**	0.0000100	0.00000111	0.00000488	0.00000521	0.00000228	0.0000105	0.0000105	0.0000105	0.0000105
	0.0000013	mg/dm².day	**0.00000080**	**0.00000075**	**0.00000080**	**0.00000075**	**0.00000085**	**0.00000085**	**0.00000150**	**0.00000085**	0.000000894	0.00000113	0.00000500	0.00000533	0.00000227	0.0000106	0.0000106	0.0000107	0.0000106
Chromium, total	0.00025	mg	**0.000125**	**0.000125**	**0.000125**	**0.000125**	**0.000125**	**0.000125**	**0.000125**	**0.000125**	0.000125	0.0000139	0.0000610	0.0000651	0.0000285	0.000132	0.000132	0.000132	0.000132
	0.000013	mg/dm².day	**0.0000100**	**0.0000095**	**0.0000100**	**0.0000095**	**0.0000105**	**0.0000105**	**0.0000190**	**0.0000105**	0.0000112	0.0000141	0.0000633	0.0000667	0.0000288	0.000131	0.000131	0.000136	0.000131
Cobalt, total	0.000050	mg	**0.000025**	**0.000025**	**0.000025**	**0.000025**	**0.000025**	**0.000025**	**0.000025**	**0.000025**	0.0000250	0.00000277	0.0000122	0.0000130	0.00000571	0.0000263	0.0000263	0.0000263	0.0000263
	0.0000026	mg/dm².day	**0.00000195**	**0.00000190**	**0.00000195**	**0.00000190**	**0.00000215**	**0.00000215**	**0.00000375**	**0.00000215**	0.00000224	0.00000275	0.0000127	0.0000130	0.00000576	0.0000269	0.0000269	0.0000268	0.0000269
Copper, total	0.00050	mg	**0.00025**	**0.00025**	**0.00025**	**0.00025**	**0.00025**	**0.00025**	**0.00025**	**0.00025**	0.000250	0.0000277	0.000122	0.000130	0.0000571	0.000263	0.000263	0.000263	0.000263
	0.000026	mg/dm².day	**0.0000195**	**0.0000190**	**0.0000195**	**0.0000190**	**0.0000215**	**0.0000215**	**0.0000375**	**0.0000215**	0.0000224	0.0000275	0.000127	0.000130	0.0000576	0.000269	0.000269	0.000268	0.000269
Iron, total	0.015	mg	0.0230	0.0470	**0.0075**	0.0440	**0.0075**	**0.0075**	**0.0075**	0.0170	0.0201	0.00255	0.0229	0.00391	0.0100	0.00789	0.00789	0.00789	0.0179
	0.00079	mg/dm².day	0.00180	0.00353	**0.000590**	0.00331	**0.000645**	**0.000645**	**0.00113**	0.00146	0.00164	0.00254	0.0235	0.00393	0.0100	0.00806	0.00806	0.00807	0.0183
Lead, total	0.000025	mg	0.000027	0.000154	**0.0000125**	0.0000280	**0.0000125**	**0.0000125**	**0.0000125**	**0.0000125**	0.0000339	0.00000299	0.0000751	0.00000651	0.00000639	0.0000132	0.0000132	0.0000132	0.0000132
	0.0000013	mg/dm².day	0.0000021	0.0000116	**0.00000100**	0.00000210	**0.00000105**	**0.00000105**	**0.00000190**	**0.00000105**	0.00000273	0.00000296	0.0000773	0.00000667	0.00000636	0.0000131	0.0000131	0.0000136	0.0000131
Lithium, total	0.0025	mg	**0.00125**	**0.00125**	**0.00125**	**0.00125**	**0.00125**	**0.00125**	**0.00125**	**0.00125**	0.00125	0.0001386	0.0006098	0.0006510	0.0002854	0.0013158	0.0013158	0.0013158	0.0013158
	0.00013	mg/dm².day	**0.000100**	**0.000095**	**0.000100**	**0.000095**	**0.000105**	**0.000105**	**0.000190**	**0.000105**	0.000112	0.0001408	0.0006333	0.0006667	0.0002879	0.0013125	0.0013125	0.0013571	0.0013125
Manganese, total	0.00010	mg	0.0398	0.0135	0.0101	0.00925	0.0105	0.0083	0.00641	0.00675	0.0131	0.00441	0.00659	0.00526	0.00211	0.0111	0.00874	0.00675	0.00711
	0.0000052	mg/dm².day	0.00312	0.00102	0.000793	0.000696	0.000902	0.000713	0.000964	0.00058	0.00110	0.00439	0.00680	0.00529	0.00211	0.0113	0.00891	0.00689	0.00725
Mercury, total	0.000025	mg	**0.0000125**	**0.0000125**	**0.0000125**	**0.0000125**	**0.0000125**	**0.0000125**	**0.0000125**	**0.0000125**	0.0000125	0.00000139	0.00000610	0.00000651	0.00000285	0.0000132	0.0000132	0.0000132	0.0000132
	0.0000013	mg/dm².day	**0.00000100**	**0.00000095**	**0.00000100**	**0.00000095**	**0.00000105**	**0.00000105**	**0.00000190**	**0.00000105**	0.00000112	0.00000141	0.00000633	0.00000667	0.00000288	0.0000131	0.0000131	0.0000136	0.0000131
Molybdenum, total	0.000025	mg	**0.0000125**	**0.0000125**	**0.0000125**	**0.0000125**	**0.0000125**	**0.0000125**	**0.0000125**	**0.0000125**	0.0000125	0.00000139	0.00000610	0.00000651	0.00000285	0.0000132	0.0000132	0.0000132	0.0000132
	0.0000013	mg/dm².day	**0.00000100**	**0.00000095**	**0.00000100**	**0.00000095**	**0.00000105**	**0.00000105**	**0.00000190**	**0.00000105**	0.00000112	0.00000141	0.00000633	0.00000667	0.00000288	0.0000131	0.0000131	0.0000136	0.0000131
Nickel, total	0.00025	mg	**0.000125**	**0.000125**	**0.000125**	**0.000125**	**0.000125**	**0.000125**	**0.000125**	**0.000125**	0.000125	0.0000139	0.0000610	0.0000651	0.0000285	0.000132	0.000132	0.000132	0.000132
	0.000013	mg/dm².day	**0.0000100**	**0.0000095**	**0.0000100**	**0.0000095**	**0.0000105**	**0.0000105**	**0.0000190**	**0.0000105**	0.0000112	0.0000141	0.0000633	0.0000667	0.0000288	0.000131	0.000131	0.000136	0.000131
Selenium, total	0.00050	mg	**0.00025**	**0.00025**	**0.00025**	**0.00025**	**0.00025**	**0.00025**	**0.00025**	**0.00025**	0.000250	0.0000277	0.000122	0.000130	0.0000571	0.000263	0.000263	0.000263	0.000263
	0.000026	mg/dm².day	**0.0000195**	**0.0000190**	**0.0000195**	**0.0000190**	**0.0000215**	**0.0000215**	**0.0000375**	**0.0000215**	0.0000224	0.0000275	0.000127	0.000130	0.0000576	0.000269	0.000269	0.000268	0.000269
Thallium, total	0.000050	mg	**0.000025**	**0.000025**	**0.000025**	**0.000025**	**0.000025**	**0.000025**	**0.000025**	**0.000025**	0.0000250	0.00000277	0.0000122	0.0000130	0.00000571	0.00002632	0.00002632	0.00002632	0.00002632
	0.0000026	mg/dm².day	**0.00000195**	**0.00000190**	**0.00000195**	**0.00000190**	**0.00000215**	**0.00000215**	**0.00000375**	**0.00000215**	0.00000224	0.00000275	0.0000127	0.0000130	0.00000576	0.00002688	0.00002688	0.00002679	0.00002688
Zinc, total	0.0015	mg	0.00400	**0.00075**	**0.00075**	**0.00075**	**0.00075**	**0.00075**	**0.00075**	**0.00075**	0.00116	0.000443	0.000366	0.000391	0.000171	0.000789	0.000789	0.000789	0.000789
	0.000079	mg/dm².day	0.000314	**0.0000565**	**0.0000590**	**0.0000565**	**0.0000645**	**0.0000645**	**0.0001130**	**0.0000645**	0.0000991	0.000442	0.000377	0.000393	0.000171	0.000806	0.000806	0.000807	0.000806

Notes:

Bold dustfall data indicate that the concentration was below the detection limit. The value was replaced with 0.5x detection limit concentration.

"-" = not applicable

** The average estimated Off-Site 24-hour PM_{10} concentration of 11.2 mg/m^3 was calculated based on the mean measured PM_{10} concentration in 2023 at the worker camp (27.6 mg/m^3) and the fraction of the predicted Project concentations at the worker camp and at off-site receptors (HHRA Update Report, Entia 2021, 2022a).*

Appendix B: Calculation of PM_{10}-Associated Concentrations of Contaminants of Potential Concern from 2023 Dustfall and PM_{10} Data

Contaminant of Potential Concern	Lowest Detection Limit	Units	Concentration of Contaminant of Potential Concern in Mean Off-site PM_{10} ($\mu g/m^3$)								
			Impact				Control				All Sites
			14	4	6	19	40	27	32	24	Mean
			Average Estimated Off-Site 24-hour PM_{10} = 11.2 $\mu g/m^3$ (*)								
Field Tests (Matrix: Air)											
Sampling time, field	1	days	-	-	-	-	-	-	-	-	-
Area sampled, field	0.010	cm²	-	-	-	-	-	-	-	-	-
Particulates (Matrix: Air)											
Dustfall, total	1.90	mg	-	-	-	-	-	-	-	-	-
	0.10	mg/dm².day	-	-	-	-	-	-	-	-	-
Total Metals (Matrix: Air)											
Aluminum, total	0.0030	mg	0.0386	0.282	0.100	0.122	0.153	0.146	0.0896	0.218	0.144
	0.000160	mg/dm².day	0.0385	0.290	0.100	0.122	0.157	0.148	0.0912	0.223	0.146
Antimony, total	0.000050	mg	0.0000310	0.000137	0.000146	0.0000639	0.000295	0.000295	0.000295	0.000295	0.000195
	0.0000026	mg/dm².day	0.0000308	0.000142	0.000146	0.0000645	0.000301	0.000301	0.000300	0.000301	0.000198
Arsenic, total	0.000050	mg	0.0000310	0.000503	0.000146	0.0000639	0.000295	0.000295	0.000295	0.000295	0.000240
	0.0000026	mg/dm².day	0.0000308	0.000515	0.000146	0.0000645	0.000301	0.000301	0.000300	0.000301	0.000245
Beryllium, total	0.00025	mg	0.000155	0.000683	0.000729	0.000320	0.00147	0.00147	0.00147	0.00147	0.000973
	0.000013	mg/dm².day	0.000158	0.000709	0.000747	0.000322	0.00147	0.00147	0.00152	0.00147	0.000983
Cadmium, total	0.000020	mg	0.0000124	0.0000546	0.0000583	0.0000256	0.000118	0.000118	0.000118	0.000118	0.0000778
	0.0000013	mg/dm².day	0.0000126	0.0000560	0.0000597	0.0000255	0.000119	0.000119	0.000120	0.000119	0.0000789
Chromium, total	0.00025	mg	0.000155	0.000683	0.000729	0.000320	0.00147	0.00147	0.00147	0.00147	0.000973
	0.000013	mg/dm².day	0.000158	0.000709	0.000747	0.000322	0.00147	0.00147	0.00152	0.00147	0.000983
Cobalt, total	0.000050	mg	0.0000310	0.000137	0.000146	0.0000639	0.000295	0.000295	0.000295	0.000295	0.000195
	0.0000026	mg/dm².day	0.0000308	0.000142	0.000146	0.0000645	0.000301	0.000301	0.000300	0.000301	0.000198
Copper, total	0.00050	mg	0.00031	0.00137	0.00146	0.000639	0.00295	0.00295	0.00295	0.00295	0.00195
	0.000026	mg/dm².day	0.00031	0.00142	0.00146	0.000645	0.00301	0.00301	0.00300	0.00301	0.00198
Iron, total	0.015	mg	0.0286	0.257	0.044	0.113	0.0884	0.0884	0.0884	0.200	0.113
	0.00079	mg/dm².day	0.0284	0.264	0.044	0.112	0.0903	0.0903	0.0904	0.204	0.115
Lead, total	0.000025	mg	0.0000335	0.000841	0.0000729	0.0000716	0.000147	0.000147	0.000147	0.000147	0.000201
	0.0000013	mg/dm².day	0.0000331	0.000866	0.0000747	0.0000713	0.000147	0.000147	0.000152	0.000147	0.000205
Lithium, total	0.0025	mg	0.00155	0.00683	0.00729	0.00320	0.0147	0.0147	0.0147	0.0147	0.00973
	0.00013	mg/dm².day	0.00158	0.00709	0.00747	0.00322	0.0147	0.0147	0.0152	0.0147	0.00983
Manganese, total	0.00010	mg	0.0494	0.0738	0.0589	0.0237	0.124	0.0979	0.0756	0.0796	0.0728
	0.0000052	mg/dm².day	0.0492	0.0762	0.0592	0.0236	0.126	0.0998	0.0771	0.0812	0.0741
Mercury, total	0.000025	mg	0.0000155	0.0000683	0.0000729	0.0000320	0.000147	0.000147	0.000147	0.000147	0.0000973
	0.0000013	mg/dm².day	0.0000158	0.0000709	0.0000747	0.0000322	0.000147	0.000147	0.000152	0.000147	0.0000983
Molybdenum, total	0.000025	mg	0.0000155	0.0000683	0.0000729	0.0000320	0.000147	0.000147	0.000147	0.000147	0.0000973
	0.0000013	mg/dm².day	0.0000158	0.0000709	0.0000747	0.0000322	0.000147	0.000147	0.000152	0.000147	0.0000983
Nickel, total	0.00025	mg	0.000155	0.000683	0.000729	0.000320	0.00147	0.00147	0.00147	0.00147	0.000973
	0.000013	mg/dm².day	0.000158	0.000709	0.000747	0.000322	0.00147	0.00147	0.00152	0.00147	0.000983
Selenium, total	0.00050	mg	0.000310	0.00137	0.00146	0.000639	0.00295	0.00295	0.00295	0.00295	0.00195
	0.000026	mg/dm².day	0.000308	0.00142	0.00146	0.000645	0.00301	0.00301	0.00300	0.00301	0.00198
Thallium, total	0.000050	mg	0.0000310	0.000137	0.000146	0.0000639	0.000295	0.000295	0.000295	0.000295	0.000195
	0.0000026	mg/dm².day	0.0000308	0.000142	0.000146	0.0000645	0.000301	0.000301	0.000300	0.000301	0.000198
Zinc, total	0.0015	mg	0.00497	0.00410	0.00438	0.00192	0.00884	0.00884	0.00884	0.00884	0.00634
	0.000079	mg/dm².day	0.00495	0.00422	0.00441	0.00192	0.00903	0.00903	0.00904	0.00903	0.00645

Notes:

Bold dustfall data indicate that the concentration was below the detection limit. The value was replaced with 0.5x detection limit concentration.

"-" = not applicable

** The average estimated Off-Site 24-hour PM_{10} concentration of 11.2 mg/m^3 was calculated based on the mean measured PM_{10} concentration in 2023 at the worker camp (27.6 mg/m^3) and the fraction of the predicted Project concentations at the worker camp and at off-site receptors (HHRA Update Report, Entia 2021, 2022a).*

APPENDIX C STATISTICAL COMPARISONS OF COPC CONCENTRATIONS IN ENVIRONMENTAL MEDIA

Appendix C.1 Before-After Control-Impact Analysis for Aluminum and Manganese in Dust

Appendix C.2 Statistical Comparison Tables for Soil Quality and Plant Tissue Quality Data

Appendix C.3 Before-After Control-Impact Analysis for Total Iron in Surface Water

Appendix C.4 Statistical Comparison Tables for Fish Tissue Quality Data

Appendix C.5 Statistical Comparison Tables for Small Mammal Tissue Quality Data

Appendix C.1 Before-After Control-Impact Analysis for Aluminum and Manganese in Dust

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Appendix C

C-1.1 Sample Sizes for Modelling

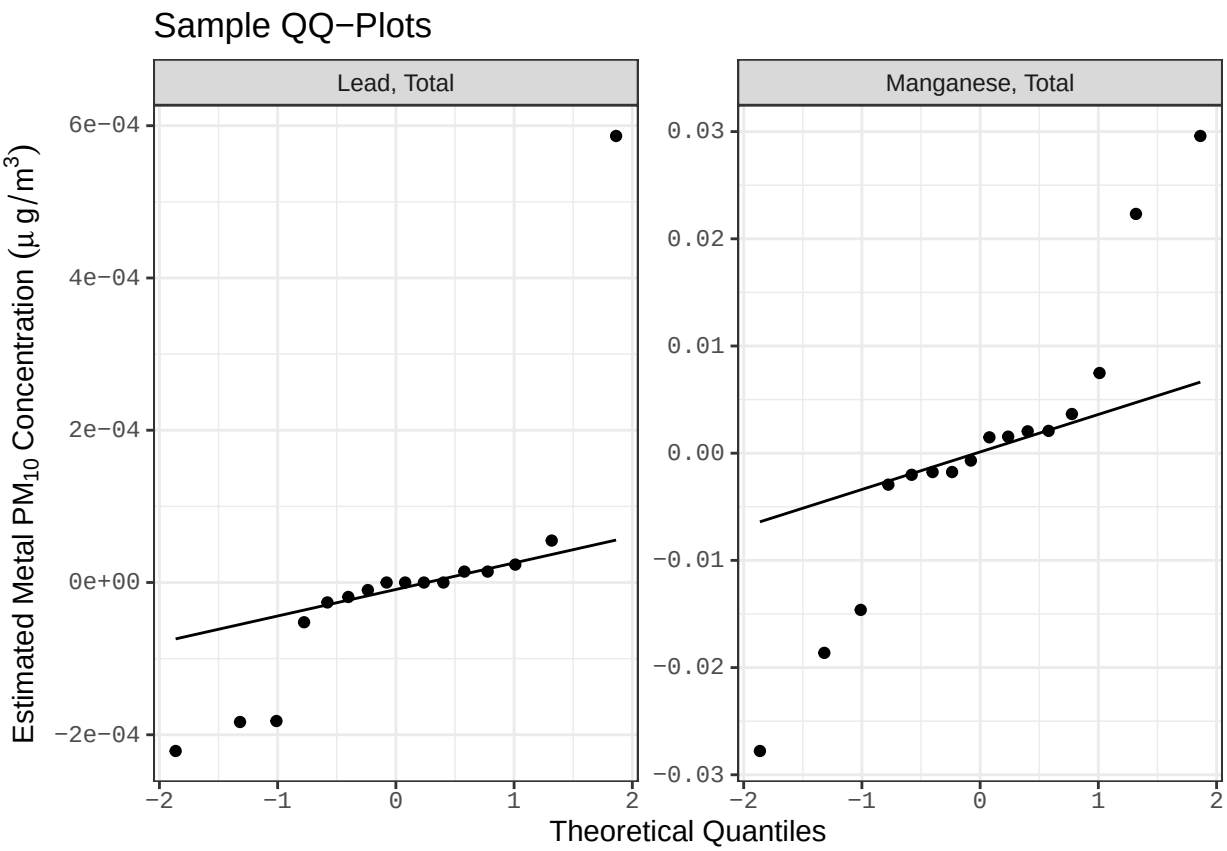
The samples sizes per analyte and year are summarised in the table below.

Table 1: Sample Summary of PM10 Metal Concentrations

Analyte	year	Location Type	N, total	N, detect	Median	Unit
Lead, Total	2022	Control	4	0	6.88e-05	ug/mˆ3
Lead, Total	2022	Impact	4	0	2.80e-05	ug/mˆ3
Lead, Total	2023	Control	4	0	1.47e-04	ug/mˆ3
Lead, Total	2023	Impact	4	3	7.23e-05	ug/mˆ3
Manganese, Total	2022	Control	4	3	3.50e-03	ug/mˆ3
Manganese, Total	2022	Impact	4	3	3.83e-03	ug/mˆ3
Manganese, Total	2023	Control	4	4	8.87e-02	ug/mˆ3
Manganese, Total	2023	Impact	4	4	5.42e-02	ug/mˆ3

C-1.2 Before-After Control-Impact (BACI) Linear Modeling

A models was fit to compare impact sites with control sites for lead, total and manganese, total. Non-detect values were set to half the detection limit.



Results of the linear regression BACI tests on lead, total and manganese, total concentrations:

Table 2: Lead, total model results

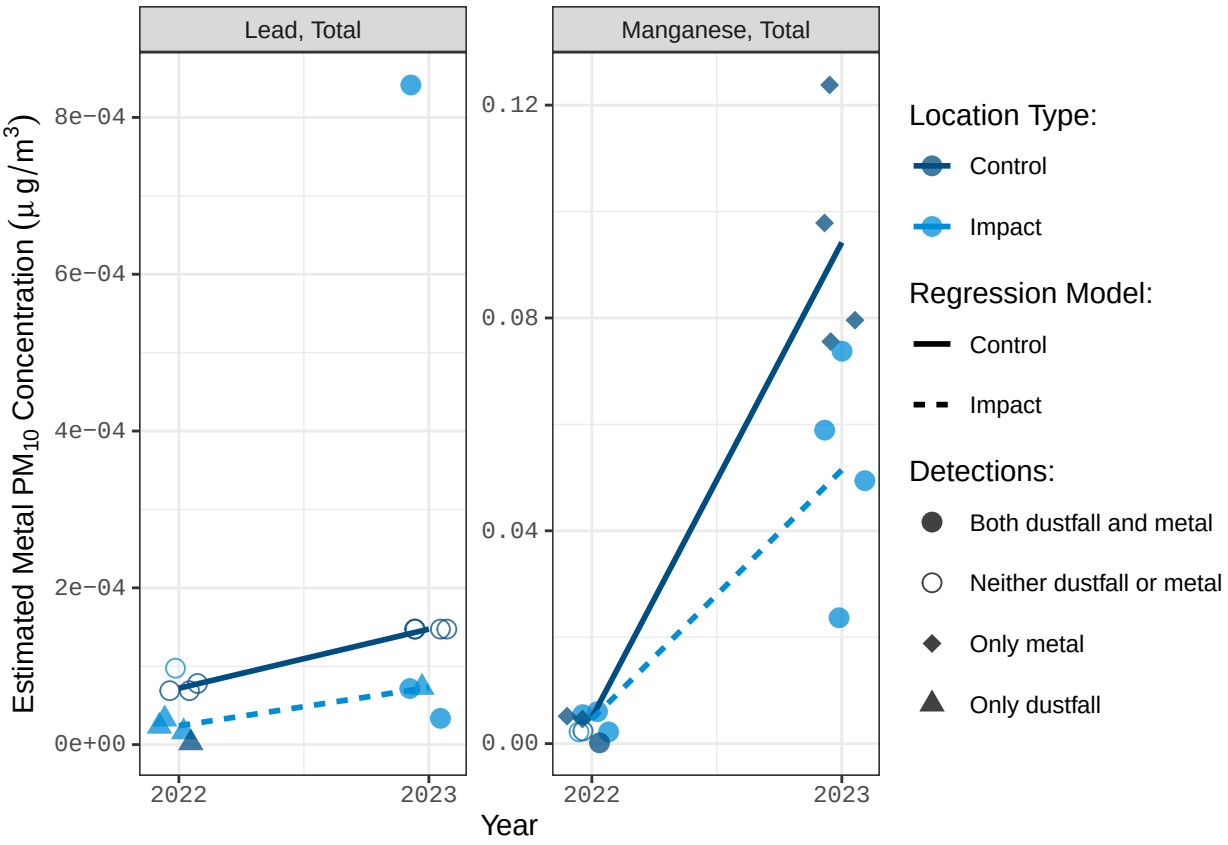
	Estimate	Std. Error	t value	Pr(>|t|)
year2023	0	0	0.670	0.52
loc_typeImpact	0	0	-0.086	0.93
year2023:loc_typeImpact	0	0	0.610	0.56

Table 3: Manganese, total model results

	Estimate	Standard Error	t-value	p-value
Year	0.091	0.011	8.400	0.000
Location Type (Class)	0.001	0.011	0.083	0.940
Year:Location Type	-0.044	0.015	-2.900	0.015

C-1.3 Model Summary

The overall model is shown below with all observations and model estimates plotted.



C-1.4 Conclusions

The change in lead, total concentrations at the impact sites from 2022 to 2023 was not significantly (p = 0.56) different from the change at the control sites, according to the test on the BACI term (Year:Location Type). The change in manganese, total concentrations at the impact sites from 2022 to 2023 was significantly (p = 0.015) different from the change at the control sites, according to the test on the BACI term (Year:Location Type) with the control site having higher concentrations in 2023 compared to impact, while the concentrations were very similar in 2022.

Appendix C.2 Statistical Comparison Tables for Soil Quality and Plant Tissue Quality Data

Table C-2.1: LSA-wide Statistical Comparison Results for Soil Quality, 2023 vs. 2021/2022

Contaminant of Potential Concern	Before (n)	After (n)	Before (mean)	Before (SD)	After (mean)	After (SD)	p-value (adj)	Is Diff.	2023 vs. 2021/22 Effect Size (%)
Aluminum	91	36	11219	7423	13509	7812	0.549	FALSE	21%
Antimony	91	36	0.28	0.183	0.344	0.209	0.154	FALSE	28%
Arsenic	91	36	3.92	4.74	6.99	9.62	0.137	FALSE	46%
Beryllium	91	36	0.309	0.203	0.425	0.342	0.194	FALSE	26%
Cadmium	91	36	0.209	0.201	0.212	0.192	0.811	FALSE	5%
Chromium	91	36	12.5	8.7	15.7	10.8	0.562	FALSE	18%
Cobalt	91	36	4.41	2.73	6.01	4.41	0.221	FALSE	29%
Copper	91	36	9.01	6.25	11.5	6.68	0.137	FALSE	29%
Iron	91	36	16266	9428	19618	10252	0.493	FALSE	21%
Lead	91	36	5.58	3.17	9.2	21.2	0.493	FALSE	18%
Lithium	91	36	4.89	3.33	6.34	3.89	0.194	FALSE	34%
Manganese	91	36	677	932	830	743	0.194	FALSE	33%
Mercury	91	36	0.059	0.04	0.047	0.031	0.194	FALSE	-17%
Molybdenum	91	36	1.246	1.341	1.279	1.185	0.811	FALSE	2%
pH	91	36	5.27	0.77	5.67	0.982	0.137	FALSE	7%
Phosphorus	91	36	818	408	819	309	0.811	FALSE	2%
Thallium	91	36	0.0740	0.0430	0.0830	0.0550	0.493	FALSE	10%
Zinc	91	36	50.0	31.9	56.7	38.8	0.811	FALSE	-4%

Notes:

n = Number of samples

SD = Standard deviation

adj = adjusted p-value to control for mutiple testing

Table C-2.2: Statistical Comparison of Soil Quality for each Subarea, 2023 vs. 2021/2022

Contaminant of Potential Concern	Sub Area	Before (n)	After (n)	Before (mean)	Before (SD)	After (mean)	After (SD)	p-value (adj)	Is Diff.	2023 vs. 2021/22 Effect Size (%)
Aluminum	Near	26	9	10726	8135	12868	5922	0.764	FALSE	26%
	Mid	28	10	10047	7471	12694	11288	0.952	FALSE	-3%
	Control	26	12	11764	7234	13465	7402	0.812	FALSE	28%
	Road	11	5	14081	5887	16400	3666	0.808	FALSE	35%
Antimony	Near	26	9	0.242	0.106	0.309	0.113	0.564	FALSE	37%
	Mid	28	10	0.281	0.195	0.369	0.306	0.812	FALSE	25%
	Control	26	12	0.333	0.248	0.386	0.213	0.764	FALSE	24%
	Road	11	5	0.239	0.066	0.254	0.038	0.813	FALSE	6%
Arsenic	Near	26	9	4.26	6.57	7.39	9.835	0.49	FALSE	87%
	Mid	28	10	3.56	4.39	11.0	15.0	0.49	FALSE	100%
	Control	26	12	4.25	3.99	4.86	3.628	0.832	FALSE	9%
	Road	11	5	3.25	0.79	3.38	0.724	0.832	FALSE	6%
Beryllium	Near	26	9	0.319	0.263	0.472	0.452	0.677	FALSE	42%
	Mid	28	10	0.322	0.215	0.486	0.459	0.812	FALSE	25%
	Control	26	12	0.274	0.156	0.338	0.189	0.812	FALSE	14%
	Road	11	5	0.335	0.102	0.428	0.078	0.564	FALSE	32%
Cadmium	Near	26	9	0.173	0.135	0.178	0.121	0.823	FALSE	11%
	Mid	28	10	0.272	0.254	0.296	0.223	0.839	FALSE	7%
	Control	26	12	0.179	0.145	0.192	0.233	0.872	FALSE	-3%
	Road	11	5	0.202	0.277	0.149	0.053	0.872	FALSE	9%
Chromium	Near	26	9	11.7	8.56	13.69	5.06	0.764	FALSE	42%
	Mid	28	10	8.77	5.56	9.63	9.01	0.841	FALSE	-14%
	Control	26	12	16.2	10.8	21.3	14.4	0.812	FALSE	28%
	Road	11	5	15.3	5.68	18.26	2.86	0.764	FALSE	32%
Cobalt	Near	26	9	3.60	2.35	5.17	2.44	0.49	FALSE	55%
	Mid	28	10	3.56	2.91	3.57	2.56	0.823	FALSE	18%
	Control	26	12	5.32	2.55	7.98	6.35	0.812	FALSE	20%
	Road	11	5	6.30	2.05	7.68	0.99	0.677	FALSE	21%
Copper	Near	26	9	7.88	6.36	9.77	3.39	0.49	FALSE	38%
	Mid	28	10	9.11	7.19	11.1	8.58	0.812	FALSE	15%
	Control	26	12	10.2	6.40	13.9	7.76	0.49	FALSE	43%
	Road	11	5	8.56	1.17	9.48	2.52	0.812	FALSE	9%

Notes:

n = Number of samples

SD = Standard deviation

adj = adjusted p-value to control for mutiple testing

Table C-2.2: Statistical Comparison of Soil Quality for each Subarea, 2023 vs. 2021/2022

Contaminant of Potential Concern	Sub Area	Before (n)	After (n)	Before (mean)	Before (SD)	After (mean)	After (SD)	p-value (adj)	Is Diff.	2023 vs. 2021/22 Effect Size (%)
Iron	Near	26	9	13291	5747	18211	5575	0.551	FALSE	53%
	Mid	28	10	12356	8823	13047	8479	0.812	FALSE	24%
	Control	26	12	21074	11108	23666	13185	0.904	FALSE	-7%
	Road	11	5	21886	6172	25580	3404	0.677	FALSE	14%
Lead	Near	26	9	6.79	3.35	20.1	42.0	0.774	FALSE	36%
	Mid	28	10	4.69	3.10	5.27	3.41	0.832	FALSE	13%
	Control	26	12	5.88	3.24	5.73	3.34	0.943	FALSE	3%
	Road	11	5	4.26	1.36	5.46	0.78	0.49	FALSE	23%
Lithium	Near	26	9	4.56	3.56	5.87	3.00	0.683	FALSE	47%
	Mid	28	10	4.22	3.58	5.39	5.29	0.812	FALSE	22%
	Control	26	12	5.12	2.88	6.42	3.70	0.812	FALSE	23%
	Road	11	5	6.85	2.65	8.88	1.72	0.73	FALSE	48%
Manganese	Near	26	9	439	526	615	427	0.564	FALSE	62%
	Mid	28	10	704	1231	1002	1134	0.774	FALSE	56%
	Control	26	12	630	920	552	399	0.832	FALSE	8%
	Road	11	5	1281	601	1540	301	0.764	FALSE	27%
Mercury	Near	26	9	0.0630	0.0450	0.0480	0.0270	0.812	FALSE	-13%
	Mid	28	10	0.0720	0.0460	0.0710	0.0390	0.812	FALSE	-11%
	Control	26	12	0.0530	0.0270	0.0350	0.0190	0.49	FALSE	-32%
	Road	11	5	0.0290	0.0200	0.0270	0.0110	0.952	FALSE	2%
Molybdenum	Near	26	9	0.852	0.44	0.861	0.459	0.812	FALSE	-6%
	Mid	28	10	1.93	2.14	2.02	1.67	0.832	FALSE	8%
	Control	26	12	1.11	0.663	1.26	1.09	0.812	FALSE	10%
	Road	11	5	0.755	0.461	0.594	0.075	0.812	FALSE	-13%
pH	Near	26	9	4.82	0.755	5.04	0.961	0.808	FALSE	5%
	Mid	28	10	5.28	0.673	5.79	0.958	0.49	FALSE	10%
	Control	26	12	5.55	0.817	5.85	1.05	0.808	FALSE	5%
	Road	11	5	5.61	0.389	6.10	0.479	0.26	FALSE	10%
Phosphorus	Near	26	9	760	549	791	344	0.832	FALSE	6%
	Mid	28	10	850	386	847	322	0.872	FALSE	4%
	Control	26	12	831	333	715	262	0.774	FALSE	-14%
	Road	11	5	839	227	1060	258	0.49	FALSE	26%

Notes:

n = Number of samples

SD = Standard deviation

adj = adjusted p-value to control for mutiple testing

Table C-2.2: Statistical Comparison of Soil Quality for each Subarea, 2023 vs. 2021/2022

Contaminant of Potential Concern	Sub Area	Before (n)	After (n)	Before (mean)	Before (SD)	After (mean)	After (SD)	p-value (adj)	Is Diff.	2023 vs. 2021/22 Effect Size (%)
Thallium	Near	26	9	0.0840	0.0390	0.0870	0.0290	0.812	FALSE	13%
	Mid	28	10	0.0770	0.0590	0.1050	0.0920	0.812	FALSE	21%
	Control	26	12	0.0610	0.0280	0.0600	0.0320	0.841	FALSE	-4%
	Road	11	5	0.0720	0.0250	0.0840	0.0160	0.764	FALSE	23%
Zinc	Near	26	9	38.9	19.5	46.8	26.9	0.812	FALSE	12%
	Mid	28	10	36.6	18.6	40.6	34.1	0.812	FALSE	-16%
	Control	26	12	53.9	30.7	48.6	25.4	0.812	FALSE	-21%
	Road	11	5	102	33.2	126	18.3	0.564	FALSE	30%

Notes:

n = Number of samples

SD = Standard deviation

adj = adjusted p-value to control for mutiple testing

Table C-2.3: Statistical Results for Soil Quality Comparing Control and Impact Locations, 2023

Contaminant of Potential Concern	Control (n)	Impact (n)	Control (mean)	Control (SD)	Impact (mean)	Impact (SD)	p-value (adj)	Is Diff.	Impact vs. Control Effect Size (%)
Aluminum	12	7	13465	7402	13651	6021	0.708	FALSE	35%
Antimony	12	7	0.386	0.213	0.287	0.115	0.708	FALSE	-19%
Arsenic	12	7	4.86	3.63	8.42	11.1	0.708	FALSE	70%
Beryllium	12	7	0.338	0.189	0.537	0.497	0.683	FALSE	59%
Cadmium	12	7	0.192	0.233	0.197	0.131	0.708	FALSE	37%
Chromium	12	7	21.3	14.4	14.0	5.03	0.978	FALSE	1%
Cobalt	12	7	7.98	6.35	5.45	2.07	0.978	FALSE	4%
Copper	12	7	13.9	7.76	10.2	2.39	0.683	FALSE	-20%
Iron	12	7	23666	13185	18157	4297	0.821	FALSE	21%
Lead	12	7	5.73	3.34	24.1	47.7	0.683	FALSE	86%
Lithium	12	7	6.42	3.70	6.09	2.47	0.821	FALSE	12%
Manganese	12	7	552	399	709	428	0.708	FALSE	31%
Mercury	12	7	0.035	0.019	0.054	0.028	0.444	FALSE	60%
Molybdenum	12	7	1.261	1.085	0.916	0.509	0.708	FALSE	-17%
pH	12	7	5.85	1.05	5.14	0.921	0.683	FALSE	-12%
Phosphorus	12	7	715	262	806	308	0.708	FALSE	14%
Thallium	12	7	0.0600	0.0320	0.0940	0.0290	0.444	FALSE	73%
Zinc	12	7	48.6	25.4	46.1	24.8	0.821	FALSE	25%

Notes:

n = Number of samples

SD = Standard deviation

adj = adjusted p-value to control for mutiple testing

Table C-2.4: LSA-wide Statistical Comparison Results for Tissue Quality of Labrador Tea, Sedge, and Willow, 2023 vs. 2021/2022

Media Species	Contaminant of Potential	Before (n)	After (n)	Before (mean)	Before (SD)	After (mean)	After (SD)	p-value (adj)	Is Diff.	2023 vs. 2021/22 Effect Size (%)
Willow	Aluminum	76	33	28.907	45.291	80.098	117.159	0	TRUE	225%
Willow	Arsenic	76	33	0.037	0.039	0.064	0.052	0	TRUE	86%
Willow	Cadmium	76	33	0.977	1.25	1.84	2.61	0.081	FALSE	56%
Willow	Cobalt	76	33	0.661	0.602	0.977	0.57	0.002	TRUE	54%
Willow	Copper	76	33	3.675	1.166	2.939	1.089	0.005	TRUE	-23%
Willow	Iron	76	33	79.204	65.845	137.423	180.743	0	TRUE	49%
Willow	Manganese	76	33	257.535	241.763	355.203	221.391	0	TRUE	65%
Willow	Mercury	76	33	0.01	0.002	0.014	0.003	0	TRUE	44%
Willow	Molybdenum	76	33	0.965	1.55	1.114	0.845	0.028	TRUE	33%
Willow	Zinc	76	33	86.381	59.967	126.706	84.948	0.001	TRUE	49%
Labrador Tea	Aluminum	27	11	20.296	16.344	41.4	16.83	0.001	TRUE	150%
Labrador Tea	Copper	27	11	3.176	0.751	3.29	0.568	0.583	FALSE	6%
Labrador Tea	Iron	27	11	36.935	8.167	55.473	18.987	0	TRUE	46%
Labrador Tea	Manganese	27	11	982.278	555.368	1281.545	575.448	0.156	FALSE	38%
Labrador Tea	Mercury	27	11	0.008	0.003	0.011	0.002	0.081	FALSE	36%
Labrador Tea	Molybdenum	27	11	0.517	0.486	0.485	0.477	0.689	FALSE	-12%
Labrador Tea	Zinc	27	11	24.844	5.384	25.545	3.153	0.623	FALSE	4%
Sedge	Aluminum	53	25	12.924	18.835	85.38	169.678	0	TRUE	456%
Sedge	Cadmium	53	25	0.02	0.033	0.028	0.02	0.006	TRUE	108%
Sedge	Cobalt	53	25	0.062	0.073	0.094	0.115	0.156	FALSE	37%
Sedge	Copper	53	25	2.836	1.835	2.629	1.561	0.689	FALSE	-8%
Sedge	Iron	53	25	84.921	67.896	173.072	269.36	0.018	TRUE	54%
Sedge	Manganese	53	25	462.117	294.014	765.68	583.952	0.006	TRUE	63%
Sedge	Mercury	53	25	0.006	0.003	0.01	0.004	0	TRUE	78%
Sedge	Molybdenum	53	25	3.636	4.759	3.621	4.277	0.745	FALSE	-7%
Sedge	Zinc	53	25	26.51	10.927	28.854	13.052	0.374	FALSE	11%

Notes:

n = Number of samples

SD = Standard deviation

adj = adjusted p-value to control for mutiple testing

Table C-2.5: Statistical Omparison of Tissue Quality of Labrador Tea, Sedge, and Willow in each Subarea, 2023 vs. 2021/2022

Media Species	Contaminant of Potential	Location	Before (n)	After (n)	Before (mean)	Before (SD)	After (mean)	After (SD)	p-value (adj)	Is Diff.	2023 vs. 2021/22 Effect Size (%)
Willow	Aluminum	Near	23	8	32.67	38.195	80.281	53.471	0.008	TRUE	244%
		Mid	20	8	14.445	8.81	34.4	9.877	0.002	TRUE	174%
		Control	24	12	11.26	10.612	35.533	14.347	0	TRUE	275%
		Road	9	5	98.489	88.127	259.88	231.372	0.012	TRUE	169%
	Arsenic	Near	23	8	0.027	0.023	0.059	0.033	0.005	TRUE	153%
		Mid	20	8	0.036	0.025	0.052	0.034	0.41	FALSE	36%
		Control	24	12	0.031	0.038	0.053	0.044	0.056	FALSE	104%
		Road	9	5	0.082	0.069	0.115	0.092	0.265	FALSE	58%
	Cadmium	Near	23	8	0.992	1.388	1.879	2.272	0.455	FALSE	67%
		Mid	20	8	0.734	0.638	1.315	1.096	0.289	FALSE	93%
		Control	24	12	1.166	1.652	2.498	3.816	0.474	FALSE	49%
		Road	9	5	0.976	0.49	1.012	0.639	0.805	FALSE	-13%
	Cobalt	Near	23	8	0.748	0.921	1.099	0.568	0.15	FALSE	80%
		Mid	20	8	0.649	0.425	1.024	0.511	0.101	FALSE	52%
		Control	24	12	0.705	0.407	1.048	0.68	0.298	FALSE	37%
		Road	9	5	0.345	0.122	0.536	0.113	0.028	TRUE	60%
	Copper	Near	23	8	3.882	0.805	2.965	0.899	0.011	TRUE	-27%
		Mid	20	8	3.897	1.193	3.002	0.959	0.092	FALSE	-27%
		Control	24	12	3.407	1.552	2.865	1.507	0.416	FALSE	-22%
		Road	9	5	3.371	0.296	2.974	0.426	0.092	FALSE	-12%
	Iron	Near	23	8	70.661	49.318	125.319	93.923	0.011	TRUE	81%
		Mid	20	8	70.95	28.124	77.488	21.665	0.41	FALSE	16%
		Control	24	12	56.392	19.221	74.875	34.28	0.045	TRUE	31%
		Road	9	5	180.211	132.658	402.8	366.889	0.018	TRUE	105%
	Manganese	Near	23	8	314.039	335.592	313.325	166.539	0.505	FALSE	29%
		Mid	20	8	287.755	188.479	435.188	302.463	0.113	FALSE	62%
		Control	24	12	217.761	202.036	395.55	211.703	0.003	TRUE	113%
		Road	9	5	152.044	88.315	197.4	88.96	0.242	FALSE	34%
	Mercury	Near	23	8	0.01	0.003	0.014	0.002	0.003	TRUE	47%
		Mid	20	8	0.01	0.003	0.015	0.002	0.001	TRUE	53%
		Control	24	12	0.009	0.002	0.014	0.003	0.001	TRUE	43%
		Road	9	5	0.01	0.002	0.014	0.003	0.011	TRUE	34%

Notes:

n = Number of samples

SD = Standard deviation

adj = adjusted p-value to control for mutiple testing

Table C-2.5: Statistical Omparison of Tissue Quality of Labrador Tea, Sedge, and Willow in each Subarea, 2023 vs. 2021/2022

Media Species	Contaminant of Potential	Location	Before (n)	After (n)	Before (mean)	Before (SD)	After (mean)	After (SD)	p-value (adj)	Is Diff.	2023 vs. 2021/22 Effect Size (%)
Willow	Molybdenum	Near	23	8	0.644	0.437	0.875	0.4	0.169	FALSE	43%
		Mid	20	8	1.672	2.837	1.375	0.83	0.595	FALSE	26%
		Control	24	12	0.879	0.572	1.268	1.129	0.463	FALSE	23%
		Road	9	5	0.44	0.233	0.709	0.434	0.085	FALSE	62%
	Zinc	Near	23	8	96.578	67.448	93.931	64.666	0.663	FALSE	-13%
		Mid	20	8	68.338	41.454	109.294	47.211	0.003	TRUE	93%
		Control	24	12	88.197	72.446	165.658	115.331	0.008	TRUE	94%
		Road	9	5	95.578	28.54	113.52	49.079	0.65	FALSE	10%
Labrador Tea	Aluminum	Mid	16	5	22.506	13.185	50.56	17.153	0.011	TRUE	154%
		Control	11	6	17.082	20.361	33.767	13.314	0.038	TRUE	183%
	Copper	Mid	16	5	3.219	0.751	3.408	0.797	0.697	FALSE	7%
		Control	11	6	3.115	0.783	3.192	0.334	0.71	FALSE	6%
	Iron	Mid	16	5	37.134	7.843	68.46	21.309	0.002	TRUE	82%
		Control	11	6	36.645	9	44.65	6.966	0.108	FALSE	25%
	Manganese	Mid	16	5	1039.094	578.653	1435.2	611.323	0.436	FALSE	40%
		Control	11	6	899.636	535.716	1153.5	565.707	0.425	FALSE	38%
	Mercury	Mid	16	5	0.008	0.003	0.011	0.002	0.219	FALSE	49%
		Control	11	6	0.009	0.003	0.01	0.002	0.483	FALSE	22%
	Molybdenum	Mid	16	5	0.507	0.534	0.482	0.658	0.666	FALSE	-24%
		Control	11	6	0.531	0.431	0.487	0.329	0.71	FALSE	-17%
	Zinc	Mid	16	5	24.9	6.512	26.82	3.696	0.521	FALSE	10%
		Control	11	6	24.764	3.43	24.483	2.444	0.805	FALSE	-2%
Sedge	Aluminum	Near	13	5	4.669	3.471	192.5	364.304	0.001	TRUE	782%
		Mid	18	7	8.506	6.622	26.471	12.11	0.002	TRUE	277%
		Control	15	8	8.307	13.97	28.562	17.657	0.003	TRUE	429%
		Road	7	5	49.507	25.496	151.64	83.071	0.011	TRUE	219%
	Cadmium	Near	13	5	0.013	0.014	0.017	0.013	0.275	FALSE	103%
		Mid	18	7	0.027	0.041	0.031	0.016	0.273	FALSE	89%
		Control	15	8	0.017	0.038	0.025	0.016	0.201	FALSE	115%
		Road	7	5	0.022	0.021	0.042	0.029	0.341	FALSE	107%

Notes:

n = Number of samples

SD = Standard deviation

adj = adjusted p-value to control for mutiple testing

Table C-2.5: Statistical Omparison of Tissue Quality of Labrador Tea, Sedge, and Willow in each Subarea, 2023 vs. 2021/2022

Media Species	Contaminant of Potential	Location	Before (n)	After (n)	Before (mean)	Before (SD)	After (mean)	After (SD)	p-value (adj)	Is Diff.	2023 vs. 2021/22 Effect Size (%)
Sedge	Cobalt	Near	13	5	0.048	0.044	0.213	0.219	0.273	FALSE	76%
		Mid	18	7	0.054	0.056	0.063	0.033	0.436	FALSE	47%
		Control	15	8	0.065	0.047	0.041	0.019	0.696	FALSE	-14%
		Road	7	5	0.105	0.159	0.104	0.061	0.586	FALSE	45%
	Copper	Near	13	5	2.668	1.544	2.53	1.525	0.805	FALSE	-7%
		Mid	18	7	3.883	2.275	3.101	1.866	0.681	FALSE	-15%
		Control	15	8	1.752	1.003	2.54	1.833	0.856	FALSE	11%
		Road	7	5	2.781	1.059	2.208	0.737	0.455	FALSE	-22%
	Iron	Near	13	5	61.815	33.538	357.72	561.923	0.078	FALSE	80%
		Mid	18	7	93.044	51.277	93.786	30.83	0.685	FALSE	17%
		Control	15	8	61.993	30.062	67.05	16.256	0.787	FALSE	6%
		Road	7	5	156.071	139.888	269.06	173.387	0.28	FALSE	79%
	Manganese	Near	13	5	421.915	348.717	461.2	117.978	0.498	FALSE	49%
		Mid	18	7	476.944	269.91	874.714	314.186	0.02	TRUE	87%
		Control	15	8	429.487	235.937	999.125	932.843	0.067	FALSE	91%
		Road	7	5	568.571	386.822	544	232.499	0.894	FALSE	-6%
	Mercury	Near	13	5	0.004	0.002	0.01	0.003	0.01	TRUE	136%
		Mid	18	7	0.007	0.002	0.01	0.005	0.067	FALSE	51%
		Control	15	8	0.006	0.003	0.01	0.003	0.066	FALSE	68%
		Road	7	5	0.007	0.003	0.012	0.003	0.091	FALSE	71%
	Molybdenum	Near	13	5	1.71	1.204	1.589	1.433	0.642	FALSE	-16%
		Mid	18	7	5.476	6.982	2.829	2.06	0.582	FALSE	-29%
		Control	15	8	4.128	3.596	7.052	6.05	0.341	FALSE	39%
		Road	7	5	1.43	0.779	1.274	0.778	0.826	FALSE	-8%
	Zinc	Near	13	5	22.825	7.722	22.08	6.539	0.894	FALSE	3%
		Mid	18	7	30.083	11.237	34.636	18.033	0.71	FALSE	10%
		Control	15	8	24.396	12.186	25.25	8.844	0.65	FALSE	12%
		Road	7	5	28.693	11.257	33.3	13.72	0.598	FALSE	17%

Notes:

n = Number of samples

SD = Standard deviation

adj = adjusted p-value to control for mutiple testing

Table C-2.6: Statistical Results for Tissue Quality of Willow Samples Comparing Control and Impact Locations, 2023

Contaminant of Potential Concern	Control (n)	Impact (n)	Control (mean)	Control (SD)	Impact (mean)	Impact (SD)	p-value (adj)	Is Diff.	Impact vs. Control Effect Size (%)
Aluminum	12	8	35.5	14.3	80.3	53.5	0.026	TRUE	103%
Arsenic	12	8	0.0530	0.0440	0.0590	0.0330	0.819	FALSE	29%
Cadmium	12	8	2.498	3.816	1.879	2.272	0.9	FALSE	11%
Cobalt	12	8	1.05	0.68	1.10	0.57	0.832	FALSE	17%
Copper	12	8	2.87	1.51	2.97	0.90	0.819	FALSE	20%
Iron	12	8	74.9	34.3	125	93.9	0.347	FALSE	48%
Manganese	12	8	396	212	313	167	0.819	FALSE	-17%
Mercury	12	8	0.0140	0.00300	0.0140	0.00200	0.883	FALSE	3%
Molybdenum	12	8	1.27	1.13	0.875	0.400	0.832	FALSE	-13%
Zinc	12	8	166	115	93.9	64.7	0.347	FALSE	-42%

Notes:

n = Number of samples

SD = Standard deviation

adj = adjusted p-value to control for mutiple testing

Appendix C.3 Before-After Control-Impact Analysis for Total Iron in Surface Water

Contents

C-3.1 Water Quality **C-1**
C-3.1.1 Total Iron C-1

Appendix C

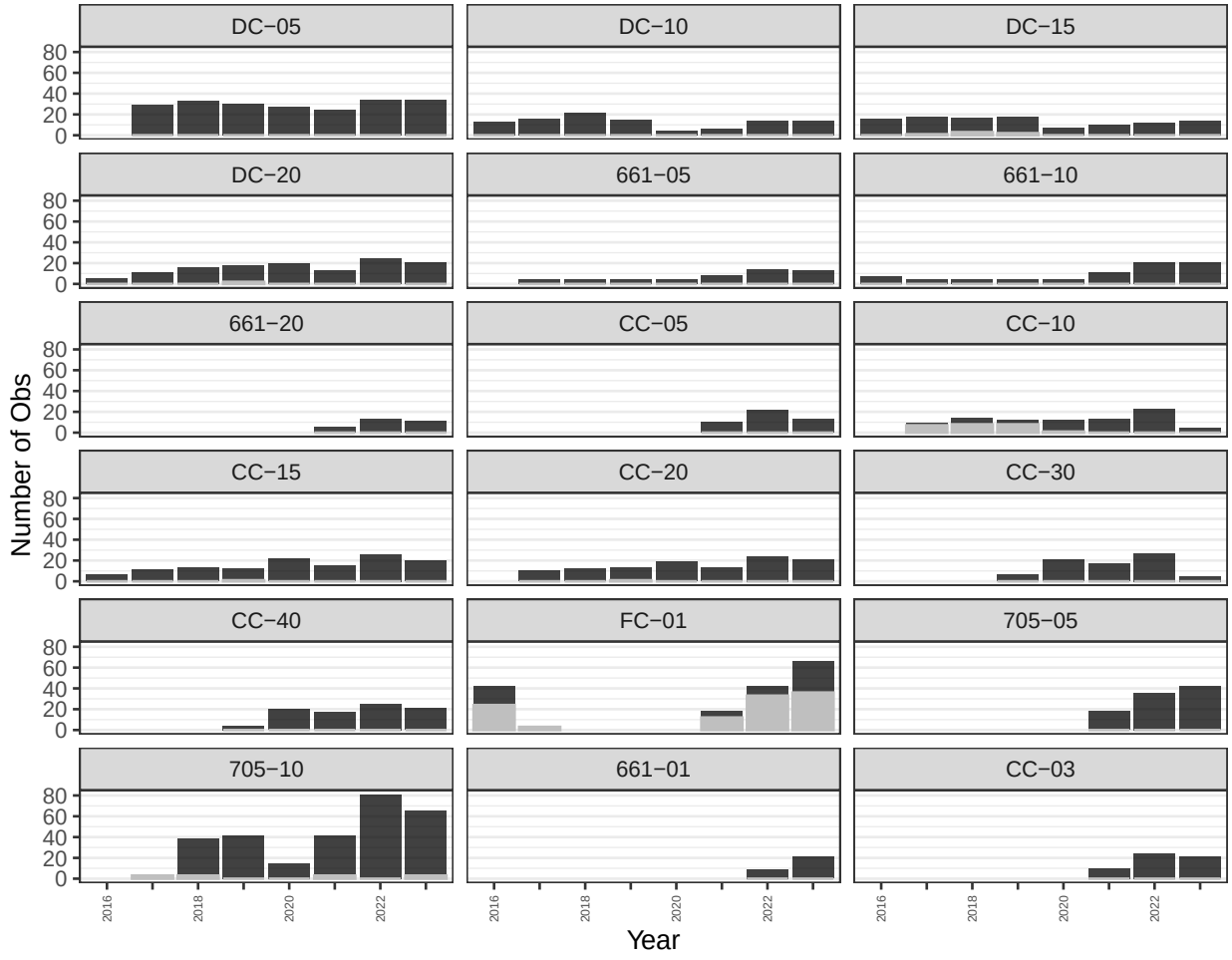
C-3.1 Water Quality

C-3.1.1 Total Iron

1 All Watersheds

1.1 Censored Data

The following charts indicate the number of measurements taken in each year from each stream that were below the detection limit (light gray) or above the detection limit (dark gray).



Observations at or below the analytical detection limit were considered censored. Data were excluded from the analysis if greater than 70% of observations from a site were censored or if greater than 50% of observations in a site's sampling year were censored. If more than 10% of observations from a site in a sampling year were censored, data were flagged to caution interpretation of results. The following observations were excluded:

Watershed	Site	Year	Class	Period	#Obs Removed
All	CC-10	2017	monit	before	9
All	CC-10	2018	monit	before	14
All	CC-10	2019	monit	before	12
All	FC-01	2016	control	before	42
All	FC-01	2017	control	before	3
All	FC-01	2021	control	before	18
All	FC-01	2022	control	before	42
All	FC-01	2022	control	after	42
All	FC-01	2023	control	after	66
All	705-10	2017	control	before	3

1.2 Sample Sizes for Modelling

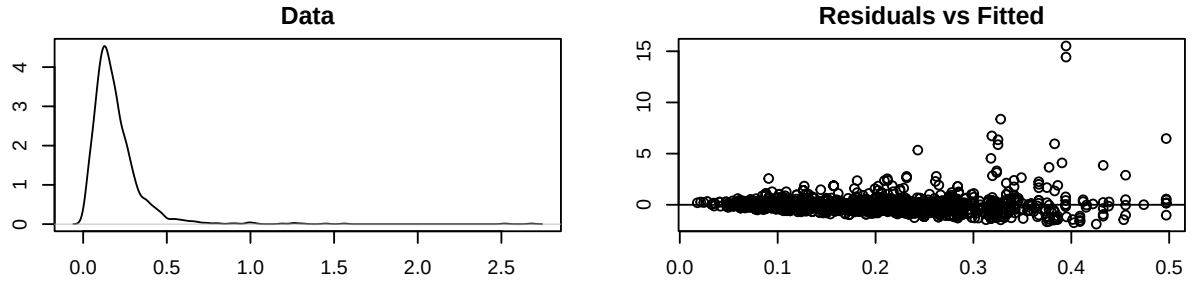
The remaining sample sizes per site and period are summarised in the table below.

Watershed	Site	Period	N	Median	% Censored
All	DC-05	before	168	0.1040	0.000
All	DC-05	after	43	0.0960	0.000
All	DC-10	before	85	0.0900	0.000
All	DC-10	after	19	0.0440	0.000
All	DC-15	before	95	0.0820	6.316
All	DC-15	after	17	0.0460	0.000
All	DC-20	before	100	0.1465	2.000
All	DC-20	after	28	0.2645	0.000
All	661-05	before	35	0.1930	0.000
All	661-05	after	16	0.1760	0.000
All	661-10	before	49	0.2100	0.000
All	661-10	after	27	0.1980	0.000
All	661-20	before	15	0.1960	0.000
All	661-20	after	14	0.1645	0.000
All	CC-05	before	25	0.2220	0.000
All	CC-05	after	20	0.1515	0.000
All	CC-10	before	12	0.0255	8.333
All	CC-15	before	98	0.1410	1.020
All	CC-15	after	27	0.1800	0.000
All	CC-20	before	84	0.1460	1.190
All	CC-20	after	28	0.1780	0.000
All	CC-30	before	64	0.2935	0.000
All	CC-30	after	12	0.3155	0.000
All	CC-40	before	59	0.3040	0.000
All	CC-40	after	28	0.3645	0.000
All	705-05	before	45	0.2100	0.000
All	705-05	after	51	0.1970	0.000
All	705-10	before	15	0.1080	0.000
All	661-01	before	3	0.0930	0.000
All	661-01	after	27	0.1160	0.000
All	CC-03	before	27	0.2200	0.000
All	CC-03	after	28	0.1470	0.000

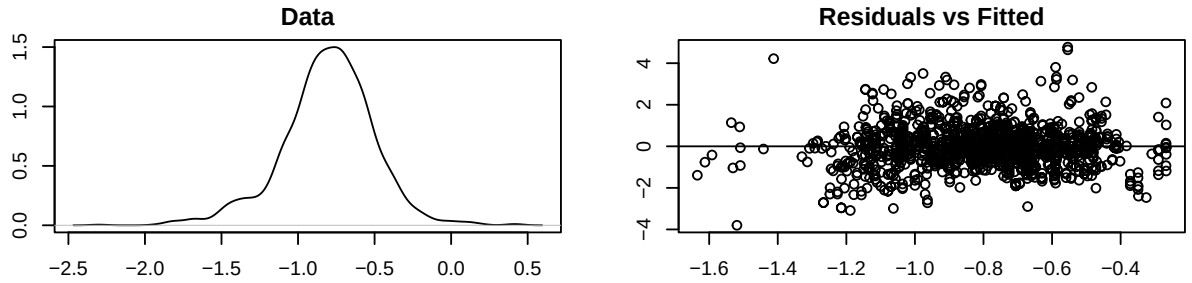
1.3 Initial Model Fit

Initially a model was fit to all sites to assess the need for transformations.

Natural Scale Model



Log−10 Transformed Model



Outliers

The following is a summary of outliers identified (if any) using preliminary regression models. All data points were plotted in the summary figures. The analysis needs to be interpreted with care and in conjunction with graphical displays if large outliers are present.

Outliers on natural scale:

Watershed	Site	Year	Month	Class	Period	Value	Fitted	Std. Resid	Detected
All	661-05	2023	11	monit	after	2.680	0.3946	15.518	Y
All	661-05	2023	11	monit	after	2.520	0.3946	14.431	Y
All	CC-15	2023	5	monit	after	1.560	0.3278	8.366	Y
All	DC-20	2019	5	monit	before	1.310	0.3188	6.730	Y
All	CC-40	2023	5	monit	after	1.450	0.4969	6.471	Y
All	DC-20	2018	5	monit	before	1.260	0.3251	6.348	Y
All	CC-05	2023	5	monit	after	1.260	0.3830	5.955	Y
All	DC-20	2018	5	monit	before	1.190	0.3251	5.873	Y
All	DC-20	2017	10	monit	before	1.030	0.2432	5.342	Y
All	CC-20	2023	5	monit	after	0.986	0.3179	4.536	Y
All	661-20	2023	5	monit	after	0.993	0.3905	4.091	Y
All	CC-30	2022	5	monit	before	1.000	0.4326	3.853	Y
All	DC-20	2023	5	monit	after	0.916	0.3773	3.658	Y
All	CC-03	2023	5	control	after	0.812	0.3237	3.315	Y
All	CC-03	2023	5	control	after	0.787	0.3237	3.146	Y

Outliers on log scale:

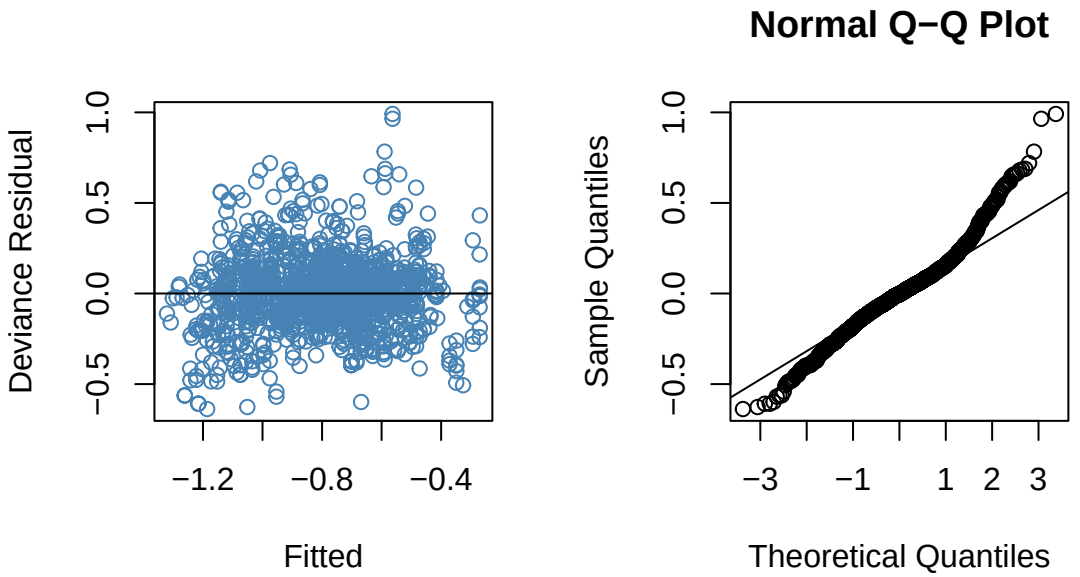
Watershed	Site	Year	Month	Class	Period	Value	Fitted	Std. Resid	Detected
All	661-05	2023	11	monit	after	0.4281	-0.5542	4.773	Y
All	661-05	2023	11	monit	after	0.4014	-0.5542	4.644	Y
All	CC-10	2020	11	monit	before	-0.5436	-1.4120	4.220	Y
All	CC-15	2023	5	monit	after	0.1931	-0.5897	3.804	Y
All	CC-10	2020	4	monit	before	-2.3010	-1.5190	-3.800	N
All	DC-15	2018	5	monit	before	-0.2549	-0.9761	3.505	Y
All	DC-20	2018	5	monit	before	0.1004	-0.5870	3.340	Y
All	DC-15	2023	5	monit	after	-0.2240	-0.9104	3.335	Y
All	661-01	2022	10	control	after	-0.3288	-1.0122	3.321	Y
All	DC-20	2018	5	monit	before	0.0755	-0.5870	3.220	Y
All	DC-20	2019	5	monit	before	0.1173	-0.5400	3.194	Y
All	DC-10	2018	5	monit	before	-0.2495	-0.9063	3.192	Y
All	DC-20	2017	10	monit	before	0.0128	-0.6325	3.136	Y
All	DC-15	2018	8	monit	before	-1.8239	-1.1884	-3.088	N
All	DC-15	2017	10	monit	before	-0.4023	-1.0216	3.009	Y

Based on examination of the residuals, the log-10 transformed data were selected for analysis. No outliers were removed prior to analysis.

1.4 Before-After Control-Impact Linear Modeling

A models was fit to compare monitored sites with control sites.

Plot of Standardized Residuals and Fitted Values



Results of the ANOVA test on the fixed effects of the model:

	Sum Sq.	Mean Sq.	NumDF	DenDF	F value	*p*	*p adjusted*
class	0.0043	0.0043	1	14.32	0.1031	0.753	
period	1.0931	1.0931	1	391.42	26.3636	<0.001	
class:period	0.2458	0.2458	1	1337.42	5.9296	0.015	0.49

Summary of BACI contrasts for relative difference between changes from the *before* to *after* in monitored sites (DC-05, DC-10, DC-15, DC-20, 661-05, 661-10, 661-20, CC-05, CC-15, CC-20, CC-30, CC-40) and control sites, with p value adjusted for multiple comparisons:

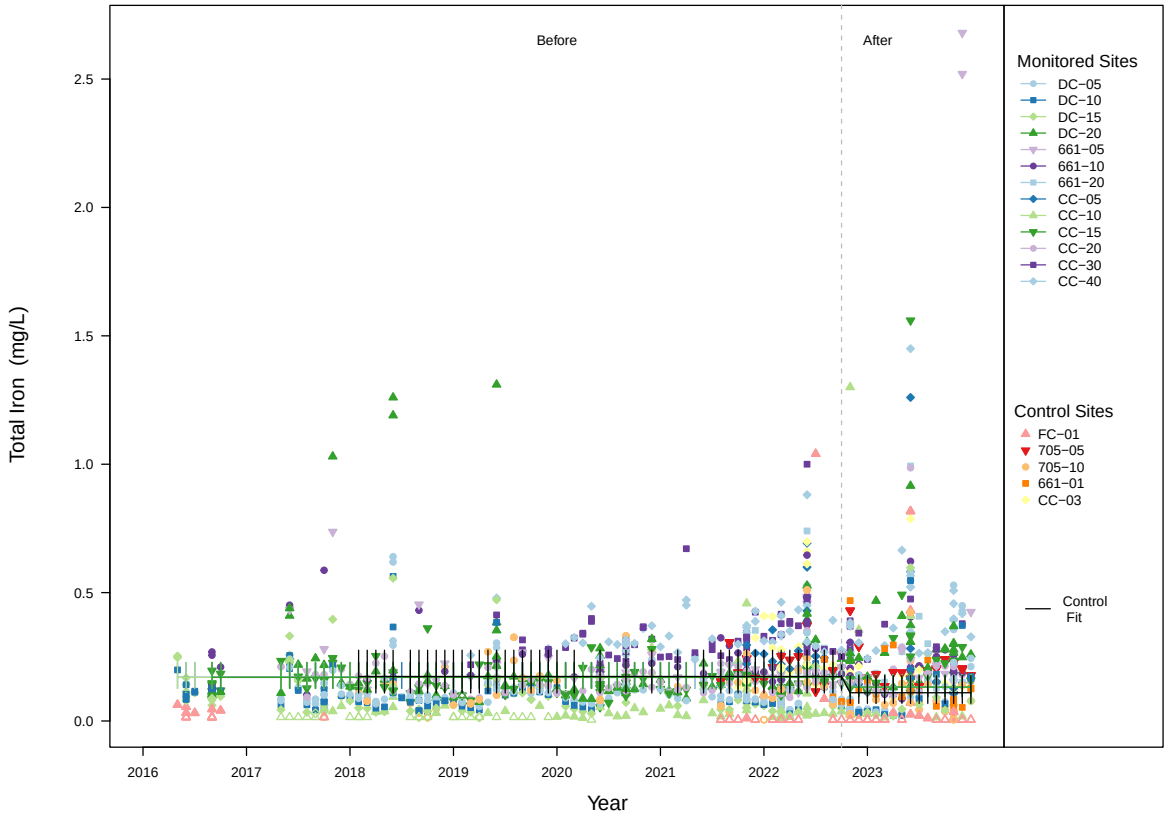
Monitored vs.	Estimate	Significance
control sites	0.0878	not significant

Conclusion:

The change in Total Iron concentrations at the monitored sites from *before* to *after* was not significantly (*adjusted p* = 0.49) different from the change at the control sites, according to the test on the BACI term (*class:period*).

1.5 Model Summary

The overall performance of the model is shown in the plot below. All the observations are plotted along with the model estimates. The model fitted values and 95% confidence intervals are indicated as lines and errors.



Note: Open symbols represent cases where the results were below the sample detection limit. Model fitted values are based on site class and period. Error bars indicate 95% confidence intervals. Modelled log-transformed values were converted back to natural scale.

Final Summary Table

Variable	Total Iron
Watershed	All
Waterbody	Stream
Streams Removed	FC-01, CC-10
Data Transformation	Log-10 transformed
Model Type	Linear Mixed Effects Regression
Is BACI significant	No

Appendix C.4 Statistical Comparison Tables for Fish Tissue Quality Data

Appendix C-4: Results of Pair-Wise Post Hoc Tests for Fish Tissue COPC Concentrations from 2021, 2022, and 2023 (Control Sites Only)

Parameter of Potential C	Contrast	Effects Ratio	SE	df	t.ratio	p.value
Aluminum	year_fac2021 / year_fac2022	0.542	0.11	159.83	-3.027	0.008
	year_fac2021 / year_fac2023	2.334	0.471	158.25	4.202	0
	year_fac2022 / year_fac2023	4.308	0.765	158.96	8.224	0
Cadmium	year_fac2021 / year_fac2022	1.153	0.091	157.20	1.806	0.171
	year_fac2021 / year_fac2023	1.435	0.112	157.08	4.609	0
	year_fac2022 / year_fac2023	1.245	0.086	157.14	3.172	0.005
Chromium	year_fac2021 / year_fac2022	1.313	0.184	159.80	1.94	0.131
	year_fac2021 / year_fac2023	1.642	0.23	158.23	3.542	0.002
	year_fac2022 / year_fac2023	1.25	0.154	158.94	1.811	0.169
Cobalt	year_fac2021 / year_fac2022	0.934	0.082	157.66	-0.78	0.716
	year_fac2021 / year_fac2023	1.208	0.106	157.26	2.161	0.081
	year_fac2022 / year_fac2023	1.294	0.1	157.47	3.342	0.003
Copper	year_fac2021 / year_fac2022	1.107	0.061	157.89	1.863	0.153
	year_fac2021 / year_fac2023	1.255	0.068	157.36	4.172	0
	year_fac2022 / year_fac2023	1.133	0.054	157.63	2.611	0.027
Iron	year_fac2021 / year_fac2022	0.757	0.08	158.44	-2.626	0.026
	year_fac2021 / year_fac2023	1.009	0.106	157.59	0.084	0.996
	year_fac2022 / year_fac2023	1.332	0.124	158.01	3.089	0.007
Lead	year_fac2021 / year_fac2022	0.757	0.119	162.87	-1.764	0.185
	year_fac2021 / year_fac2023	1.323	0.208	160.72	1.775	0.181
	year_fac2022 / year_fac2023	1.746	0.241	161.34	4.031	0
Manganese	year_fac2021 / year_fac2022	1.078	0.142	157.75	0.571	0.836
	year_fac2021 / year_fac2023	1.616	0.212	157.30	3.661	0.001
	year_fac2022 / year_fac2023	1.499	0.173	157.53	3.504	0.002
Molybdenum	year_fac2021 / year_fac2022	0.917	0.081	157.78	-0.98	0.591
	year_fac2021 / year_fac2023	1.535	0.135	157.31	4.89	0
	year_fac2022 / year_fac2023	1.674	0.129	157.55	6.667	0
Selenium	year_fac2021 / year_fac2022	0.858	0.038	157.24	-3.467	0.002
	year_fac2021 / year_fac2023	1.308	0.057	157.09	6.113	0
	year_fac2022 / year_fac2023	1.524	0.059	157.17	10.892	0
Thallium	year_fac2021 / year_fac2022	1.114	0.108	157.89	1.109	0.51
	year_fac2021 / year_fac2023	2.177	0.211	157.35	8.04	0
	year_fac2022 / year_fac2023	1.954	0.167	157.62	7.861	0
Zinc	year_fac2021 / year_fac2022	0.987	0.058	157.74	-0.218	0.974
	year_fac2021 / year_fac2023	1.456	0.085	157.29	6.419	0
	year_fac2022 / year_fac2023	1.475	0.076	157.52	7.535	0

Notes:

Concentration data are in mg/kg wet weight.

SE = Standard error

df = Degrees of freedom

Appendix C.5 Statistical Comparison Tables for Small Mammal Tissue Quality Data

Appendix C-5: Statistical Comparison Using Linear Models of COPC Concentration in Small Mammal Tissues between Control and Impact Sites

COPC - Tissue Type	Term	Estimate	Standard Error	Statistics	*p* Value	Adjusted *p* value
Aluminum - Carcass	(Intercept)	3.7248	0.11	33.8555	0	
	speciesRBV	-0.2208	0.1439	-1.5341	0.1308	
	site.typeImpact	0.1695	0.1467	1.1552	0.2531	0.3999
Antimony - Carcass	(Intercept)	-4.8707	0.2596	-18.7637	0	
	speciesRBV	1.0769	0.3396	3.1715	0.0025	
	site.typeImpact	0.4194	0.3461	1.2117	0.2309	0.3892
Arsenic - Carcass	(Intercept)	-4.1458	0.1666	-24.8784	0	
	speciesRBV	0.6093	0.218	2.795	0.0072	
	site.typeImpact	0.6592	0.2222	2.9668	0.0045	**0.0273**
Arsenic - Liver	(Intercept)	-5.2271	0.1958	-26.6913	0	
	speciesRBV	1.1296	0.2562	4.4095	0	
	site.typeImpact	0.6496	0.2611	2.4876	0.016	**0.048**
Cadmium - Carcass	(Intercept)	-4.3513	0.153	-28.4315	0	
	speciesRBV	1.2269	0.2002	6.1285	0	
	site.typeImpact	0.7144	0.2041	3.5011	0.0009	**0.0172**
Cadmium - Liver	(Intercept)	-4.0192	0.2122	-18.9445	0	
	speciesRBV	1.404	0.2775	5.0591	0	
	site.typeImpact	0.6338	0.2829	2.2407	0.0292	0.0658
Chromium - Carcass	(Intercept)	-2.1525	0.088	-24.4645	0	
	speciesRBV	0.0334	0.1151	0.2902	0.7727	
	site.typeImpact	0.2353	0.1173	2.0059	0.0499	0.1055
Cobalt - Carcass	(Intercept)	-3.2038	0.0656	-48.857	0	
	speciesRBV	0.3505	0.0858	4.0857	0.0001	
	site.typeImpact	-0.0771	0.0874	-0.8813	0.3821	0.4954
Cobalt - Liver	(Intercept)	-2.8574	0.0869	-32.8697	0	
	speciesRBV	-0.5783	0.1137	-5.0852	0	
	site.typeImpact	-0.13	0.1159	-1.1219	0.2669	0.3999
Copper - Carcass	(Intercept)	1.4152	0.0637	22.2083	0	
	speciesRBV	-0.2056	0.0834	-2.4661	0.0169	
	site.typeImpact	0.0296	0.085	0.3478	0.7293	0.7787
Copper - Liver	(Intercept)	1.8829	0.0434	43.4247	0	
	speciesRBV	-0.2352	0.0567	-4.1467	0.0001	
	site.typeImpact	0.0179	0.0578	0.3103	0.7575	0.7788
Iron - Carcass	(Intercept)	4.4414	0.0388	114.406	0	
	speciesRBV	-0.0146	0.0508	-0.2871	0.7752	
	site.typeImpact	0.1438	0.0518	2.7787	0.0075	**0.0273**
Iron - Liver	(Intercept)	4.8934	0.0648	75.5596	0	
	speciesRBV	0.5176	0.0847	6.1104	0	
	site.typeImpact	-0.2116	0.0863	-2.4504	0.0175	**0.048**
Lead - Carcass	(Intercept)	-3.26	0.1191	-27.3798	0	
	speciesRBV	0.1229	0.1557	0.7893	0.4334	
	site.typeImpact	0.4384	0.1588	2.7618	0.0078	**0.0273**
Manganese - Carcass	(Intercept)	1.7424	0.0842	20.7034	0	
	speciesRBV	0.5498	0.1101	4.9938	0	
	site.typeImpact	0.1094	0.1122	0.9753	0.3338	0.4536

Appendix C-5: Statistical Comparison Using Linear Models of COPC Concentration in Small Mammal Tissues between Control and Impact Sites

COPC - Tissue Type	Term	Estimate	Standard Error	Statistics	*p* Value	Adjusted *p* value
Manganese - Liver	(Intercept)	1.1974	0.0819	14.6246	0	
	speciesRBV	0.1403	0.1071	1.3099	0.1958	
	site.typeImpact	0.0656	0.1092	0.6008	0.5505	0.605
Mercury - Carcass	(Intercept)	-4.9343	0.1127	-43.792	0	
	speciesRBV	2.5419	0.1474	17.2463	0	
	site.typeImpact	0.4349	0.1502	2.8947	0.0055	**0.0273**
Mercury - Liver	(Intercept)	-4.9553	0.1248	-39.705	0	
	speciesRBV	2.9982	0.1633	18.3654	0	
	site.typeImpact	0.162	0.1664	0.9738	0.3345	0.4536
Molybdenum - Carcass	(Intercept)	-1.4279	0.0655	-21.8071	0	
	speciesRBV	-0.3867	0.0857	-4.5148	0	
	site.typeImpact	-0.0611	0.0873	-0.7001	0.4868	0.5552
Molybdenum - Liver	(Intercept)	0.3506	0.0638	5.4983	0	
	speciesRBV	-0.3366	0.0834	-4.0358	0.0002	
	site.typeImpact	0.1138	0.085	1.3389	0.1862	0.3341
Nickel - Carcass	(Intercept)	-1.2894	0.1428	-9.0279	0	
	speciesRBV	0.1696	0.1868	0.9079	0.368	
	site.typeImpact	-0.2545	0.1904	-1.3365	0.187	0.3341
Selenium - Carcass	(Intercept)	-1.2658	0.0597	-21.1928	0	
	speciesRBV	-0.2303	0.0781	-2.947	0.0047	
	site.typeImpact	0.061	0.0796	0.7654	0.4474	0.5373
Selenium - Liver	(Intercept)	0.1706	0.0835	2.0422	0.046	
	speciesRBV	-0.6047	0.1093	-5.5338	0	
	site.typeImpact	-0.0843	0.1114	-0.7573	0.4522	0.5373
Thallium - Carcass	(Intercept)	-6.29	0.1522	-41.322	0	
	speciesRBV	0.5299	0.1991	2.6615	0.0102	
	site.typeImpact	0.647	0.203	3.1876	0.0024	**0.0232**
Thallium - Liver	(Intercept)	-6.749	0.2414	-27.9581	0	
	speciesRBV	0.361	0.3158	1.1432	0.258	
	site.typeImpact	0.7305	0.3219	2.2697	0.0272	0.0658
Zinc - Carcass	(Intercept)	3.4609	0.0226	153.1036	0	
	speciesRBV	-0.0827	0.0296	-2.7968	0.0071	
	site.typeImpact	0.0416	0.0301	1.381	0.173	0.3341
Zinc - Liver	(Intercept)	3.2766	0.0303	108.2797	0	
	speciesRBV	-0.0835	0.0396	-2.1107	0.0394	
	site.typeImpact	-0.0011	0.0403	-0.026	0.9793	0.9787

Note:

Concentrations of tissue metals for the analysis are in mg/kg wet weight.

Bold and grey shading indicates adjusted p values of less than 0.05.

APPENDIX D SUMMARY STATISTICS FOR COPC CONCENTRATIONS IN INDIVIDUAL PLANT SPECIES

Appendix D.1: Summary Statistics for Individual Plant Species - Willow

Contaminant of Potential Concern	Lowest Detection Limit (DL)	Summary Statistics of Parameter Concentrations in Willow, 2023, Study Area-wide (n = 40)								
		Samples with Concentration > DL	Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95% Percentile	Maximum
Physical Tests										
Moisture	0.50	40	55.0	63.7	4.43	0.700	65.0	63.3	69.7	75.3
Metals										
Aluminum	2.0	40	19.2	77.0	109	17.2	111	38.1	199	640
Antimony	0.010	4	0.00500	0.00610	-	-	0.00610	0.00500	0.0114	0.0240
Arsenic	0.020	37	0.0100	0.0620	0.052	0.0082	0.078	0.045	0.155	0.268
Beryllium	0.010	10	0.00500	0.01348	-	-	0.01348	0.00500	0.0534	0.118
Cadmium	0.0050	39	0.0025	1.614	2.43	0.384	2.37	0.9415	6.62	12.9
Chromium	0.050	18	0.025	0.093	0.152	0.0240	0.140	0.0250	0.358	0.85
Cobalt	0.020	40	0.0200	1.070	0.961	0.1519	1.368	0.749	2.36	5.42
Copper	0.10	40	0.420	2.85	1.07	0.169	3.18	2.89	4.16	5.40
Iron	3.0	40	38.1	126	166	26.2	178	75.4	342	1020
Lead	0.020	40	0.0260	0.0599	0.0374	0.00591	0.0715	0.0485	0.122	0.232
Lithium	0.50	1	0.250	0.258	-	-	0.258	0.250	0.250	0.580
Manganese	0.050	40	78.7	422	343	54.2	528	320	1011	1810
Mercury	0.0050	40	0.0085	0.0139	0.0025	0.0004	0.0147	0.0140	0.0178	0.0182
Molybdenum	0.020	40	0.0810	1.38	1.52	0.241	1.86	0.934	3.88	7.8
Nickel	0.20	32	0.100	1.149	1.24	0.196	1.534	0.745	2.69	6.68
Selenium	0.050	4	0.0250	0.0337	-	-	0.0337	0.0250	0.0809	0.198
Thallium	0.0020	17	0.00100	0.00272	0.00282	0.000446	0.00359	0.00100	0.00748	0.0144
Zinc	0.50	40	20.4	125.7	85.7	13.55	152.2	112.5	261	427

Notes:

All units in mg/kg wet weight, except for number of samples with concentration > DL

DL = Detection Limit; UCLM = Upper confidence limit of the mean; n = Number of samples

"-" = Standard deviation and standard error are not calculated for contaminants of potential concern where less than 70% of samples are detectable. The

Appendix D.1: Summary Statistics for Individual Plant Species - Willow

Contaminant of Potential Concern	Lowest Detection Limit (DL)	Summary Statistics of Parameter Concentrations in Willow, 2023, Mid-field (n = 15)								
		Samples with Concentration > DL	Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95% Percentile	Maximum
Physical Tests										
Moisture	0.50	15	56.6	64.8	4.52	1.168	67.0	64.5	70.9	74.2
Metals										
Aluminum	2.0	15	21.7	47.2	41	10.6	68	35.0	116	184
Antimony	0.010	2	0.00500	0.00627	-	-	0.00627	0.00500	0.0127	0.0190
Arsenic	0.020	13	0.0100	0.0532	0.044	0.0114	0.076	0.040	0.129	0.164
Beryllium	0.010	4	0.00500	0.01793	-	-	0.01793	0.00500	0.0774	0.118
Cadmium	0.0050	14	0.0025	0.955	0.96	0.249	1.44	0.9740	2.33	3.6
Chromium	0.050	4	0.025	0.035	-	-	0.035	0.0250	0.063	0.07
Cobalt	0.020	15	0.0200	1.263	1.377	0.3555	1.960	0.772	3.77	5.42
Copper	0.10	15	0.420	2.76	0.96	0.248	3.24	2.92	3.94	4.44
Iron	3.0	15	43.5	76	22	5.8	87	73.8	109	111
Lead	0.020	15	0.0270	0.0495	0.0225	0.00581	0.0608	0.0400	0.091	0.091
Lithium	0.50	0	0.250	0.250	-	-	0.250	0.250	0.250	0.250
Manganese	0.050	15	78.7	574	476	123.0	815	374	1264	1810
Mercury	0.0050	15	0.0109	0.0143	0.0021	0.0005	0.0153	0.0142	0.0175	0.0181
Molybdenum	0.020	15	0.0810	1.97	2.16	0.557	3.06	1.020	6.72	7.8
Nickel	0.20	10	0.100	0.787	0.85	0.220	1.217	0.540	2.58	2.67
Selenium	0.050	2	0.0250	0.0383	-	-	0.0383	0.0250	0.0958	0.198
Thallium	0.0020	9	0.00100	0.00351	0.00358	0.000923	0.00532	0.00240	0.00873	0.0144
Zinc	0.50	15	28.9	114.4	71.5	18.46	150.6	109.0	240	255

Notes:

All units in mg/kg wet weight, except for number of samples with concentration > DL

DL = Detection Limit; UCLM = Upper confidence limit of the mean; n = Number of samples

"-" = Standard deviation and standard error are not calculated for contaminants of potential concern where less than 70% of samples are detectable. The

Appendix D.1: Summary Statistics for Individual Plant Species - Willow

Contaminant of Potential Concern	Lowest Detection Limit (DL)	Summary Statistics of Parameter Concentrations in Willow, 2023, Road Transect (n = 5)								
		Samples with Concentration > DL	Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95% Percentile	Maximum
Physical Tests										
Moisture	0.50	5	56.5	61.6	4.16	1.863	65.3	61.8	66.3	66.8
Metals										
Aluminum	2.0	5	89.4	259.9	231	103.5	463	152.0	576	640
Antimony	0.010	2	0.00500	0.01000	0.0082	0.0037	0.01723	0.00500	0.0214	0.0240
Arsenic	0.020	5	0.0470	0.1148	0.092	0.0410	0.195	0.080	0.240	0.268
Beryllium	0.010	1	0.00500	0.00720	-	-	0.00720	0.00500	0.0138	0.016
Cadmium	0.0050	5	0.0943	1.012	0.64	0.286	1.57	0.9090	1.64	1.7
Chromium	0.050	5	0.120	0.378	0.288	0.1288	0.631	0.3570	0.759	0.85
Cobalt	0.020	5	0.3730	0.536	0.113	0.0504	0.634	0.532	0.65	0.66
Copper	0.10	5	2.590	2.97	0.43	0.190	3.35	2.81	3.45	3.46
Iron	3.0	5	142.0	403	367	164.1	724	249.0	906	1020
Lead	0.020	5	0.0530	0.1080	0.0743	0.03323	0.1731	0.0710	0.210	0.232
Lithium	0.50	1	0.250	0.316	-	-	0.316	0.250	0.514	0.580
Manganese	0.050	5	102.0	197	89	39.8	275	164	305	316
Mercury	0.0050	5	0.0106	0.0135	0.0028	0.0013	0.0160	0.0132	0.0169	0.0173
Molybdenum	0.020	5	0.3940	0.71	0.43	0.194	1.09	0.492	1.30	1.4
Nickel	0.20	5	0.380	1.046	0.61	0.272	1.579	0.840	1.84	1.98
Selenium	0.050	1	0.0250	0.0358	-	-	0.0358	0.0250	0.0682	0.079
Thallium	0.0020	2	0.00100	0.00228	0.00195	0.000871	0.00399	0.00100	0.00492	0.0054
Zinc	0.50	5	43.6	113.5	49.1	21.95	156.5	116.0	169	182

Notes:

All units in mg/kg wet weight, except for number of samples with concentration > DL

DL = Detection Limit; UCLM = Upper confidence limit of the mean; n = Number of samples

"-" = Standard deviation and standard error are not calculated for contaminants of potential concern where less than 70% of samples are detectable. The

Appendix D.2: Summary Statistics for Individual Plant Species - Sedge

Contaminant of Potential Concern	Lowest Detection Limit (DL)	Summary Statistics of Parameter Concentrations in Sedge, 2023, Study Area-wide (n = 26)								
		Samples with Concentration > DL	Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95% Percentile	Maximum
Physical Tests										
Moisture	0.50	26	35.0	60.6	8.40	1.647	63.8	61.5	69.6	73.5
Metals										
Aluminum	2.0	26	14.0	82.8	167	32.7	147	28.1	256	844
Antimony	0.010	2	0.00500	0.00612	-	-	0.00612	0.00500	0.0095	0.0280
Arsenic	0.020	24	0.0100	0.1270	0.159	0.0312	0.188	0.043	0.477	0.606
Beryllium	0.010	1	0.00500	0.00569	-	-	0.00569	0.00500	0.0050	0.023
Cadmium	0.0050	25	0.0025	0.027	0.02	0.004	0.04	0.0256	0.05	0.1
Chromium	0.050	20	0.025	0.132	0.217	0.0426	0.215	0.0715	0.331	1.13
Cobalt	0.020	25	0.0100	0.092	0.113	0.0222	0.135	0.057	0.28	0.55
Copper	0.10	26	0.260	2.56	1.57	0.308	3.16	1.97	4.99	6.30
Iron	3.0	26	40.3	169	265	52.0	270	82.6	474	1360
Lead	0.020	26	0.0220	0.0773	0.0830	0.01627	0.1092	0.0510	0.234	0.396
Lithium	0.50	1	0.250	0.277	-	-	0.277	0.250	0.250	0.940
Manganese	0.050	26	149.0	758	574	112.6	979	563	1530	3030
Mercury	0.0050	26	0.0066	0.0103	0.0036	0.0007	0.0116	0.0087	0.0166	0.0222
Molybdenum	0.020	26	0.2550	3.50	4.22	0.828	5.12	1.600	13.05	16.6
Nickel	0.20	15	0.100	0.272	0.23	0.045	0.360	0.245	0.57	1.13
Selenium	0.050	0	0.0250	0.0250	-	-	0.0250	0.0250	0.0250	0.025
Thallium	0.0020	11	0.00100	0.00265	0.00264	0.000517	0.00366	0.00100	0.00870	0.0098
Zinc	0.50	26	11.7	28.2	13.1	2.57	33.3	25.6	52	68

Notes:

All units in mg/kg wet weight, except for number of samples with concentration > DL

DL = Detection Limit; UCLM = Upper confidence limit of the mean; n = Number of samples

"-" = Standard deviation and standard error are not calculated for contaminants of potential concern where less than 70% of samples are detectable. The

Appendix D.2: Summary Statistics for Individual Plant Species - Sedge

Contaminant of Potential Concern	Lowest Detection Limit (DL)	Summary Statistics of Parameter Concentrations in Sedge, 2023, Near-field (n = 5)								
		Samples with Concentration > DL	Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95% Percentile	Maximum
Physical Tests										
Moisture	0.50	5	59.6	66.5	4.07	1.820	70.0	67.3	69.6	69.6
Metals										
Aluminum	2.0	5	19.0	192.5	364	162.9	512	28.4	684	844
Antimony	0.010	1	0.00500	0.00960	-	-	0.00960	0.00500	0.0234	0.0280
Arsenic	0.020	5	0.0380	0.2272	0.206	0.0923	0.408	0.169	0.485	0.517
Beryllium	0.010	1	0.00500	0.00860	-	-	0.00860	0.00500	0.0194	0.023
Cadmium	0.0050	5	0.0054	0.017	0.01	0.006	0.03	0.0124	0.03	0.0
Chromium	0.050	5	0.051	0.277	0.477	0.2132	0.695	0.0700	0.920	1.13
Cobalt	0.020	5	0.0220	0.213	0.219	0.0978	0.405	0.114	0.50	0.55
Copper	0.10	5	0.810	2.53	1.53	0.682	3.87	1.95	4.35	4.51
Iron	3.0	5	70.6	358	562	251.3	850	92.4	1124	1360
Lead	0.020	5	0.0350	0.1154	0.1570	0.07022	0.2530	0.0500	0.327	0.396
Lithium	0.50	1	0.250	0.388	-	-	0.388	0.250	0.802	0.940
Manganese	0.050	5	274.0	461	118	52.8	565	506	557	559
Mercury	0.0050	5	0.0066	0.0096	0.0028	0.0013	0.0120	0.0086	0.0130	0.0133
Molybdenum	0.020	5	0.2550	1.59	1.43	0.641	2.84	1.290	3.51	4.0
Nickel	0.20	3	0.100	0.390	0.43	0.191	0.764	0.290	0.97	1.13
Selenium	0.050	0	0.0250	0.0250	-	-	0.0250	0.0250	0.0250	0.025
Thallium	0.0020	3	0.00100	0.00464	0.00373	0.001667	0.00791	0.00440	0.00876	0.0090
Zinc	0.50	5	11.8	22.1	6.5	2.92	27.8	23.6	29	30

Notes:

All units in mg/kg wet weight, except for number of samples with concentration > DL

DL = Detection Limit; UCLM = Upper confidence limit of the mean; n = Number of samples

"-" = Standard deviation and standard error are not calculated for contaminants of potential concern where less than 70% of samples are detectable. The

Appendix D.2: Summary Statistics for Individual Plant Species - Sedge

Contaminant of Potential Concern	Lowest Detection Limit (DL)	Summary Statistics of Parameter Concentrations in Sedge, 2023, Mid-field (n = 8)								
		Samples with Concentration > DL	Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95% Percentile	Maximum
Physical Tests										
Moisture	0.50	8	52.5	61.3	5.92	2.092	65.4	61.2	67.8	68.3
Metals										
Aluminum	2.0	8	16.0	25.4	12	4.1	33	20.6	45	52
Antimony	0.010	0	0.00500	0.00500	-	-	0.00500	0.00500	0.0050	0.0050
Arsenic	0.020	7	0.0100	0.1536	0.211	0.0746	0.300	0.067	0.511	0.606
Beryllium	0.010	0	0.00500	0.00500	-	-	0.00500	0.00500	0.0050	0.005
Cadmium	0.0050	8	0.0094	0.028	0.02	0.006	0.04	0.0220	0.05	0.1
Chromium	0.050	4	0.025	0.065	0.053	0.0189	0.102	0.0420	0.151	0.17
Cobalt	0.020	8	0.0250	0.059	0.033	0.0115	0.082	0.048	0.11	0.11
Copper	0.10	8	0.840	2.81	1.91	0.676	4.13	1.91	5.89	6.30
Iron	3.0	8	58.7	89	30	10.8	110	80.1	124	124
Lead	0.020	8	0.0220	0.0665	0.0787	0.02783	0.1210	0.0385	0.192	0.258
Lithium	0.50	0	0.250	0.250	-	-	0.250	0.250	0.250	0.250
Manganese	0.050	8	549.0	837	313	110.8	1054	813	1302	1470
Mercury	0.0050	8	0.0071	0.0103	0.0050	0.0018	0.0138	0.0084	0.0183	0.0222
Molybdenum	0.020	8	0.7970	2.53	1.98	0.699	3.90	2.145	5.53	6.6
Nickel	0.20	3	0.100	0.176	0.11	0.039	0.253	0.100	0.35	0.38
Selenium	0.050	0	0.0250	0.0250	-	-	0.0250	0.0250	0.0250	0.025
Thallium	0.0020	4	0.00100	0.00333	0.00314	0.001111	0.00550	0.00205	0.00830	0.0098
Zinc	0.50	8	11.7	31.9	18.2	6.44	44.5	32.1	58	68

Notes:

All units in mg/kg wet weight, except for number of samples with concentration > DL

DL = Detection Limit; UCLM = Upper confidence limit of the mean; n = Number of samples

"-" = Standard deviation and standard error are not calculated for contaminants of potential concern where less than 70% of samples are detectable. The

Appendix D.2: Summary Statistics for Individual Plant Species - Sedge

Contaminant of Potential Concern	Lowest Detection Limit (DL)	Summary Statistics of Parameter Concentrations in Sedge, 2023, Control (n = 8)								
		Samples with Concentration > DL	Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95% Percentile	Maximum
Physical Tests										
Moisture	0.50	8	35.0	57.1	11.26	3.981	64.9	59.6	69.7	73.5
Metals										
Aluminum	2.0	8	14.0	28.6	18	6.2	41	17.7	54	58
Antimony	0.010	0	0.00500	0.00500	-	-	0.00500	0.00500	0.0050	0.0050
Arsenic	0.020	7	0.0100	0.0484	0.055	0.0196	0.087	0.030	0.134	0.183
Beryllium	0.010	0	0.00500	0.00500	-	-	0.00500	0.00500	0.0050	0.005
Cadmium	0.0050	7	0.0025	0.025	0.02	0.006	0.04	0.0253	0.04	0.0
Chromium	0.050	6	0.025	0.068	0.033	0.0116	0.091	0.0675	0.108	0.11
Cobalt	0.020	7	0.0100	0.041	0.019	0.0067	0.054	0.043	0.06	0.06
Copper	0.10	8	0.260	2.54	1.83	0.648	3.81	3.22	4.40	4.58
Iron	3.0	8	40.3	67	16	5.7	78	65.9	88	93
Lead	0.020	8	0.0220	0.0581	0.0451	0.01594	0.0894	0.0470	0.131	0.161
Lithium	0.50	0	0.250	0.250	-	-	0.250	0.250	0.250	0.250
Manganese	0.050	8	149.0	999	933	329.8	1646	755	2512	3030
Mercury	0.0050	8	0.0071	0.0095	0.0029	0.0010	0.0115	0.0082	0.0138	0.0151
Molybdenum	0.020	8	0.4290	7.05	6.05	2.139	11.24	6.440	15.90	16.6
Nickel	0.20	4	0.100	0.238	0.18	0.062	0.359	0.170	0.51	0.52
Selenium	0.050	0	0.0250	0.0250	-	-	0.0250	0.0250	0.0250	0.025
Thallium	0.0020	1	0.00100	0.00113	-	-	0.00113	0.00100	0.00165	0.0020
Zinc	0.50	8	14.1	25.3	8.8	3.13	31.4	25.6	38	41

Notes:

All units in mg/kg wet weight, except for number of samples with concentration > DL

DL = Detection Limit; UCLM = Upper confidence limit of the mean; n = Number of samples

"-" = Standard deviation and standard error are not calculated for contaminants of potential concern where less than 70% of samples are detectable. The

Appendix D.2: Summary Statistics for Individual Plant Species - Sedge

Contaminant of Potential Concern	Lowest Detection Limit (DL)	Summary Statistics of Parameter Concentrations in Sedge, 2023, Road Transect (n = 5)								
		Samples with Concentration > DL	Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95% Percentile	Maximum
Physical Tests										
Moisture	0.50	5	50.2	59.2	8.40	3.758	66.6	60.5	68.6	69.6
Metals										
Aluminum	2.0	5	72.2	151.6	83	37.2	224	128.0	263	292
Antimony	0.010	1	0.00500	0.00620	-	-	0.00620	0.00500	0.0098	0.0110
Arsenic	0.020	5	0.0350	0.1098	0.076	0.0338	0.176	0.108	0.201	0.214
Beryllium	0.010	0	0.00500	0.00500	-	-	0.00500	0.00500	0.0050	0.005
Cadmium	0.0050	5	0.0102	0.042	0.03	0.013	0.07	0.0383	0.08	0.1
Chromium	0.050	5	0.090	0.196	0.110	0.0492	0.292	0.1880	0.340	0.38
Cobalt	0.020	5	0.0310	0.104	0.061	0.0271	0.157	0.117	0.17	0.19
Copper	0.10	5	1.430	2.21	0.74	0.329	2.85	1.90	3.10	3.19
Iron	3.0	5	76.3	269	173	77.5	421	276.0	484	524
Lead	0.020	5	0.0610	0.0872	0.0326	0.01460	0.1158	0.0720	0.132	0.143
Lithium	0.50	0	0.250	0.250	-	-	0.250	0.250	0.250	0.250
Manganese	0.050	5	298.0	544	232	104.0	748	444	798	802
Mercury	0.0050	5	0.0083	0.0120	0.0033	0.0015	0.0148	0.0119	0.0161	0.0171
Molybdenum	0.020	5	0.7700	1.27	0.78	0.348	1.96	0.889	2.35	2.6
Nickel	0.20	5	0.220	0.362	0.14	0.063	0.485	0.350	0.55	0.59
Selenium	0.050	0	0.0250	0.0250	-	-	0.0250	0.0250	0.0250	0.025
Thallium	0.0020	3	0.00100	0.00202	0.00106	0.000475	0.00295	0.00210	0.00330	0.0035
Zinc	0.50	5	21.5	33.3	13.7	6.14	45.3	31.8	52	56

Notes:

All units in mg/kg wet weight, except for number of samples with concentration > DL

DL = Detection Limit; UCLM = Upper confidence limit of the mean; n = Number of samples

"-" = Standard deviation and standard error are not calculated for contaminants of potential concern where less than 70% of samples are detectable. The

Appendix D.3: Summary Statistics for Individual Plant Species - Labrador Tea

Contaminant of Potential Concern	Lowest Detection Limit (DL)	Summary Statistics of Parameter Concentrations in Labrador Tea, 2023, Study Area-wide (n = 14)								
		Samples with Concentration > DL	Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95% Percentile	Maximum
Physical Tests										
Moisture	0.50	14	47.9	52.7	3.43	0.918	54.5	52.5	57.8	61.0
Metals										
Aluminum	2.0	14	15.8	44.4	22	5.8	56	36.6	84	98
Antimony	0.010	0	0.00500	0.00500	-	-	0.00500	0.00500	0.0050	0.0050
Arsenic	0.020	7	0.0100	0.0292	0.030	0.0079	0.045	0.016	0.089	0.105
Beryllium	0.010	0	0.00500	0.00500	-	-	0.00500	0.00500	0.0050	0.005
Cadmium	0.0050	8	0.0025	0.008	0.01	0.003	0.01	0.0061	0.02	0.0
Chromium	0.050	8	0.025	0.071	0.057	0.0152	0.101	0.0565	0.164	0.20
Cobalt	0.020	9	0.0100	0.027	0.019	0.0051	0.037	0.020	0.06	0.07
Copper	0.10	14	2.610	3.16	0.56	0.150	3.45	3.04	4.01	4.63
Iron	3.0	14	35.0	59	21	5.6	70	52.0	101	102
Lead	0.020	14	0.0240	0.0363	0.0155	0.00413	0.0444	0.0340	0.061	0.084
Lithium	0.50	0	0.250	0.250	-	-	0.250	0.250	0.250	0.250
Manganese	0.050	14	466.0	1301	541	144.7	1584	1305	1965	2030
Mercury	0.0050	14	0.0078	0.0109	0.0024	0.0006	0.0122	0.0115	0.0142	0.0150
Molybdenum	0.020	14	0.0810	0.45	0.44	0.117	0.68	0.251	1.09	1.7
Nickel	0.20	6	0.100	0.221	0.18	0.047	0.313	0.100	0.57	0.63
Selenium	0.050	0	0.0250	0.0250	-	-	0.0250	0.0250	0.0250	0.025
Thallium	0.0020	0	0.00100	0.00100	-	-	0.00100	0.00100	0.00100	0.0010
Zinc	0.50	14	20.6	25.7	3.1	0.82	27.3	25.5	31	31

Notes:

All units in mg/kg wet weight, except for number of samples with concentration > DL

DL = Detection Limit; UCLM = Upper confidence limit of the mean; n = Number of samples

"-" = Standard deviation and standard error are not calculated for contaminants of potential concern where less than 70% of samples are detectable. The

Appendix D.3: Summary Statistics for Individual Plant Species - Labrador Tea

Contaminant of Potential Concern	Lowest Detection Limit (DL)	Summary Statistics of Parameter Concentrations in Labrador Tea, 2023, Mid-field (n = 6)								
		Samples with Concentration > DL	Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95% Percentile	Maximum
Physical Tests										
Moisture	0.50	6	49.1	54.0	4.07	1.660	57.2	53.9	59.5	61.0
Metals										
Aluminum	2.0	6	33.6	47.7	17	6.9	61	39.4	73	77
Antimony	0.010	0	0.00500	0.00500	-	-	0.00500	0.00500	0.0050	0.0050
Arsenic	0.020	4	0.0100	0.0427	0.040	0.0165	0.075	0.025	0.099	0.105
Beryllium	0.010	0	0.00500	0.00500	-	-	0.00500	0.00500	0.0050	0.005
Cadmium	0.0050	3	0.0025	0.006	0.00	0.002	0.01	0.0044	0.01	0.0
Chromium	0.050	5	0.025	0.091	0.065	0.0265	0.142	0.0655	0.184	0.20
Cobalt	0.020	4	0.0100	0.029	0.020	0.0083	0.045	0.024	0.06	0.06
Copper	0.10	6	2.610	3.28	0.78	0.320	3.90	3.03	4.39	4.63
Iron	3.0	6	45.9	65	21	8.5	82	59.8	95	101
Lead	0.020	6	0.0240	0.0387	0.0228	0.00929	0.0569	0.0305	0.072	0.084
Lithium	0.50	0	0.250	0.250	-	-	0.250	0.250	0.250	0.250
Manganese	0.050	6	466.0	1421	548	223.7	1859	1480	1975	2030
Mercury	0.0050	6	0.0079	0.0104	0.0020	0.0008	0.0120	0.0112	0.0122	0.0123
Molybdenum	0.020	6	0.0810	0.42	0.60	0.247	0.91	0.187	1.31	1.7
Nickel	0.20	3	0.100	0.248	0.18	0.073	0.392	0.195	0.49	0.53
Selenium	0.050	0	0.0250	0.0250	-	-	0.0250	0.0250	0.0250	0.025
Thallium	0.0020	0	0.00100	0.00100	-	-	0.00100	0.00100	0.00100	0.0010
Zinc	0.50	6	22.0	26.5	3.4	1.39	29.2	25.5	31	31

Notes:

All units in mg/kg wet weight, except for number of samples with concentration > DL

DL = Detection Limit; UCLM = Upper confidence limit of the mean; n = Number of samples

"-" = Standard deviation and standard error are not calculated for contaminants of potential concern where less than 70% of samples are detectable. The

Appendix D.3: Summary Statistics for Individual Plant Species - Labrador Tea

Contaminant of Potential Concern	Lowest Detection Limit (DL)	Summary Statistics of Parameter Concentrations in Labrador Tea, 2023, Control (n = 6)								
		Samples with Concentration > DL	Minimum	Mean	Standard Deviation	Standard Error	95% UCLM	Median	95% Percentile	Maximum
Physical Tests										
Moisture	0.50	6	47.9	50.8	2.31	0.944	52.6	51.0	53.6	54.1
Metals										
Aluminum	2.0	6	15.8	33.8	13	5.4	44	32.9	51	57
Antimony	0.010	0	0.00500	0.00500	-	-	0.00500	0.00500	0.0050	0.0050
Arsenic	0.020	1	0.0100	0.0130	-	-	0.013	0.010	0.024	0.028
Beryllium	0.010	0	0.00500	0.00500	-	-	0.00500	0.00500	0.0050	0.005
Cadmium	0.0050	4	0.0025	0.011	0.02	0.006	0.02	0.0064	0.03	0.0
Chromium	0.050	1	0.025	0.041	-	-	0.041	0.0250	0.096	0.12
Cobalt	0.020	4	0.0100	0.025	0.021	0.0085	0.042	0.020	0.06	0.07
Copper	0.10	6	2.730	3.19	0.33	0.136	3.46	3.14	3.60	3.62
Iron	3.0	6	35.0	45	7	2.8	50	44.6	53	55
Lead	0.020	6	0.0250	0.0312	0.0054	0.00221	0.0355	0.0315	0.038	0.039
Lithium	0.50	0	0.250	0.250	-	-	0.250	0.250	0.250	0.250
Manganese	0.050	6	606.0	1154	566	230.9	1606	876	1900	1930
Mercury	0.0050	6	0.0078	0.0103	0.0024	0.0010	0.0122	0.0100	0.0133	0.0136
Molybdenum	0.020	6	0.0860	0.49	0.33	0.134	0.75	0.575	0.79	0.8
Nickel	0.20	2	0.100	0.145	0.07	0.029	0.201	0.100	0.24	0.25
Selenium	0.050	0	0.0250	0.0250	-	-	0.0250	0.0250	0.0250	0.025
Thallium	0.0020	0	0.00100	0.00100	-	-	0.00100	0.00100	0.00100	0.0010
Zinc	0.50	6	20.6	24.5	2.4	1.00	26.4	25.0	27	28

Notes:

All units in mg/kg wet weight, except for number of samples with concentration > DL

DL = Detection Limit; UCLM = Upper confidence limit of the mean; n = Number of samples

"-" = Standard deviation and standard error are not calculated for contaminants of potential concern where less than 70% of samples are detectable. The

APPENDIX E FIGURES SHOWING RESULTS OF MONITORING

Appendix E.1 Box Plots of COPC Concentrations in Labrador Tea Samples in the Study Area and Subareas for Baseline (2021/2022) and Construction (2023)

Appendix E.2 Concentration of Aluminum, Cadmium, Cobalt, Copper, Iron, Manganese, Mercury, Molybdenum, and Zinc in Sedge Samples in the Study Area and Subareas for Baseline (2021/2022) and Construction (2023)

Appendix E.3 Box Plots of COPC Concentrations in Surface Water

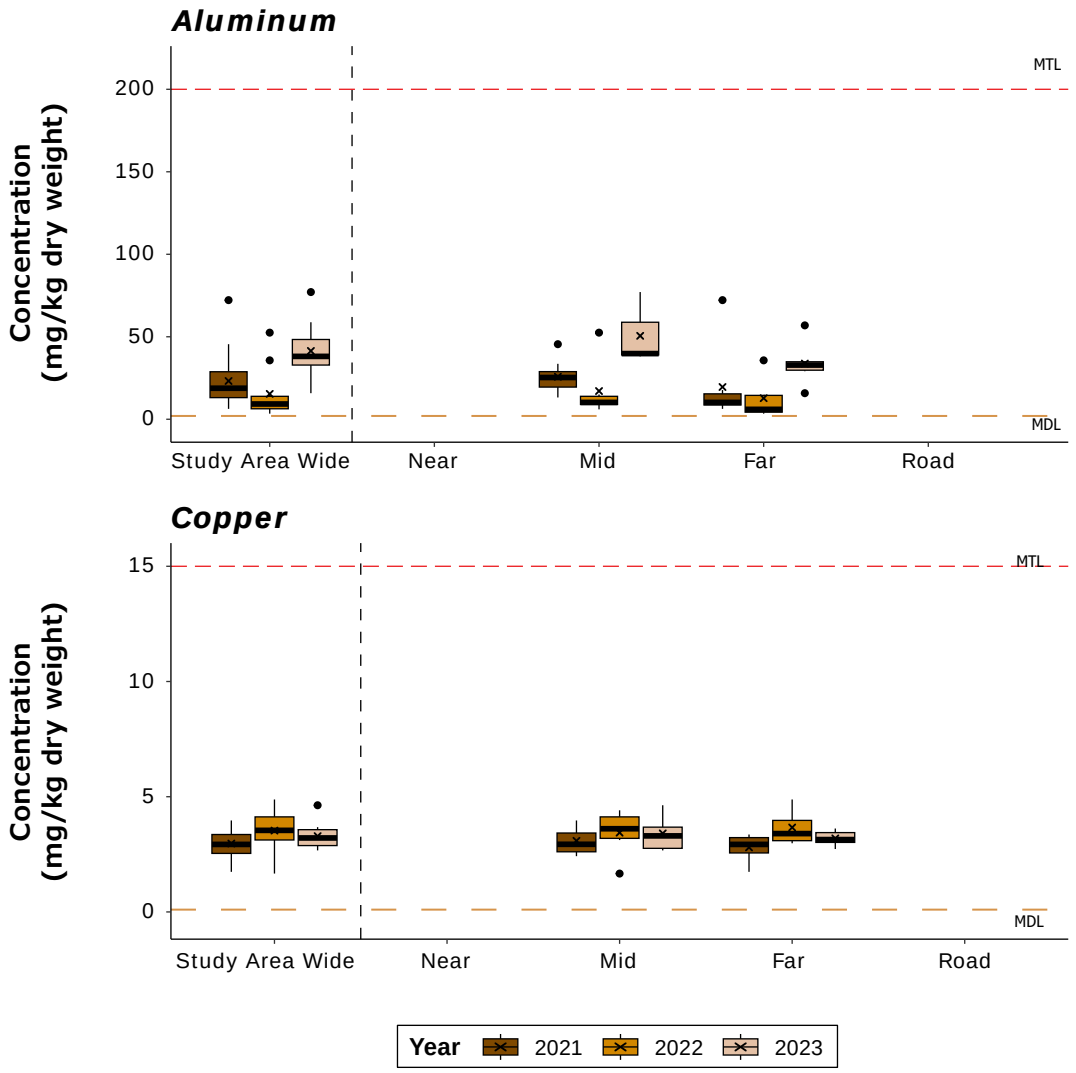
Appendix E.4 Time Series Graphs for Total Copper, Iron, and Lead Concentrations in Surface Water, 2016-2023

Appendix E.5 Plots of COPC Concentrations in Fish Tissues

Appendix E.6 Box Plots of COPC Concentrations in Small Mammal Carcass and Liver Tissues

Appendix E.1 Box Plots of COPC Concentrations in Labrador Tea Samples in the Study Area and Subareas for Baseline (2021/2022) and Construction (2023)

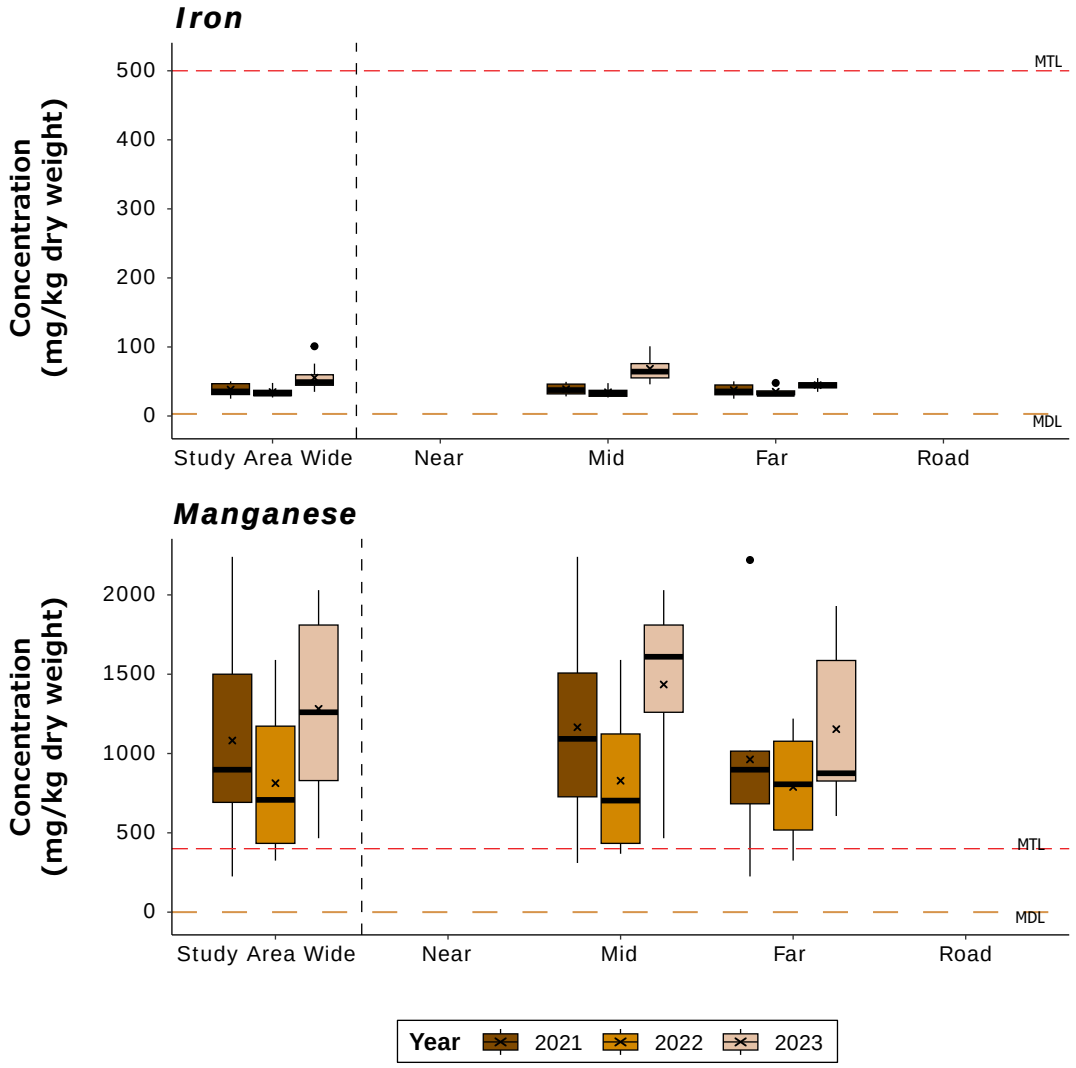
APPENDIX E-1 CONCENTRATION OF ALUMINUM AND COPPER, IN LABRADOR TEA SAMPLES IN THE STUDY AREA AND SUBAREAS FOR BASELINE (2021/2022) AND CONSTRUCTION (2023)



Notes: Concentrations below the detection limit were plotted as half the detection limit. Orange dashed line represents the Method Detection Limit (MDL). Red dashed lines represent soil guidelines. CCME Guideline = Canadian Council of Ministers of the Environment (CCME) Soil Quality Guidelines for the Protection of Environmental and Human Health, based on the lowest of the guidelines for agricultural or for residential / parkland land uses.
BC CSR Guideline = BC Contaminated Sites Regulation (BC CSR; B.C. Reg. 375/96) Schedule 3.1 (Part 1, Part 2, or Part 3) soil quality standards for protections of human and ecological health based on the lowest (most conservative) standard for reverted wildland or agricultural land uses based on intake of contaminated soil, toxicity to soil invertebrates and plants, or livestock ingesting soil and fodder.
The center line of each box in the plot denotes the median value (50th percentile), while the blue box contains the 25th to 75th percentiles of dataset. The "x" represents the mean. The black whiskers mark the 5th and 95th percentiles, and values beyond these upper and lower bounds are marked with dots and may be outliers.
Near-field and Road-transect subareas had insufficient (less than 70% detected) number of samples collected for statistical analysis in 2023 and were therefore not plotted.

Appendix E.2 Concentration of Aluminum, Cadmium, Cobalt, Copper, Iron, Manganese, Mercury, Molybdenum, and Zinc in Sedge Samples in the Study Area and Subareas for Baseline (2021/2022) and Construction (2023)

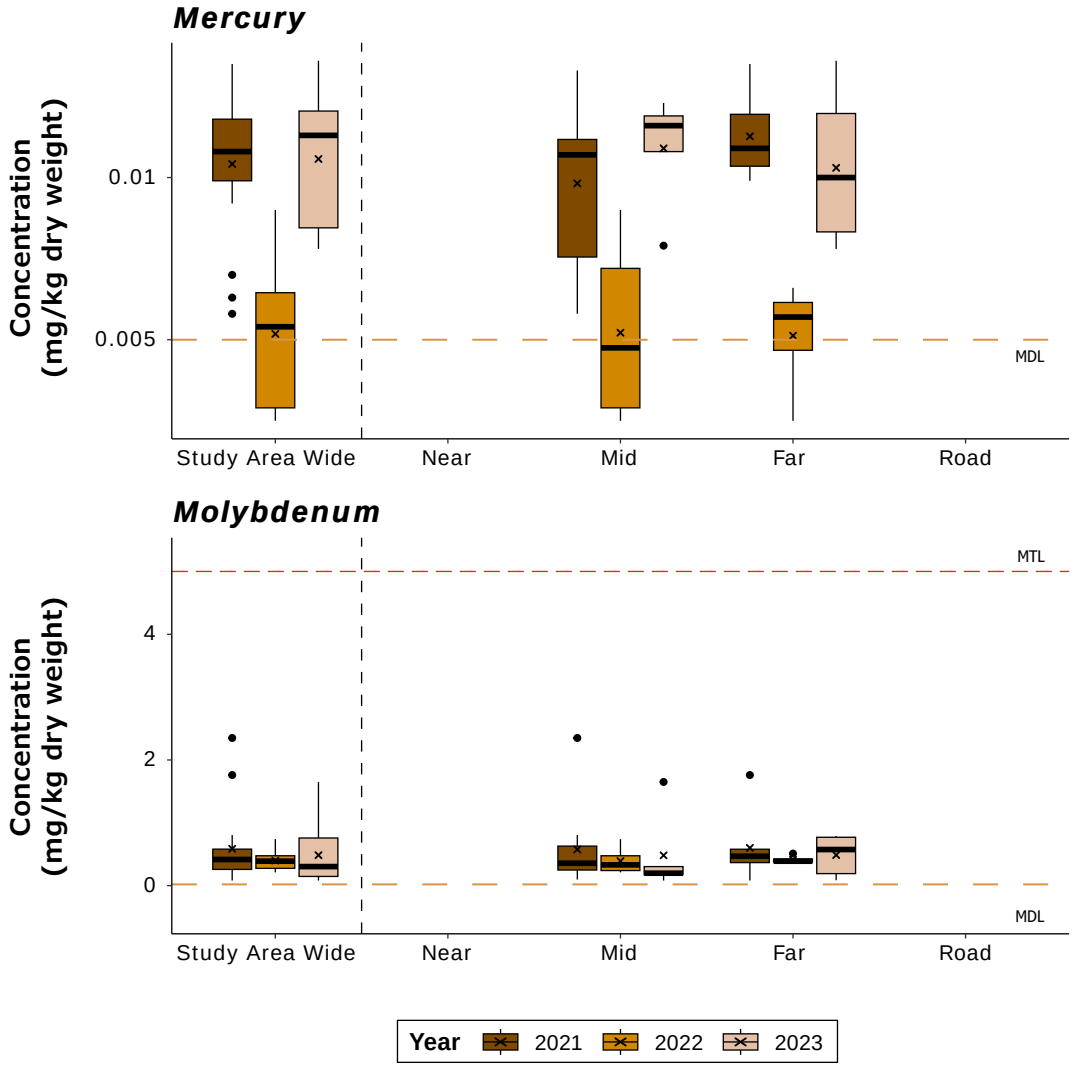
APPENDIX E-2 CONCENTRATION OF IRON AND MANGANESE IN LABRADOR TEA SAMPLES IN THE STUDY AREA AND SUBAREAS FOR BASELINE (2021/2022) AND CONSTRUCTION (2023)



Notes: Concentrations below the detection limit were plotted as half the detection limit. Orange dashed line represents the Method Detection Limit (MDL). Red dashed lines represent soil guidelines. CCME Guideline = Canadian Council of Ministers of the Environment (CCME) Soil Quality Guidelines for the Protection of Environmental and Human Health, based on the lowest of the guidelines for agricultural or for residential / parkland land uses.
BC CSR Guideline = BC Contaminated Sites Regulation (BC CSR; B.C. Reg. 375/96) Schedule 3.1 (Part 1, Part 2, or Part 3) soil quality standards for protections of human and ecological health based on the lowest (most conservative) standard for reverted wildland or agricultural land uses based on intake of contaminated soil, toxicity to soil invertebrates and plants, or livestock ingesting soil and fodder.
The center line of each box in the plot denotes the median value (50th percentile), while the blue box contains the 25th to 75th percentiles of dataset. The "x" represents the mean. The black whiskers mark the 5th and 95th percentiles, and values beyond these upper and lower bounds are marked with dots and may be outliers.
Near-field and Road-transect subareas had insufficient (less than 70% detected) number of samples collected for statistical analysis in 2023 and were therefore not plotted.

Appendix E.3 Box Plots of COPC Concentrations in Surface Water

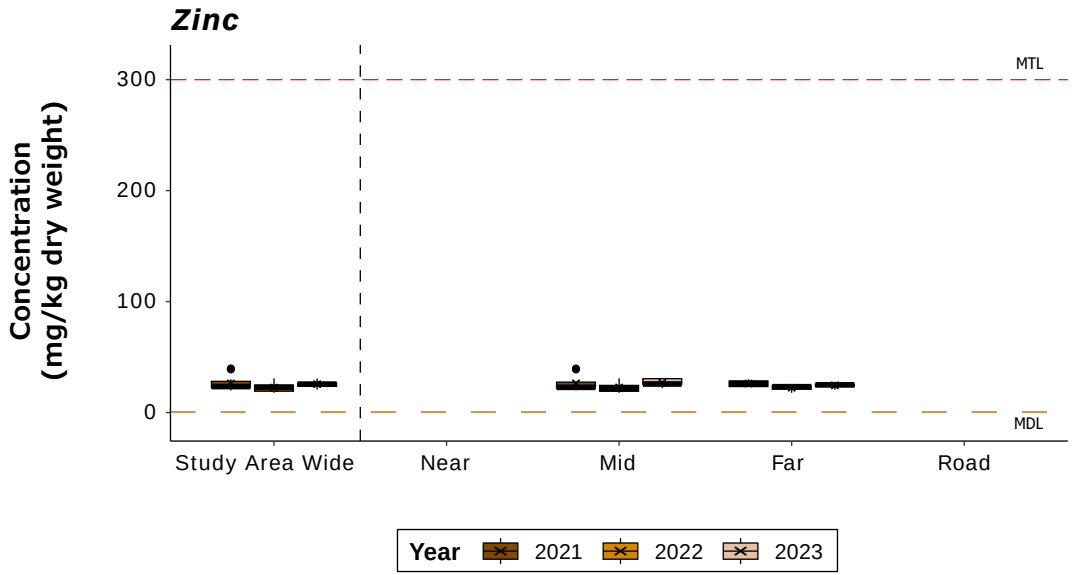
APPENDIX E-3 CONCENTRATION OF MERCURY AND MOLYBDENUM IN LABRADOR TEA SAMPLES IN THE STUDY AREA AND SUBAREAS FOR BASELINE (2021/2022) AND CONSTRUCTION (2023)



Notes: Concentrations below the detection limit were plotted as half the detection limit. Orange dashed line represents the Method Detection Limit (MDL). Red dashed lines represent soil guidelines. CCME Guideline = Canadian Council of Ministers of the Environment (CCME) Soil Quality Guidelines for the Protection of Environmental and Human Health, based on the lowest of the guidelines for agricultural or for residential / parkland land uses.
BC CSR Guideline = BC Contaminated Sites Regulation (BC CSR; B.C. Reg. 375/96) Schedule 3.1 (Part 1, Part 2, or Part 3) soil quality standards for protections of human and ecological health based on the lowest (most conservative) standard for reverted wildland or agricultural land uses based on intake of contaminated soil, toxicity to soil invertebrates and plants, or livestock ingesting soil and fodder.
The center line of each box in the plot denotes the median value (50th percentile), while the blue box contains the 25th to 75th percentiles of dataset. The "x" represents the mean. The black whiskers mark the 5th and 95th percentiles, and values beyond these upper and lower bounds are marked with dots and may be outliers.

Appendix E.4 Time Series Graphs for Total Copper, Iron, and Lead Concentrations in Surface Water, 2016-2023

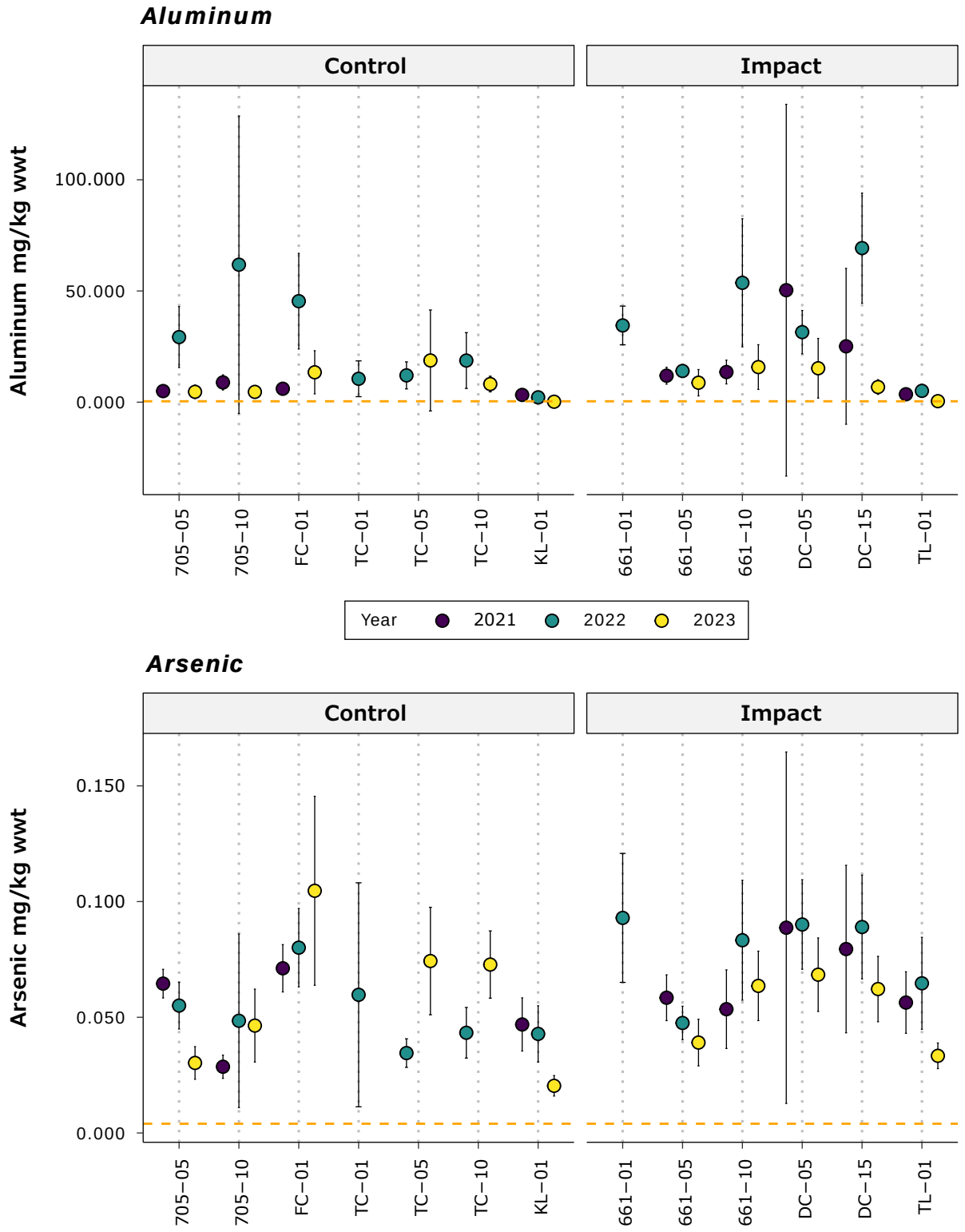
APPENDIX E-4 CONCENTRATION OF ZINC IN LABRADOR TEA SAMPLES IN THE STUDY AREA AND SUBAREAS FOR BASELINE (2021/2022) AND CONSTRUCTION (2023)



Notes: Concentrations below the detection limit were plotted as half the detection limit. Orange dashed line represents the Method Detection Limit (MDL). Red dashed lines represent soil guidelines. CCME Guideline = Canadian Council of Ministers of the Environment (CCME) Soil Quality Guidelines for the Protection of Environmental and Human Health, based on the lowest of the guidelines for agricultural or for residential / parkland land uses.
BC CSR Guideline = BC Contaminated Sites Regulation (BC CSR; B.C. Reg. 375/96) Schedule 3.1 (Part 1, Part 2, or Part 3) soil quality standards for protections of human and ecological health based on the lowest (most conservative) standard for reverted wildland or agricultural land uses based on intake of contaminated soil, toxicity to soil invertebrates and plants, or livestock ingesting soil and fodder.
The center line of each box in the plot denotes the median value (50th percentile), while the blue box contains the 25th to 75th percentiles of dataset. The "x" represents the mean. The black whiskers mark the 5th and 95th percentiles, and values beyond these upper and lower bounds are marked with dots and may be outliers.
Near-field and Road-transect subareas had insufficient (less than 70% detected) number of samples collected for statistical analysis in 2023 and were therefore not plotted.

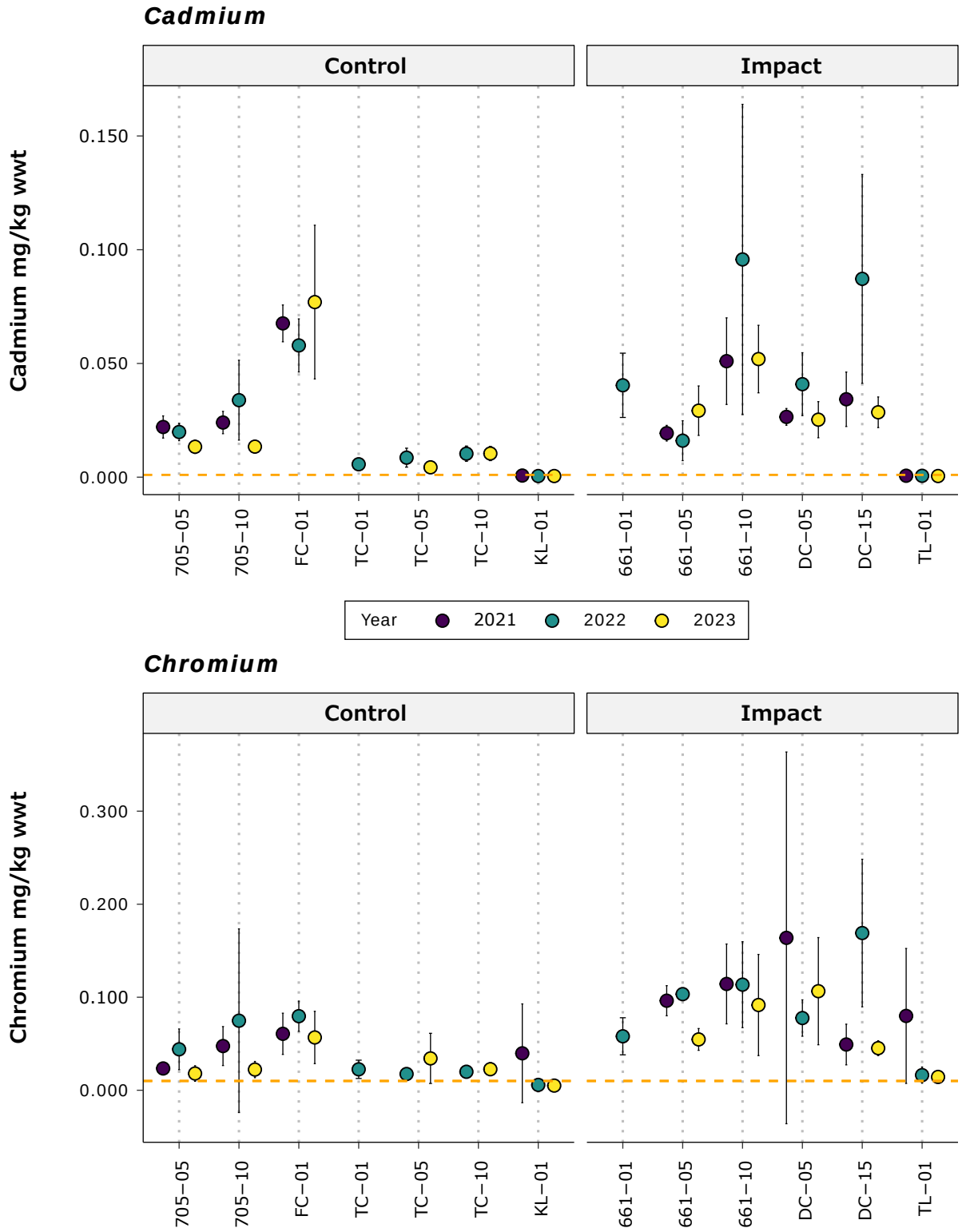
Appendix E.5 Plots of COPC Concentrations in Fish Tissues

FIGURE 1 CONCENTRATIONS OF CONTAMINANTS OF CONCERN IN WHOLE BODY (JUVENILE RAINBOW TROUT) AND MUSCLE (ADULT RAINBOW TROUT, KOKANEE, MOUNTAIN WHITEFISH) FISH TISSUES AT CONTROL AND IMPACT SITES FOR BASELINE (2021/2022) AND CONSTRUCTION (2023)



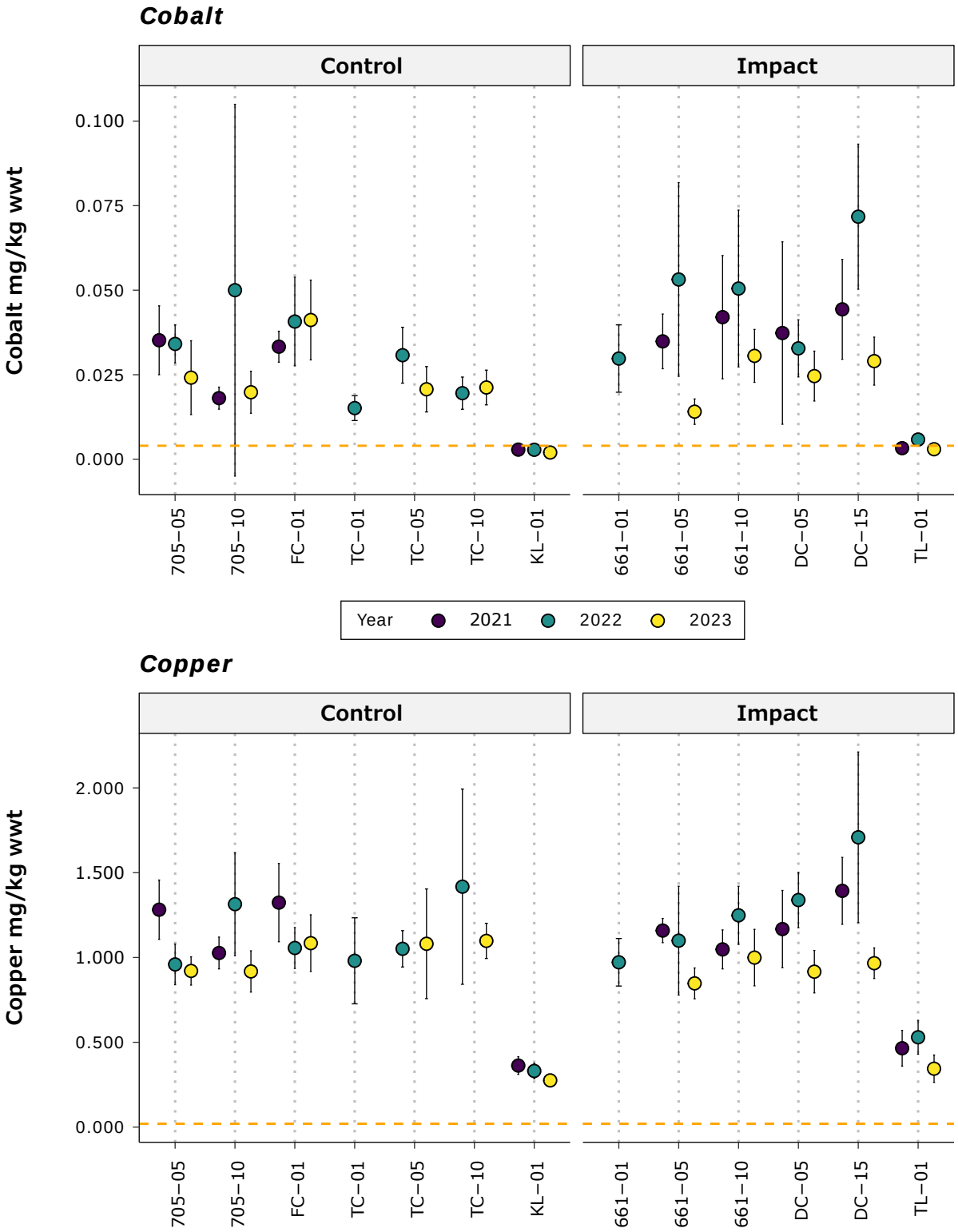
Notes: The colored circles represent the concentration means and the vertical lines represent the 95% confidence intervals. The orange broken line represents the detection limit. In 2023, site 661-05 also included samples obtained at site 661-04.

FIGURE 2 CONCENTRATIONS OF CONTAMINANTS OF CONCERN IN WHOLE BODY (JUVENILE RAINBOW TROUT) AND MUSCLE (ADULT RAINBOW TROUT, KOKANEE, MOUNTAIN WHITEFISH) FISH TISSUES AT CONTROL AND IMPACT SITES FOR BASELINE (2021/2022) AND CONSTRUCTION (2023)



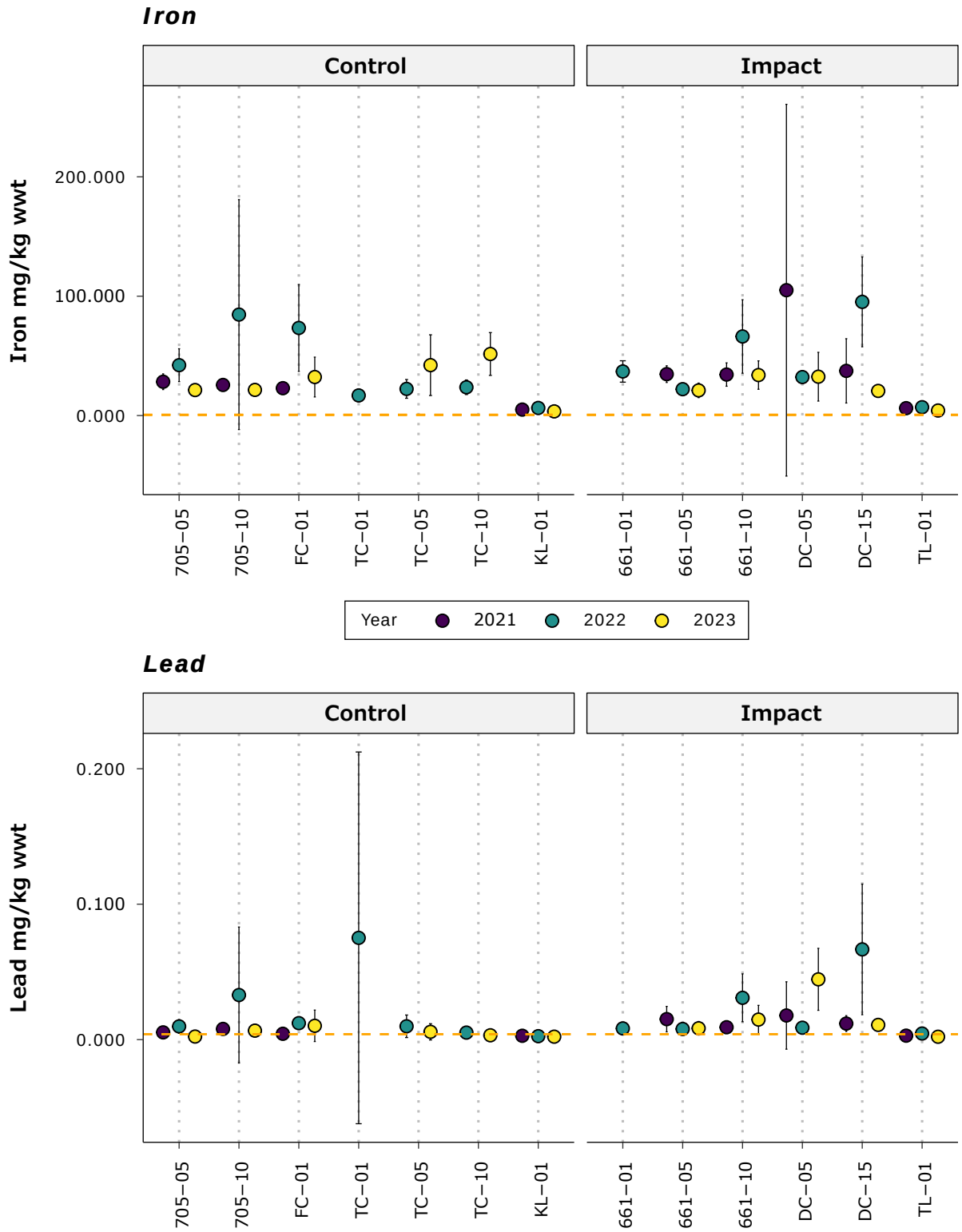
Notes: The colored circles represent the concentration means and the vertical lines represent the 95% confidence intervals. The orange broken line represents the detection limit. In 2023, site 661-05 also included samples obtained at site 661-04.

FIGURE 3 CONCENTRATIONS OF CONTAMINANTS OF CONCERN IN WHOLE BODY (JUVENILE RAINBOW TROUT) AND MUSCLE (ADULT RAINBOW TROUT, KOKANEE, MOUNTAIN WHITEFISH) FISH TISSUES AT CONTROL AND IMPACT SITES FOR BASELINE (2021/2022) AND CONSTRUCTION (2023)



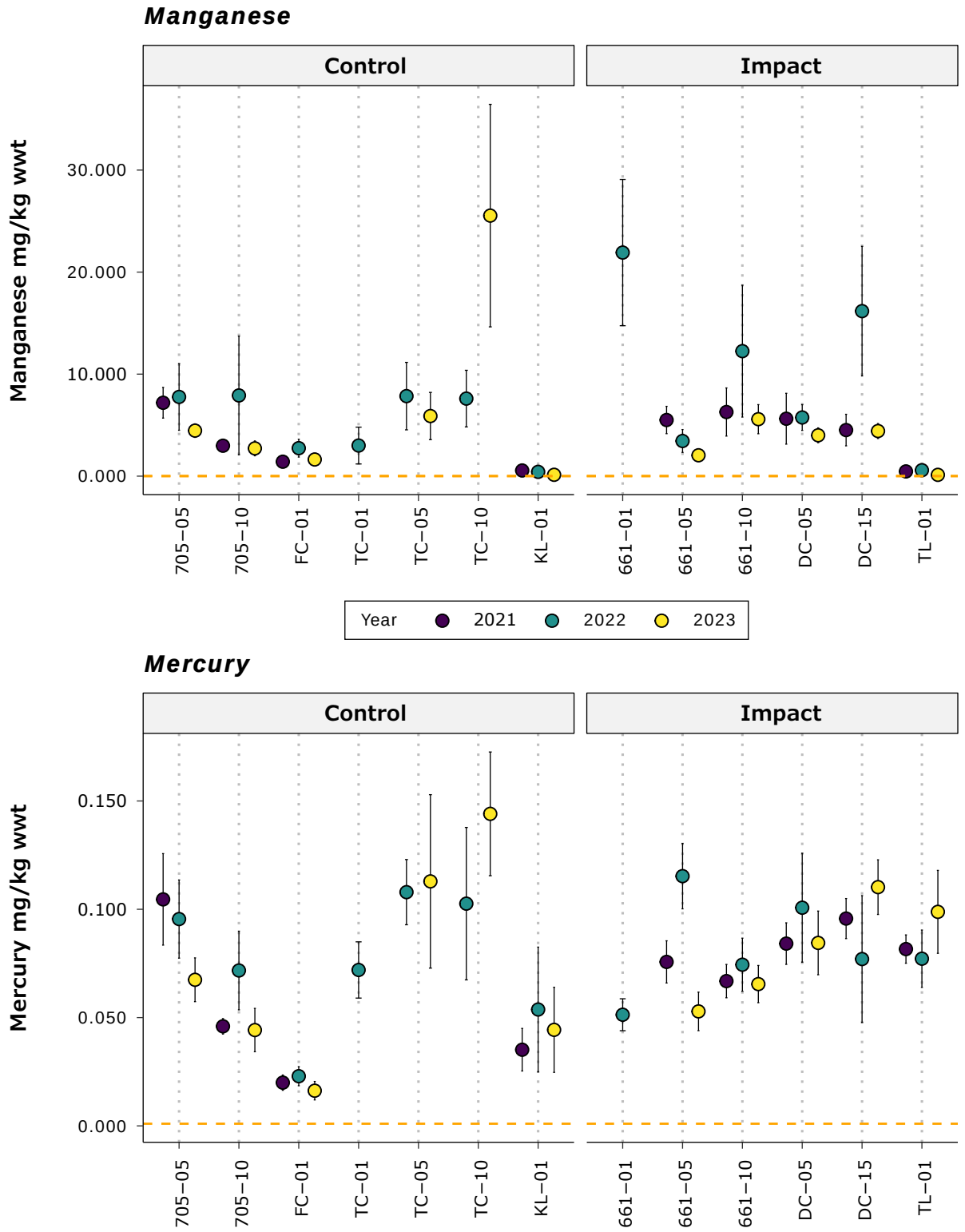
Notes: The colored circles represent the concentration means and the vertical lines represent the 95% confidence intervals. The orange broken line represents the detection limit. In 2023, site 661-05 also included samples obtained at site 661-04.

FIGURE 4 CONCENTRATIONS OF CONTAMINANTS OF CONCERN IN WHOLE BODY (JUVENILE RAINBOW TROUT) AND MUSCLE (ADULT RAINBOW TROUT, KOKANEE, MOUNTAIN WHITEFISH) FISH TISSUES AT CONTROL AND IMPACT SITES FOR BASELINE (2021/2022) AND CONSTRUCTION (2023)



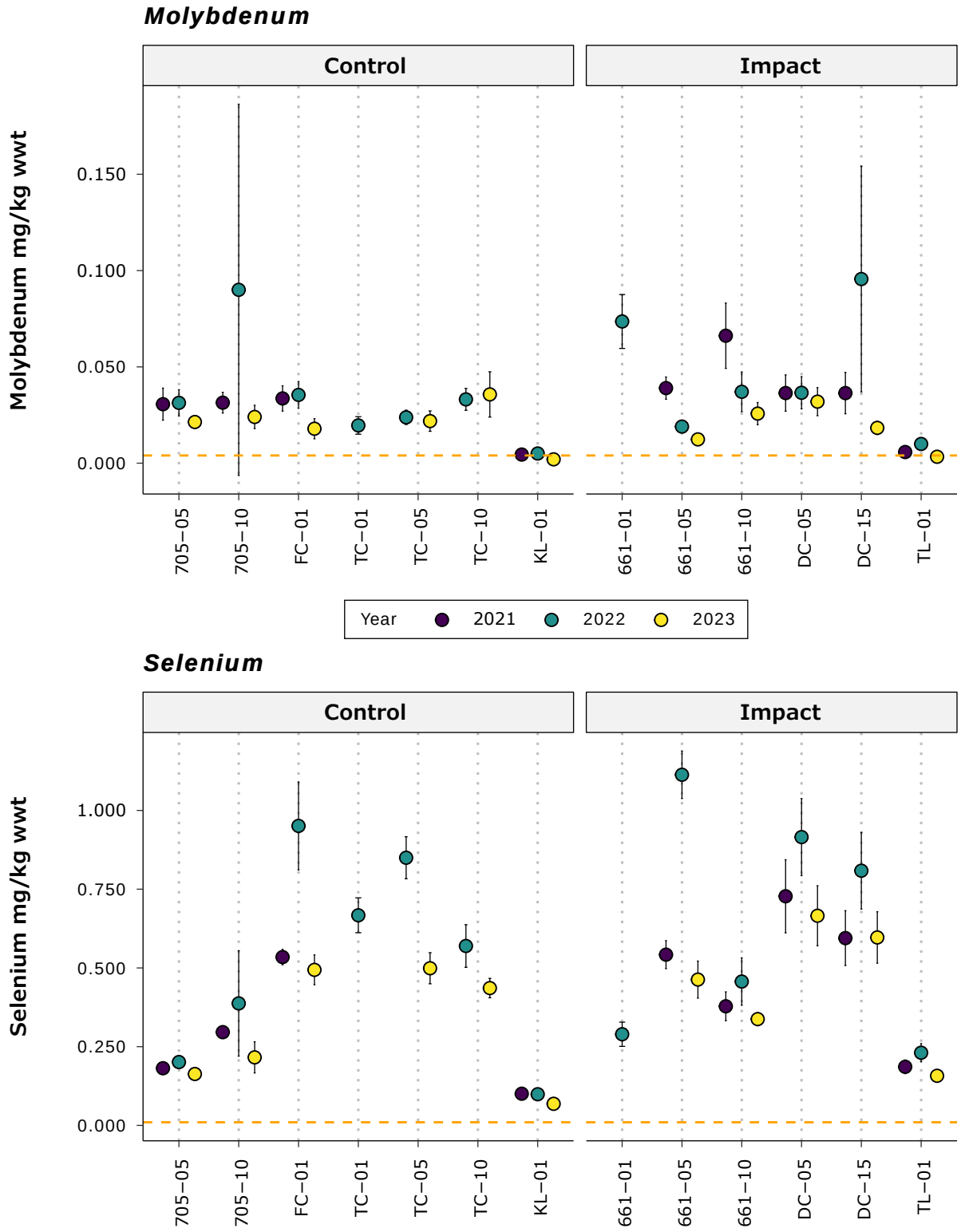
Notes: The colored circles represent the concentration means and the vertical lines represent the 95% confidence intervals. The orange broken line represents the detection limit. In 2023, site 661-05 also included samples obtained at site 661-04.

FIGURE 5 CONCENTRATIONS OF CONTAMINANTS OF CONCERN IN WHOLE BODY (JUVENILE RAINBOW TROUT) AND MUSCLE (ADULT RAINBOW TROUT, KOKANEE, MOUNTAIN WHITEFISH) FISH TISSUES AT CONTROL AND IMPACT SITES FOR BASELINE (2021/2022) AND CONSTRUCTION (2023)



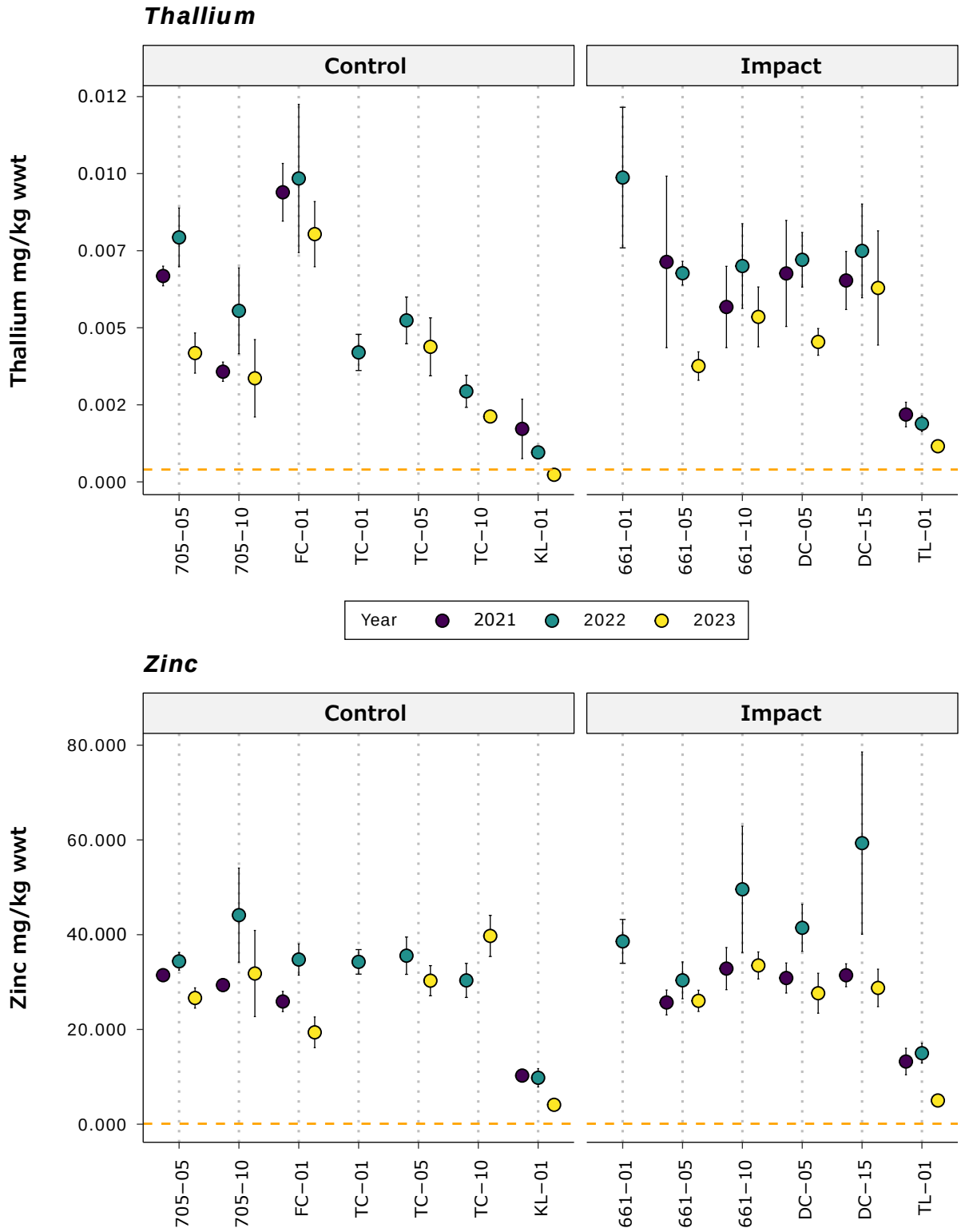
Notes: The colored circles represent the concentration means and the vertical lines represent the 95% confidence intervals. The orange broken line represents the detection limit. In 2023, site 661-05 also included samples obtained at site 661-04.

FIGURE 6 CONCENTRATIONS OF CONTAMINANTS OF CONCERN IN WHOLE BODY (JUVENILE RAINBOW TROUT) AND MUSCLE (ADULT RAINBOW TROUT, KOKANEE, MOUNTAIN WHITEFISH) FISH TISSUES AT CONTROL AND IMPACT SITES FOR BASELINE (2021/2022) AND CONSTRUCTION (2023)



Notes: The colored circles represent the concentration means and the vertical lines represent the 95% confidence intervals. The orange broken line represents the detection limit. In 2023, site 661-05 also included samples obtained at site 661-04.

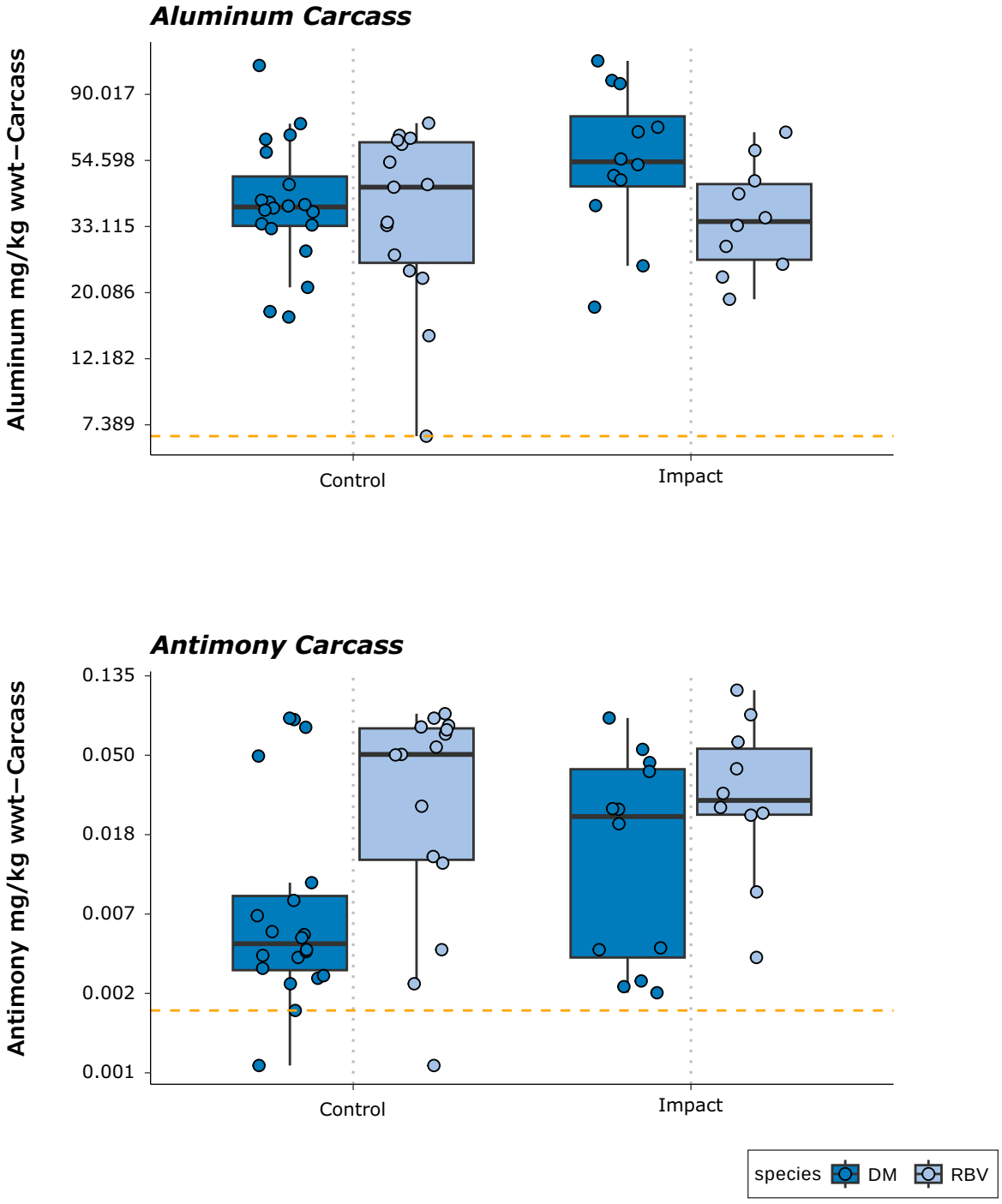
FIGURE 7 CONCENTRATIONS OF CONTAMINANTS OF CONCERN IN WHOLE BODY (JUVENILE RAINBOW TROUT) AND MUSCLE (ADULT RAINBOW TROUT, KOKANEE, MOUNTAIN WHITEFISH) FISH TISSUES AT CONTROL AND IMPACT SITES FOR BASELINE (2021/2022) AND CONSTRUCTION (2023)



Notes: The colored circles represent the concentration means and the vertical lines represent the 95% confidence intervals. The orange broken line represents the detection limit. In 2023, site 661-05 also included samples obtained at site 661-04.

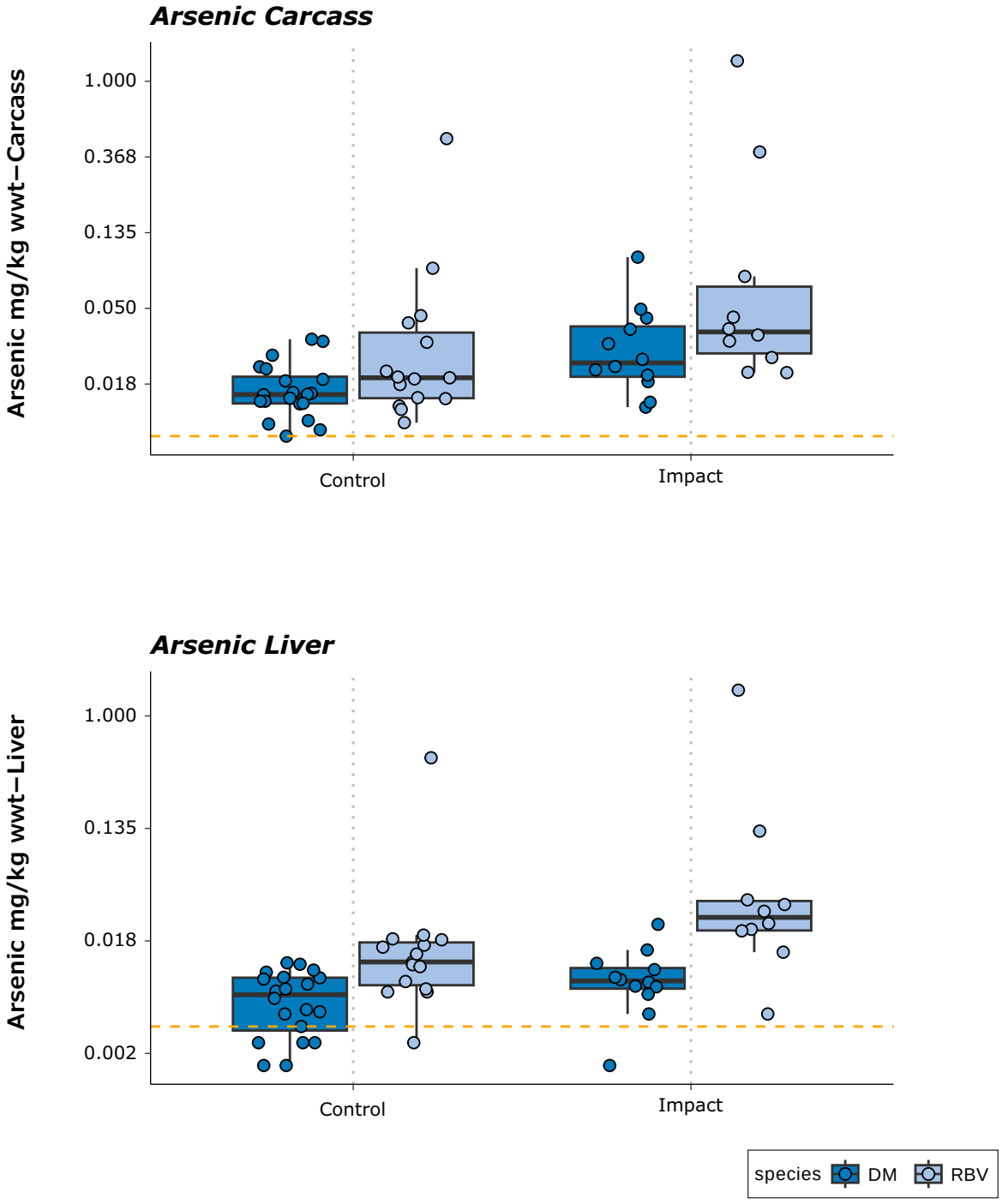
Appendix E.6 Box Plots of COPC Concentrations in Small Mammal Carcass and Liver Tissues

FIGURE 1 CONCENTRATION OF ALUMINUM AND ANTIMONY IN SMALL MAMMAL TISSUES AT CONTROL AND POTENTIAL IMPACT SITES WITHIN THE STUDY AREA



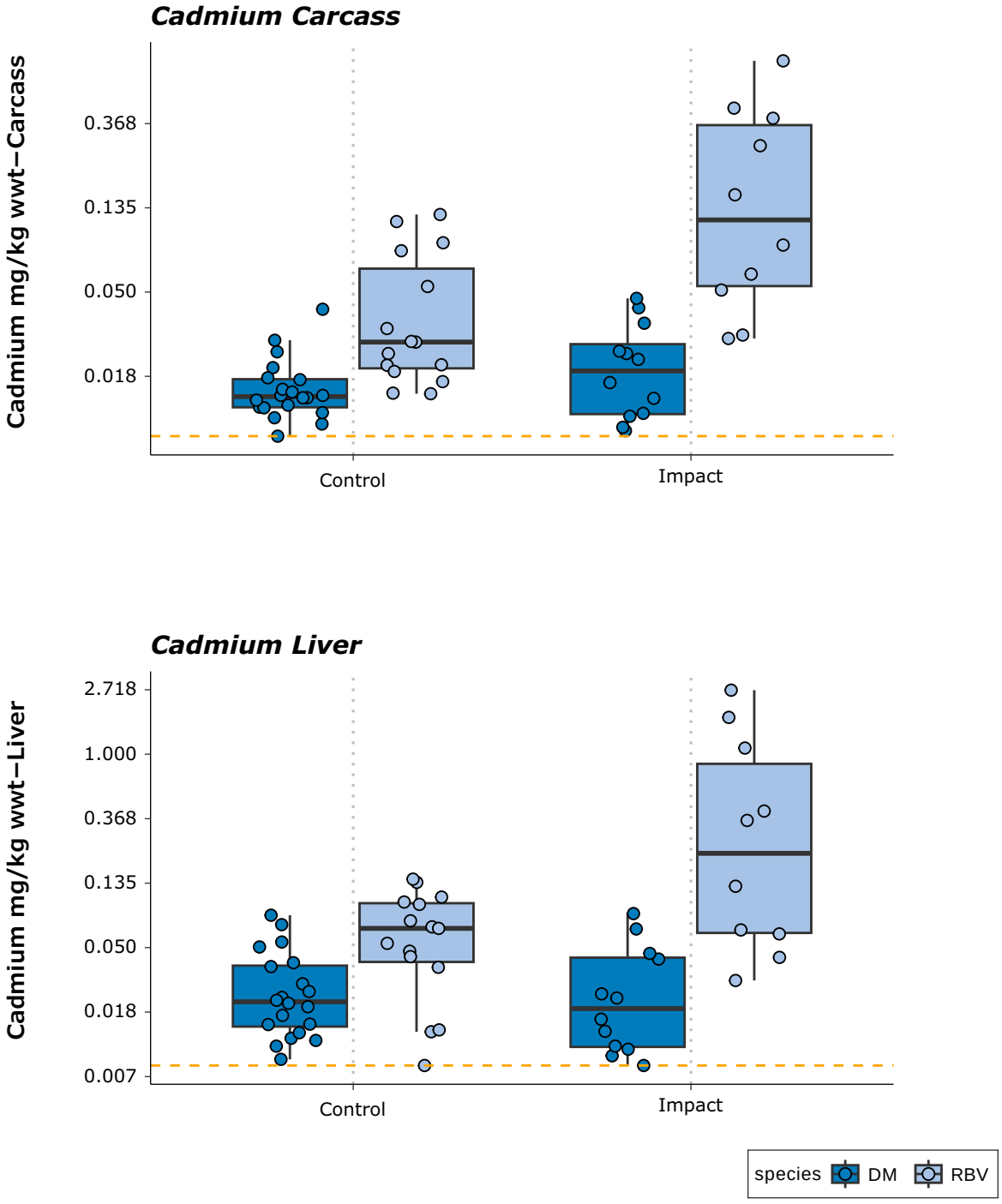
Notes: DM = Deer Mice RBV = Red-backed Voles wwt = wet weight
The center line of each box in the plot denotes the mean value, while the box contains the interquartile range (IQR) of the dataset.
The whiskers extend to 1.5 x IQR, and the points beyond these upper and lower bounds may be outliers.
Individual data points are marked with open circles.
The orange line denotes the lowest detection limit.
Contaminants of Potential Concern with a level of detection less than 70% in either carcass or liver tissue are not shown.
Impact sites include CFMP-SV-004, -006, -014, and -019. Control sites include CFMP-SV-024, -027, -032, and -040.

FIGURE 2 CONCENTRATION OF ARSENIC AND ARSENIC IN SMALL MAMMAL TISSUES AT CONTROL AND POTENTIAL IMPACT SITES WITHIN THE STUDY AREA



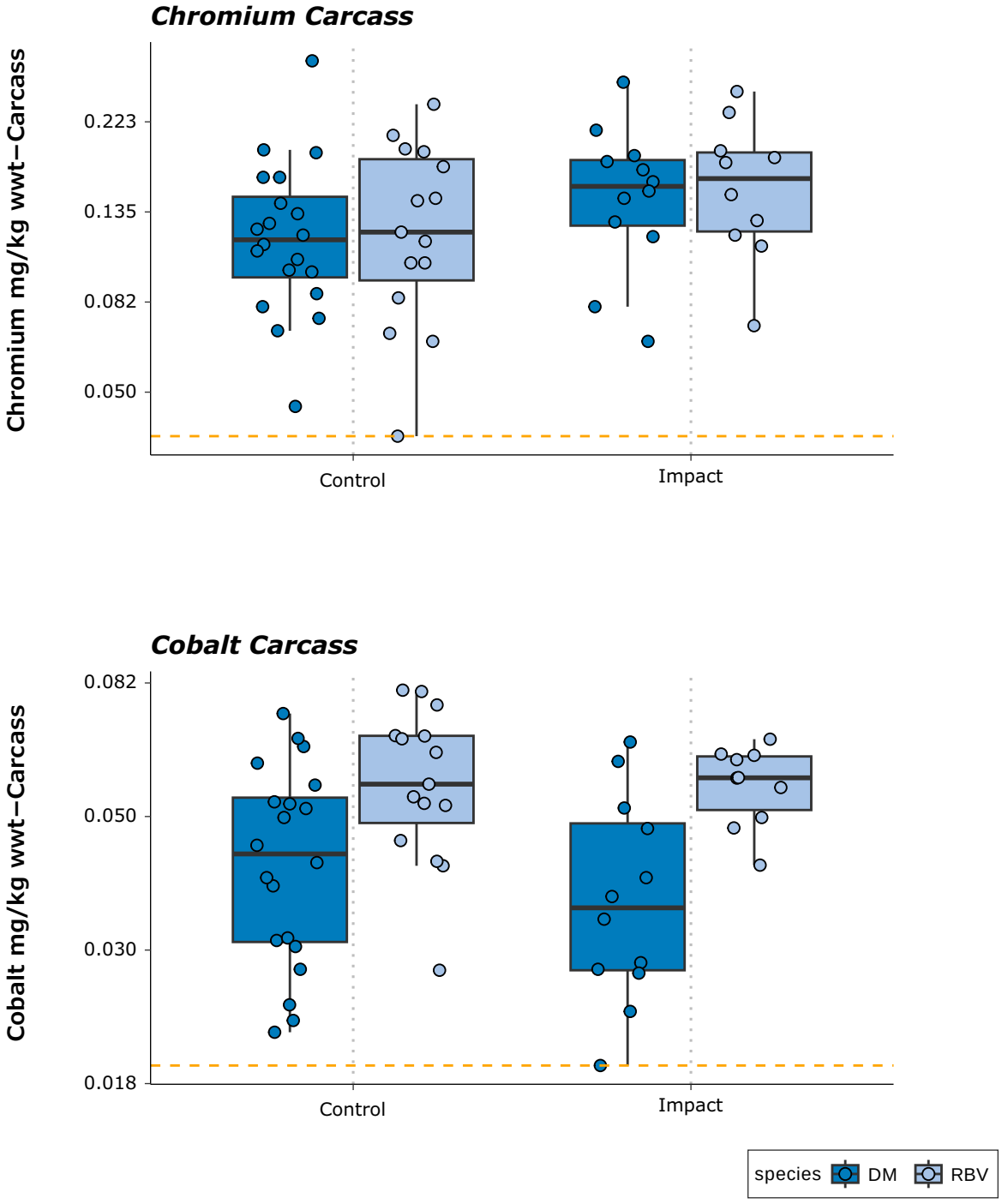
Notes: DM = Deer Mice RBV = Red-backed Voles wwt = wet weight
The center line of each box in the plot denotes the mean value, while the box contains the interquartile range (IQR) of the dataset.
The whiskers extend to 1.5 x IQR, and the points beyond these upper and lower bounds may be outliers.
Individual data points are marked with open circles.
The orange line denotes the lowest detection limit.
Contaminants of Potential Concern with a level of detection less than 70% in either carcass or liver tissue are not shown.
Impact sites include CFMP-SV-004, -006, -014, and -019. Control sites include CFMP-SV-024, -027, -032, and -040.

FIGURE 3 CONCENTRATION OF CADMIUM AND CADMIUM IN SMALL MAMMAL TISSUES AT CONTROL AND POTENTIAL IMPACT SITES WITHIN THE STUDY AREA



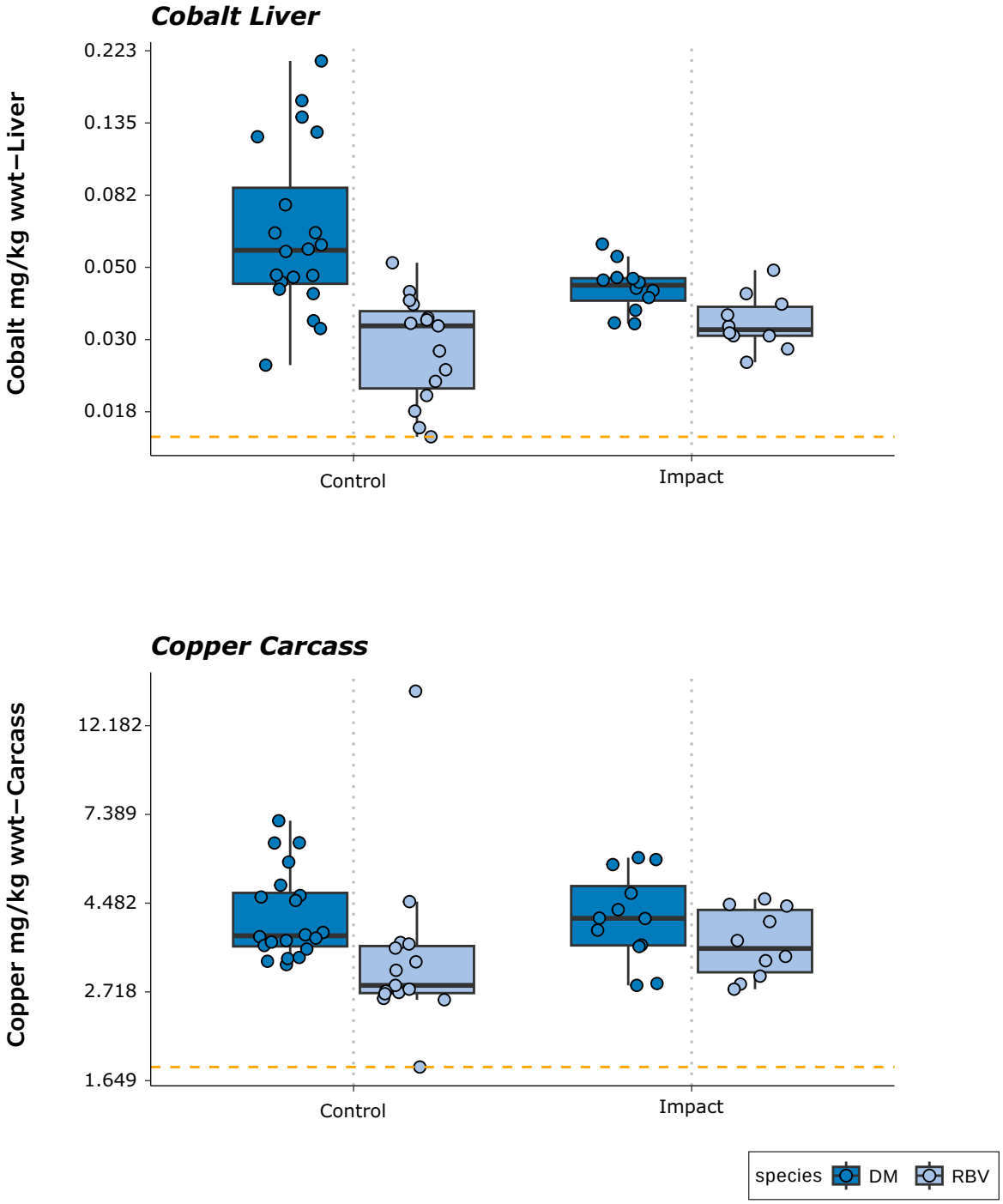
Notes: DM = Deer Mice RBV = Red-backed Voles wwt = wet weight
The center line of each box in the plot denotes the mean value, while the box contains the interquartile range (IQR) of the dataset.
The whiskers extend to 1.5 x IQR, and the points beyond these upper and lower bounds may be outliers.
Individual data points are marked with open circles.
The orange line denotes the lowest detection limit.
Contaminants of Potential Concern with a level of detection less than 70% in either carcass or liver tissue are not shown.
Impact sites include CFMP-SV-004, -006, -014, and -019. Control sites include CFMP-SV-024, -027, -032, and -040.

FIGURE 4 CONCENTRATION OF CHROMIUM AND COBALT IN SMALL MAMMAL TISSUES AT CONTROL AND POTENTIAL IMPACT SITES WITHIN THE STUDY AREA



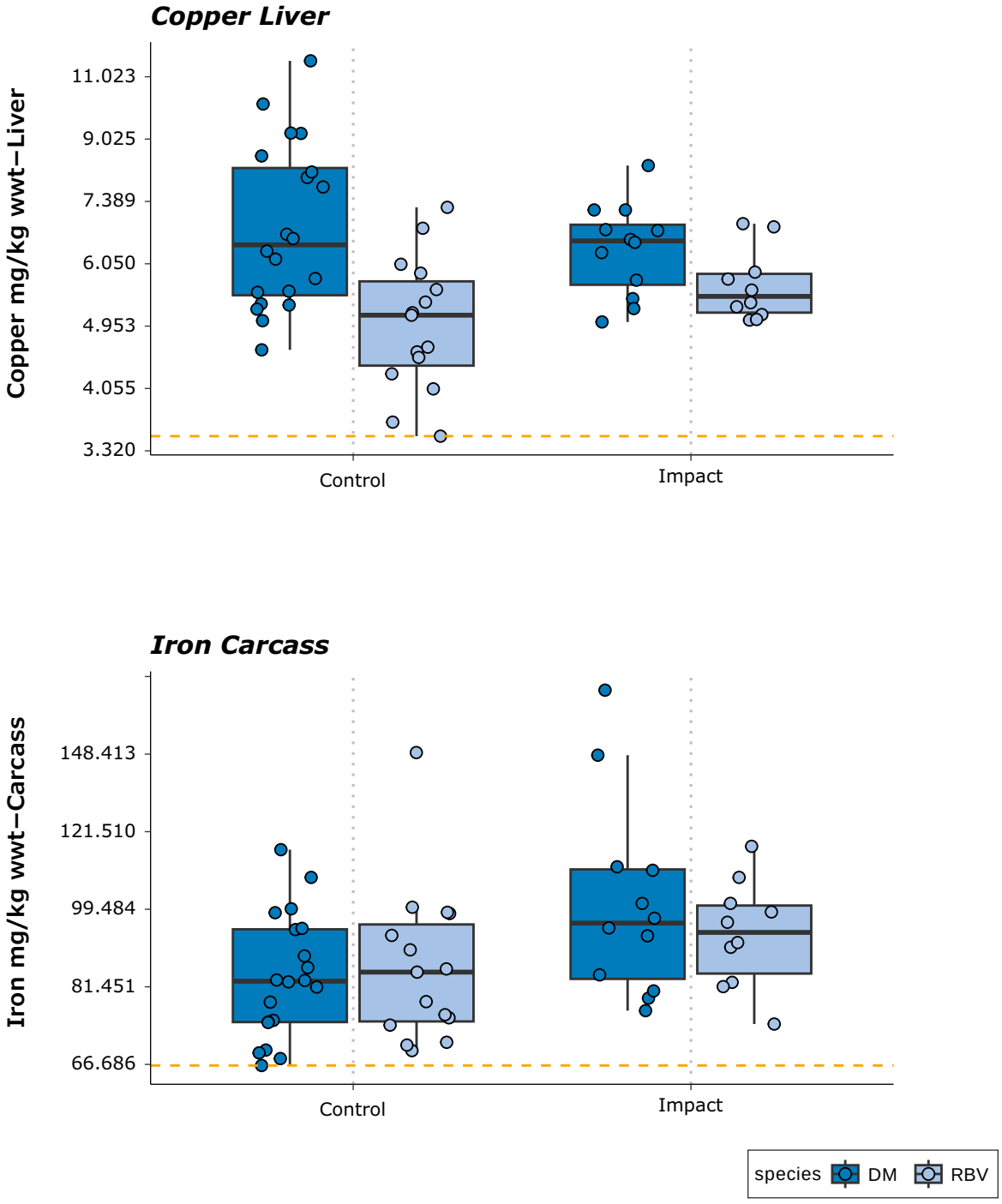
Notes: DM = Deer Mice RBV = Red-backed Voles wwt = wet weight
The center line of each box in the plot denotes the mean value, while the box contains the interquartile range (IQR) of the dataset.
The whiskers extend to 1.5 x IQR, and the points beyond these upper and lower bounds may be outliers.
Individual data points are marked with open circles.
The orange line denotes the lowest detection limit.
Contaminants of Potential Concern with a level of detection less than 70% in either carcass or liver tissue are not shown.
Impact sites include CFMP-SV-004, -006, -014, and -019. Control sites include CFMP-SV-024, -027, -032, and -040.

FIGURE 5 CONCENTRATION OF COBALT AND COPPER IN SMALL MAMMAL TISSUES AT CONTROL AND POTENTIAL IMPACT SITES WITHIN THE STUDY AREA



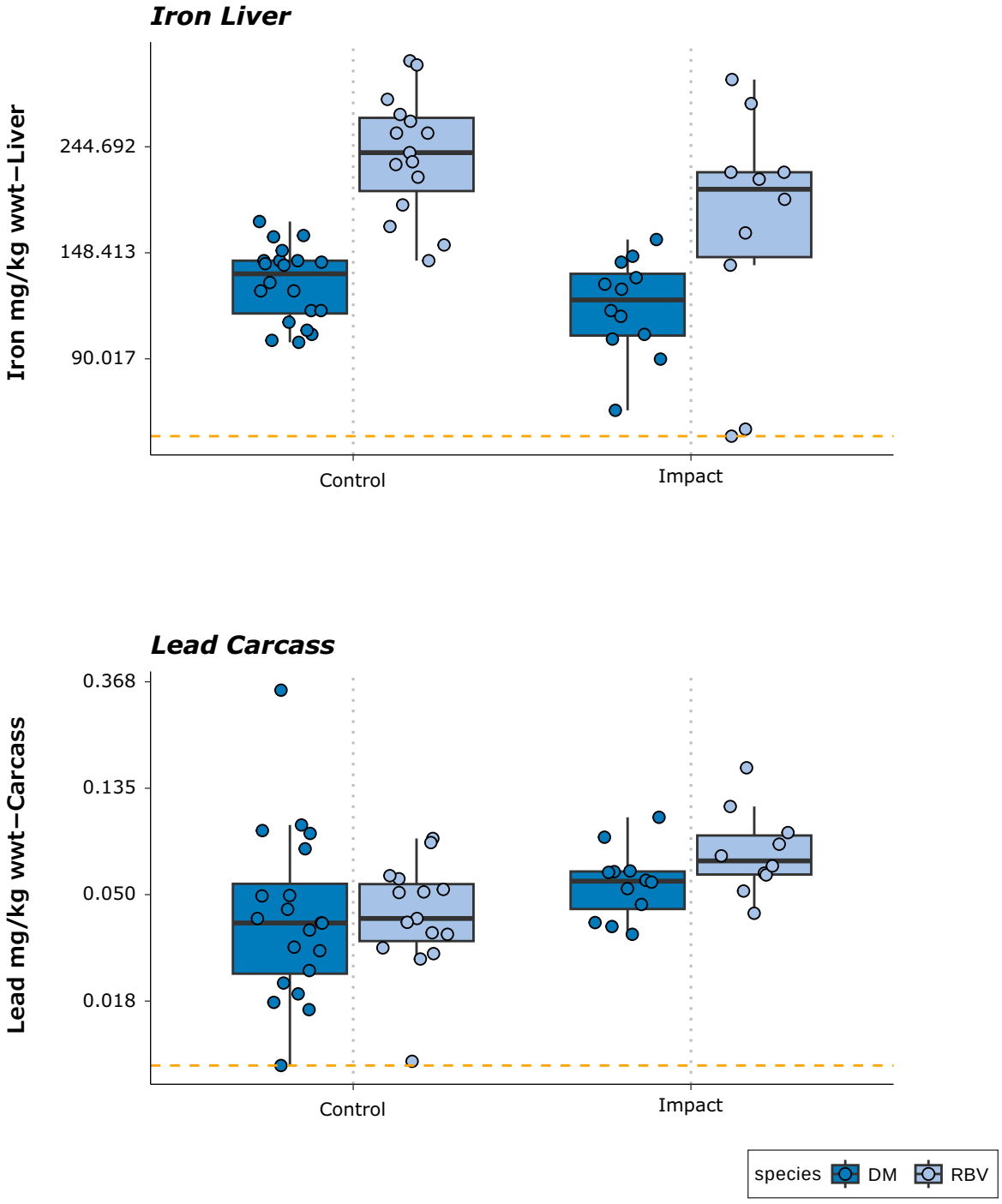
Notes: DM = Deer Mice RBV = Red-backed Voles wwt = wet weight
The center line of each box in the plot denotes the mean value, while the box contains the interquartile range (IQR) of the dataset.
The whiskers extend to 1.5 x IQR, and the points beyond these upper and lower bounds may be outliers.
Individual data points are marked with open circles.
The orange line denotes the lowest detection limit.
Contaminants of Potential Concern with a level of detection less than 70% in either carcass or liver tissue are not shown.
Impact sites include CFMP-SV-004, -006, -014, and -019. Control sites include CFMP-SV-024, -027, -032, and -040.

FIGURE 6 CONCENTRATION OF COPPER AND IRON IN SMALL MAMMAL TISSUES AT CONTROL AND POTENTIAL IMPACT SITES WITHIN THE STUDY AREA



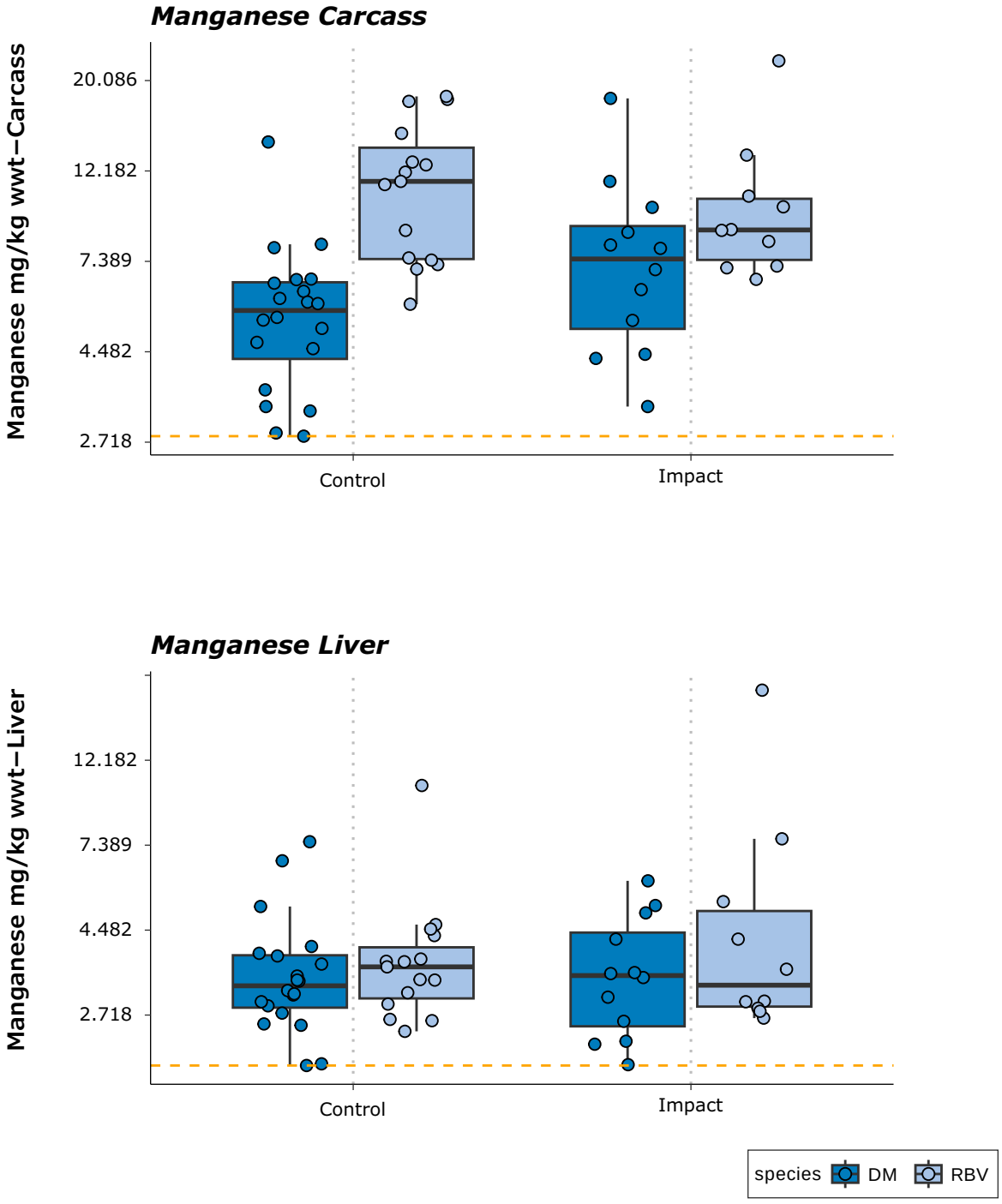
Notes: DM = Deer Mice RBV = Red-backed Voles wwt = wet weight
The center line of each box in the plot denotes the mean value, while the box contains the interquartile range (IQR) of the dataset.
The whiskers extend to 1.5 x IQR, and the points beyond these upper and lower bounds may be outliers.
Individual data points are marked with open circles.
The orange line denotes the lowest detection limit.
Contaminants of Potential Concern with a level of detection less than 70% in either carcass or liver tissue are not shown.
Impact sites include CFMP-SV-004, -006, -014, and -019. Control sites include CFMP-SV-024, -027, -032, and -040.

FIGURE 7 CONCENTRATION OF IRON AND LEAD IN SMALL MAMMAL TISSUES AT CONTROL AND POTENTIAL IMPACT SITES WITHIN THE STUDY AREA



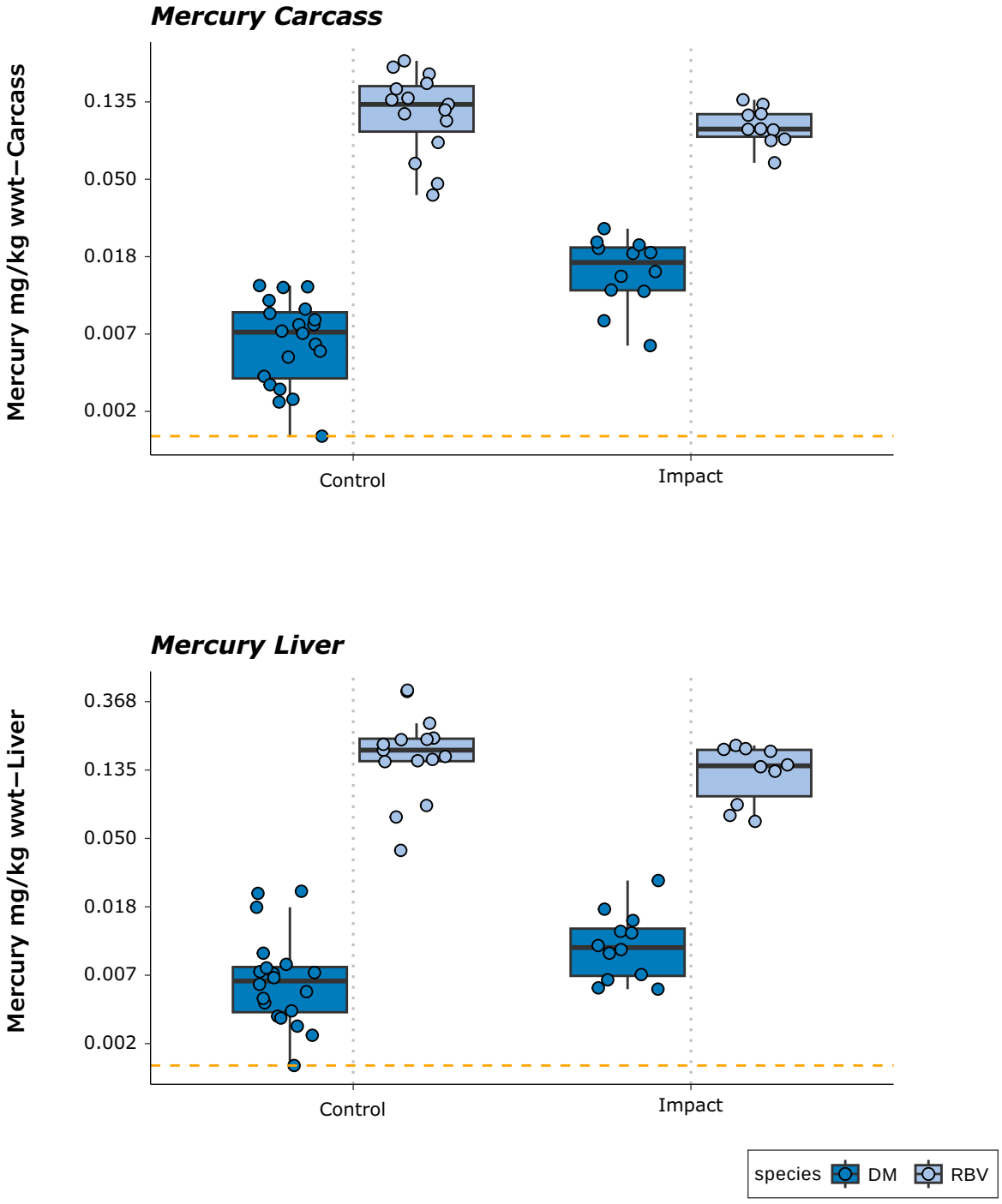
Notes: DM = Deer Mice RBV = Red-backed Voles wwt = wet weight
The center line of each box in the plot denotes the mean value, while the box contains the interquartile range (IQR) of the dataset.
The whiskers extend to 1.5 x IQR, and the points beyond these upper and lower bounds may be outliers.
Individual data points are marked with open circles.
The orange line denotes the lowest detection limit.
Contaminants of Potential Concern with a level of detection less than 70% in either carcass or liver tissue are not shown.
Impact sites include CFMP-SV-004, -006, -014, and -019. Control sites include CFMP-SV-024, -027, -032, and -040.

FIGURE 8 CONCENTRATION OF MANGANESE IN SMALL MAMMAL TISSUES AT CONTROL AND POTENTIAL IMPACT SITES WITHIN THE STUDY AREA



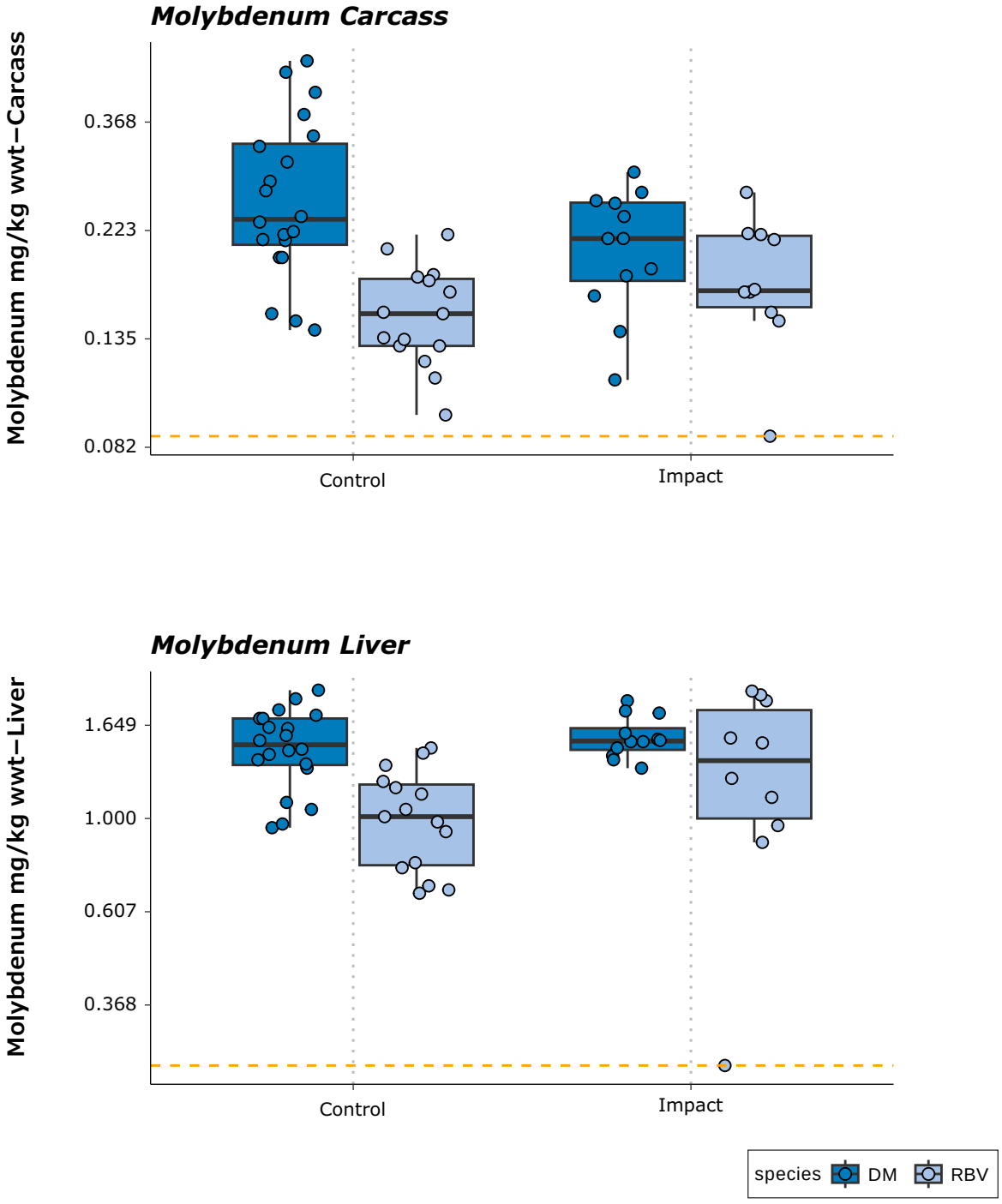
Notes: DM = Deer Mice RBV = Red-backed Voles wwt = wet weight
The center line of each box in the plot denotes the mean value, while the box contains the interquartile range (IQR) of the dataset.
The whiskers extend to 1.5 x IQR, and the points beyond these upper and lower bounds may be outliers.
Individual data points are marked with open circles.
The orange line denotes the lowest detection limit.
Contaminants of Potential Concern with a level of detection less than 70% in either carcass or liver tissue are not shown.
Impact sites include CFMP-SV-004, -006, -014, and -019. Control sites include CFMP-SV-024, -027, -032, and -040.

FIGURE 9 CONCENTRATION OF MERCURY IN SMALL MAMMAL TISSUES AT CONTROL AND POTENTIAL IMPACT SITES WITHIN THE STUDY AREA



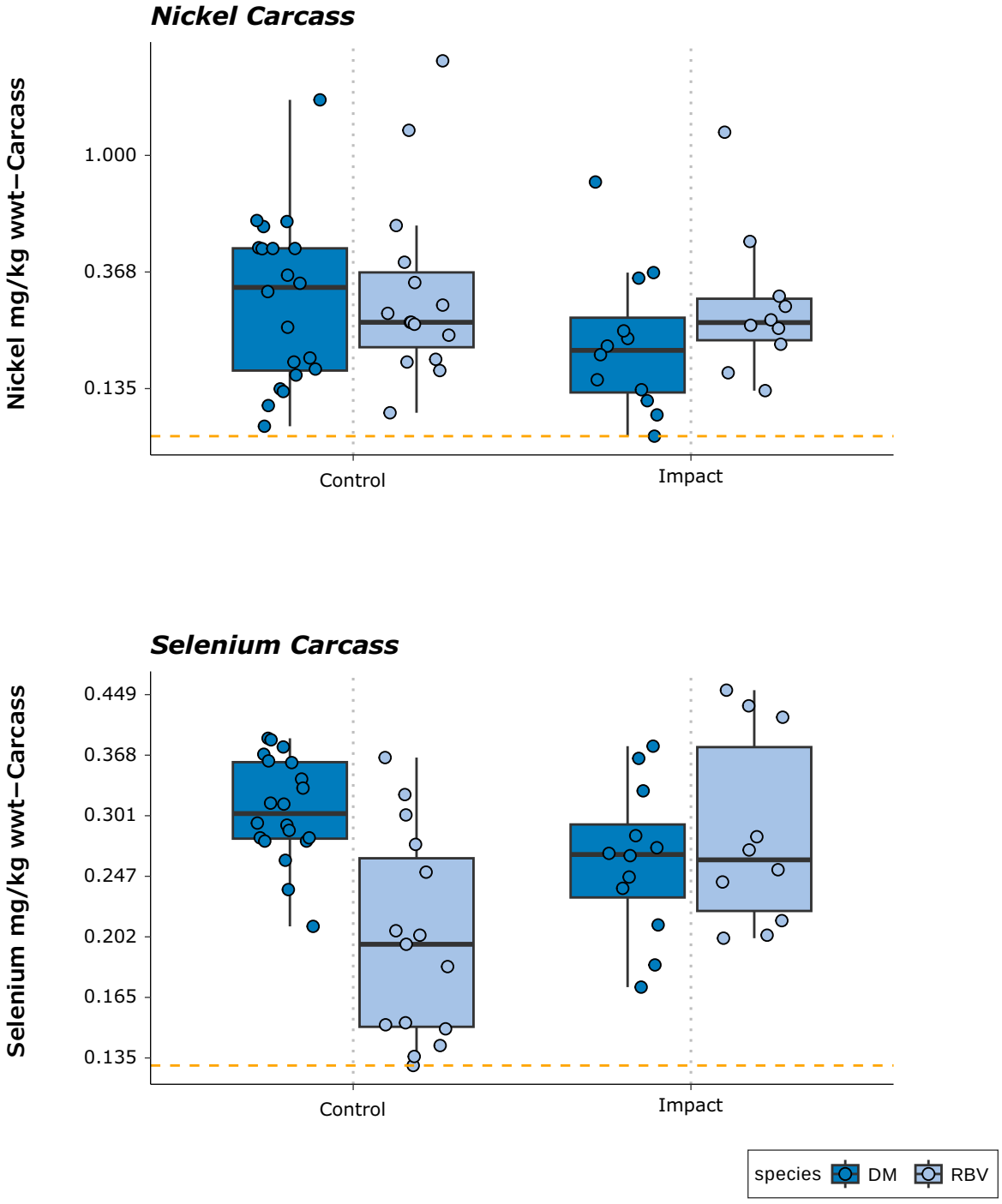
Notes: DM = Deer Mice RBV = Red-backed Voles wwt = wet weight
The center line of each box in the plot denotes the mean value, while the box contains the interquartile range (IQR) of the dataset.
The whiskers extend to 1.5 x IQR, and the points beyond these upper and lower bounds may be outliers.
Individual data points are marked with open circles.
The orange line denotes the lowest detection limit.
Contaminants of Potential Concern with a level of detection less than 70% in either carcass or liver tissue are not shown.
Impact sites include CFMP-SV-004, -006, -014, and -019. Control sites include CFMP-SV-024, -027, -032, and -040.

FIGURE 10 CONCENTRATION OF MOLYBDENUM IN SMALL MAMMAL TISSUES AT CONTROL AND POTENTIAL IMPACT SITES WITHIN THE STUDY AREA



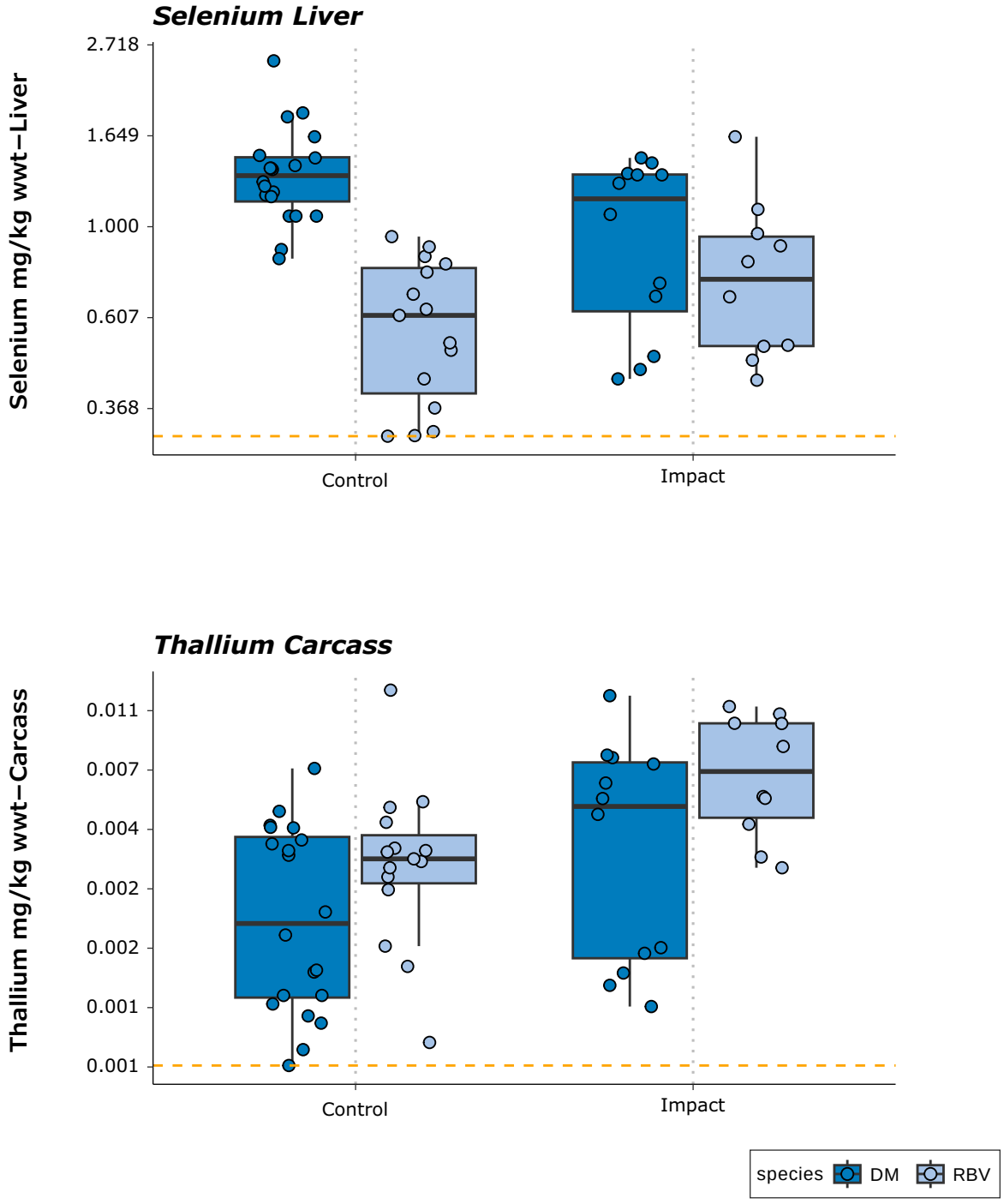
Notes: DM = Deer Mice RBV = Red-backed Voles wwt = wet weight
The center line of each box in the plot denotes the mean value, while the box contains the interquartile range (IQR) of the dataset.
The whiskers extend to 1.5 x IQR, and the points beyond these upper and lower bounds may be outliers.
Individual data points are marked with open circles.
The orange line denotes the lowest detection limit.
Contaminants of Potential Concern with a level of detection less than 70% in either carcass or liver tissue are not shown.
Impact sites include CFMP-SV-004, -006, -014, and -019. Control sites include CFMP-SV-024, -027, -032, and -040.

FIGURE 11 CONCENTRATION OF NICKEL AND SELENIUM IN SMALL MAMMAL TISSUES AT CONTROL AND POTENTIAL IMPACT SITES WITHIN THE STUDY AREA



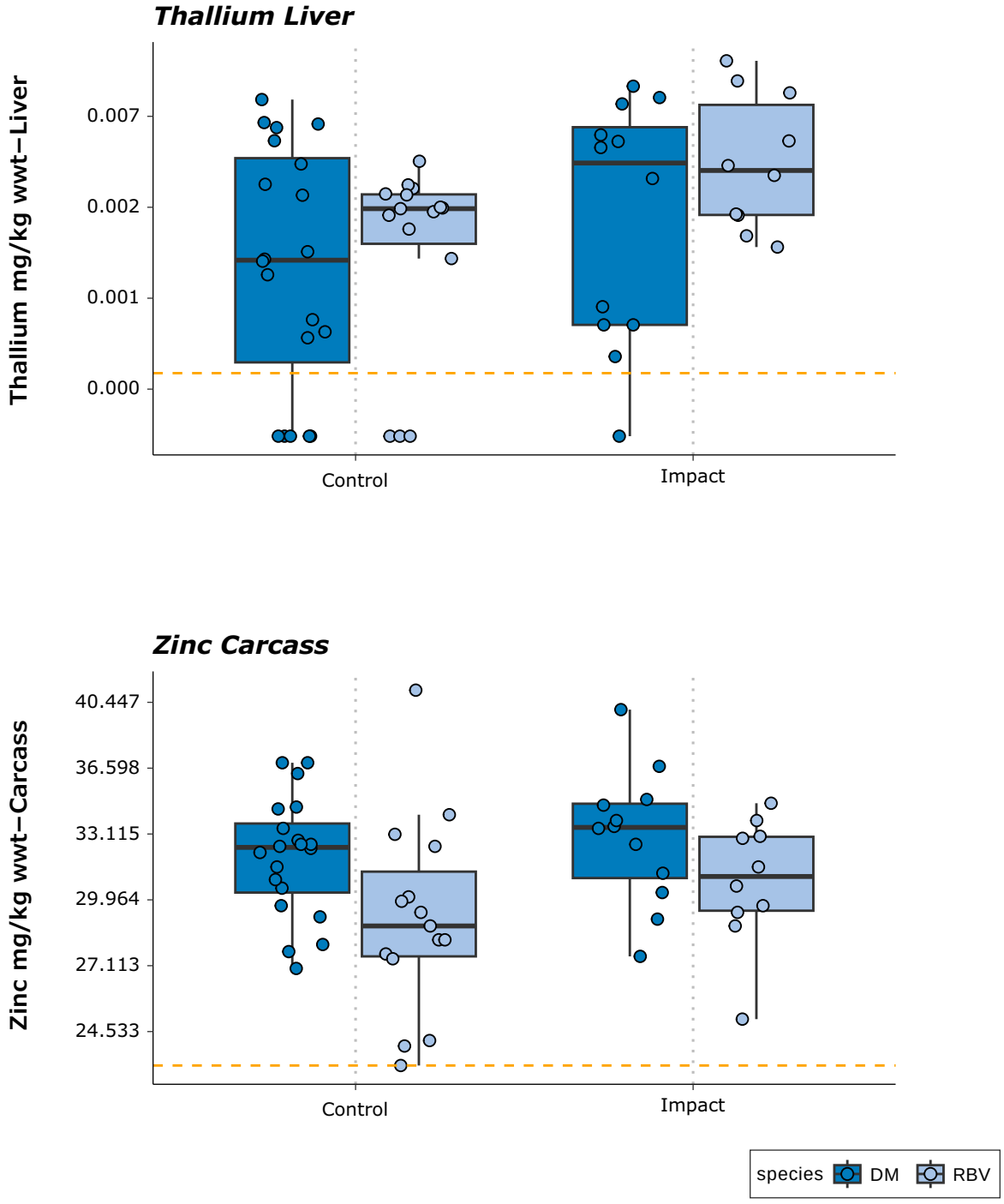
Notes: DM = Deer Mice RBV = Red-backed Voles wwt = wet weight
The center line of each box in the plot denotes the mean value, while the box contains the interquartile range (IQR) of the dataset.
The whiskers extend to 1.5 x IQR, and the points beyond these upper and lower bounds may be outliers.
Individual data points are marked with open circles.
The orange line denotes the lowest detection limit.
Contaminants of Potential Concern with a level of detection less than 70% in either carcass or liver tissue are not shown.
Impact sites include CFMP-SV-004, -006, -014, and -019. Control sites include CFMP-SV-024, -027, -032, and -040.

FIGURE 12 CONCENTRATION OF SELENIUM AND THALLIUM IN SMALL MAMMAL TISSUES AT CONTROL AND POTENTIAL IMPACT SITES WITHIN THE STUDY AREA



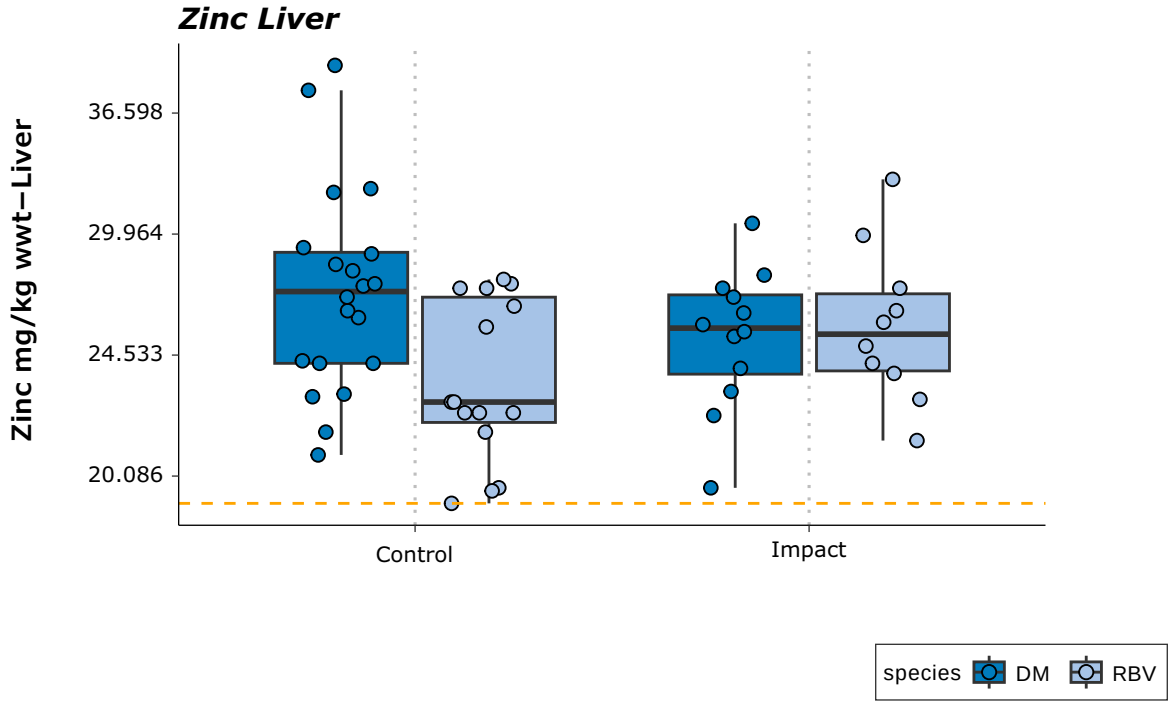
Notes: DM = Deer Mice RBV = Red-backed Voles wwt = wet weight
The center line of each box in the plot denotes the mean value, while the box contains the interquartile range (IQR) of the dataset.
The whiskers extend to 1.5 x IQR, and the points beyond these upper and lower bounds may be outliers.
Individual data points are marked with open circles.
The orange line denotes the lowest detection limit.
Contaminants of Potential Concern with a level of detection less than 70% in either carcass or liver tissue are not shown.
Impact sites include CFMP-SV-004, -006, -014, and -019. Control sites include CFMP-SV-024, -027, -032, and -040.

FIGURE 13 CONCENTRATION OF THALLIUM AND ZINC IN SMALL MAMMAL TISSUES AT CONTROL AND POTENTIAL IMPACT SITES WITHIN THE STUDY AREA



Notes: DM = Deer Mice RBV = Red-backed Voles wwt = wet weight
The center line of each box in the plot denotes the mean value, while the box contains the interquartile range (IQR) of the dataset.
The whiskers extend to 1.5 x IQR, and the points beyond these upper and lower bounds may be outliers.
Individual data points are marked with open circles.
The orange line denotes the lowest detection limit.
Contaminants of Potential Concern with a level of detection less than 70% in either carcass or liver tissue are not shown.
Impact sites include CFMP-SV-004, -006, -014, and -019. Control sites include CFMP-SV-024, -027, -032, and -040.

FIGURE 14 CONCENTRATION OF ZINC IN SMALL MAMMAL TISSUES AT CONTROL AND POTENTIAL IMPACT SITES WITHIN THE STUDY AREA



APPENDIX F POWER ANALYSIS FOR SMALL MAMMAL TISSUE SAMPLING

Contents

F.1 Power and Sample Size Simulations **F-1**
F.1.1 Methods F-1
F.1.2 Results F-1

Appendix F

F.1 Power and Sample Size Simulations

F.1.1 Methods

Using the data from 2023, power and sample size estimation was conducted to see what number of animals per site would be needed to detect an impact. The size of the impact (difference between impact and control sites) was varied from 25% higher concentrations at impact sites, to 50% higher concentrations at impact sites. Given there is a difference between the species for many analytes, we used the estimated difference between the species for each analyte in 2023 in the simulations. Simulations proceeded as follows.

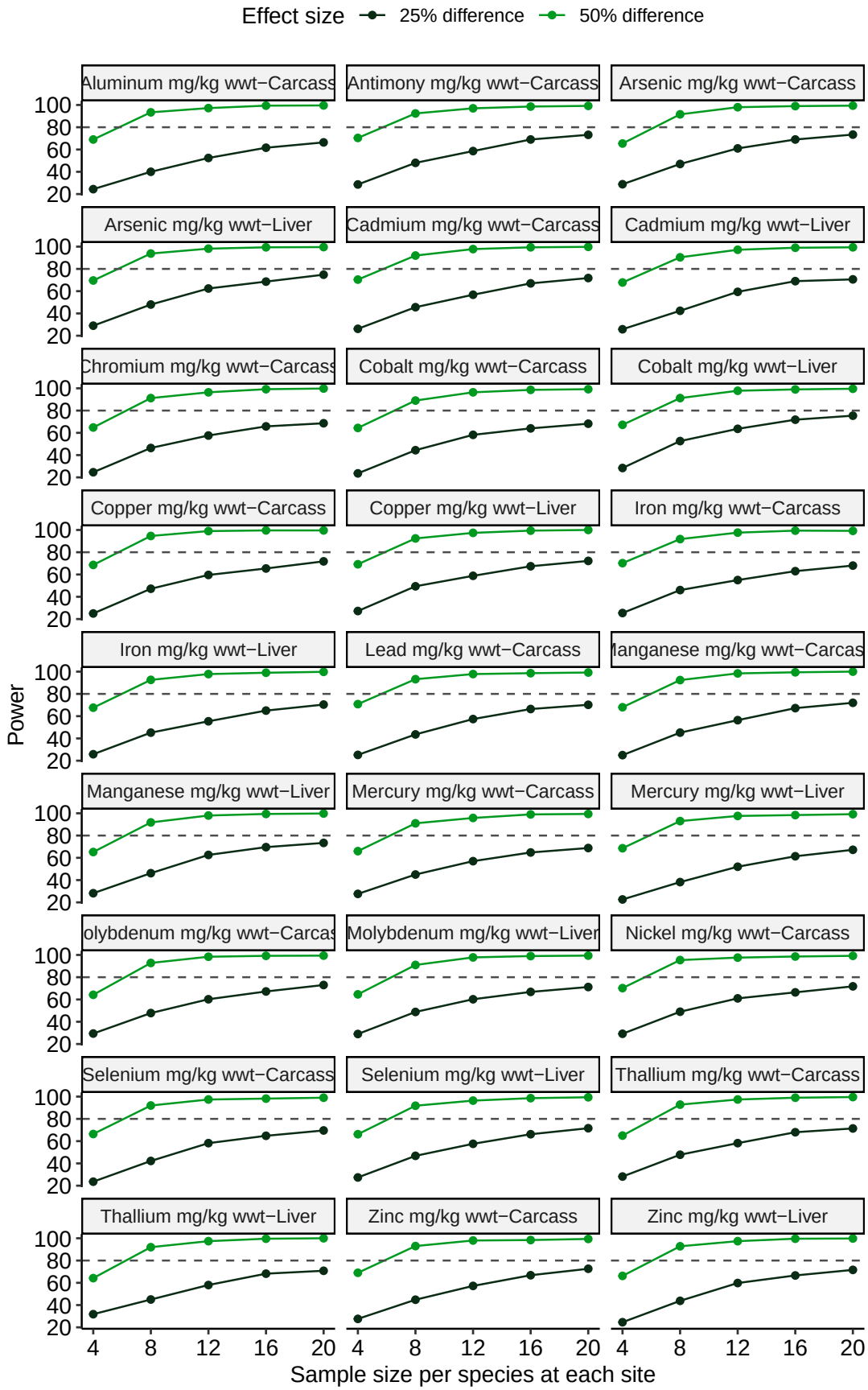
For each analyte and tissue combination for which there was at least 70% detection:

1. Fit a mixed-effects linear model of log-concentration by site type and species, with a random effect for site ID
2. Use the estimated coefficient for the species term and the estimated variance for the random effect of site ID, but changed the effect of site type to be a difference of 25% or 50%
3. Vary the sample size of animals of each species within a site from 4 to 20 in increments of 4 (e.g. four of each species would be eight total per site)
4. Simulate data for each effect size and sample size 500 times
5. Test each simulated data set using the linear mixed-effects model described above and generate a p-value for the site type term

Power for any given simulation run was then calculated as the number of tests with a p-value for site type that was < 0.05, divided by the total number of simulations (500). I.e. the proportion of times that the site type term was significant in the model, controlling for species differences.

F.1.2 Results

With a sample size of 8 animals per species per site (16 per site, 64 at impact sites, 64 at control sites) all analytes by tissue combinations achieved >80% power to detect a site effect when the impact site was modeled as 50% higher in concentration on average. Four animals per species per site had power ranging from 60-70% depending on the analyte and tissue combination. If the effect size was reduced to a 25% difference in concentration between impact and control, then power exceeded 70% only with 20 animals per species per site.


Effect size
25% difference
50% difference
Aluminum mg/kg wwt−Carcass
Antimony mg/kg wwt−Carcass
Arsenic mg/kg wwt−Carcass
Arsenic mg/kg wwt−Liver
Cadmium mg/kg wwt−Carcass
Cadmium mg/kg wwt−Liver
Chromium mg/kg wwt−Carcass
Cobalt mg/kg wwt−Carcass
Cobalt mg/kg wwt−Liver
Copper mg/kg wwt−Carcass
Copper mg/kg wwt−Liver
Iron mg/kg wwt−Carcass
Iron mg/kg wwt−Liver
Lead mg/kg wwt−Carcass
Manganese mg/kg wwt−Carcass
Manganese mg/kg wwt−Liver
Mercury mg/kg wwt−Carcass
Mercury mg/kg wwt−Liver
Molybdenum mg/kg wwt−Carcass
Molybdenum mg/kg wwt−Liver
Nickel mg/kg wwt−Carcass
Selenium mg/kg wwt−Carcass
Selenium mg/kg wwt−Liver
Thallium mg/kg wwt−Carcass
Thallium mg/kg wwt−Liver
Zinc mg/kg wwt−Carcass
Zinc mg/kg wwt−Liver
Power
20
40
60
80
100
4
8
12
16
20
Sample size per species at each site

APPENDIX G RESULTS FOR RELATIVE PERCENT DIFFERENCE CALCULATIONS

Appendix G.1 RPD Calculations and Results for Soil Quality

Appendix G.2 RPD Calculations and Results for Plant and Berry Tissue Quality

Appendix G.3 RPD Calculations and Results for Surface Water Quality

Appendix G.1 RPD Calculations and Results for Soil Quality

Appendix G-1: Relative Percent Differences for Field Split Duplicate Samples of Soil, 2023

Sample ID:		016-SOIL and DUP-SOIL			002-SOIL and DUP3-SOIL			017-SOIL and DUP4-SOIL			030-SOIL and DUP2-SOIL		
Sample Date:		21-Sep-2023			07-Sep-2023			07-Sep-2023			06-Sep-2023		
Parameter	Lowest Detection Limit	Regular (mg/kg dw)	Replicate (mg/kg dw)	RPD (%)	Regular (mg/kg dw)	Replicate (mg/kg dw)	RPD (%)	Regular	Replicate	RPD	Regular (mg/kg dw)	Replicate (mg/kg dw)	RPD (%)
pH(pH units)	0.1	5.19	5.22	1%	6.42	7.05	9%	4.62	4.85	5%	4.36	4.82	10%
Aluminum	50	12500	12900	3%	8880	8660	3%	10100	9360	8%	12200	15600	24%
Antimony	0.10	0.3	0.3	NC	0.18	0.18	NC	0.26	0.35	NC	0.14	**0.15**	NC
Arsenic	0.10	3.68	3.87	5%	2.23	2.35	5%	2.46	3.59	37%	1.38	**1.84**	29%
Barium	0.50	68.9	67.8	2%	139	106	27%	86.6	79.5	9%	64.7	75	15%
Beryllium	0.10	0.39	0.37	NC	0.32	0.31	NC	0.27	0.3	NC	0.19	0.24	NC
Bismuth	0.20	0.1	0.1	NC	0.1	0.1	NC	0.1	0.1	NC	0.1	0.1	NC
Boron	5.0	2.5	2.5	NC	2.5	2.5	NC	2.5	2.5	NC	2.5	2.5	NC
Cadmium	0.02	0.046	0.049	NC	0.107	0.087	NC	0.113	0.092	NC	0.027	0.035	NC
Calcium	50	2020	2010	0%	9700	6660	37%	1720	1660	4%	2040	2360	15%
Chromium	0.5	19.3	19.2	1%	9.04	8.98	1%	12.7	13	2%	9.99	11.1	11%
Cobalt	0.10	5.98	5.84	2%	3.1	2.97	4%	4.68	5.04	7%	1.73	2.47	35%
Copper	0.50	8.92	8.88	0%	8.61	7.53	13%	4.71	5.15	9%	4.51	5.65	22%
Iron	50	20700	21100	2%	15000	14100	6%	15600	17900	14%	8900	11900	29%
Lead	0.50	4.44	4.46	0%	3.92	3.88	1%	7.1	6.74	5%	5.36	6.36	17%
Lithium	2.0	6	5.9	NC	4.3	4	NC	5.9	6.2	NC	2.7	3.5	NC
Magnesium	20	2950	2900	2%	1660	1470	12%	2380	2700	13%	911	1670	59%
Manganese	1.0	197	195	1%	648	350	**60%**	760	780	3%	80.7	112	32%
Mercury	0.0050	0.0192	0.033	NC	0.0334	0.0208	NC	0.013	0.0115	NC	0.0375	0.0467	22%
Molybdenum	0.10	0.54	0.54	0%	0.84	0.78	7%	0.74	0.75	1%	0.35	0.4	NC
Nickel	0.50	14.6	14.4	1%	4.34	4.42	2%	7.98	7.69	4%	5.37	6.88	25%
Phosphorus	50	629	680	8%	806	636	24%	638	743	15%	347	470	30%
Potassium	100	420	450	NC	650	660	2%	770	750	3%	520	540	4%
Selenium	0.20	0.1	0.1	NC	0.1	0.1	NC	0.1	0.1	NC	0.1	0.1	NC
Silver	0.10	0.05	0.05	NC	0.12	0.11	NC	0.05	0.05	NC	0.05	0.05	NC
Sodium	50	111	118	NC	94	107	NC	89	94	NC	119	130	NC
Strontium	0.50	15.6	15.9	2%	72	54.9	27%	14	12.8	9%	23.9	27.7	15%
Sulfur	1000	500	500	NC	500	500	NC	500	500	NC	500	500	NC
Thallium	0.050	0.05	0.052	NC	**0.025**	**0.025**	NC	0.106	0.084	NC	0.086	0.088	NC
Tin	2.0	1	1	NC	1	1	NC	1	1	NC	1	1	NC
Titanium	1.0	732	763	4%	515	588	13%	481	485	1%	358	323	10%
Tungsten	0.5	0.25	0.25	NC	0.25	0.25	NC	0.25	0.25	NC	0.25	0.25	NC
Uranium	0.05	0.302	0.302	0%	0.526	0.487	8%	0.425	0.459	8%	0.437	0.452	3%
Vanadium	0.2	51.8	51.7	0%	36.4	35.2	3%	35.8	38.4	7%	23.7	28.7	19%
Zinc	2.0	36.3	36.3	0%	28.3	28.8	2%	66.7	64	4%	19.5	22.8	16%
Zirconium	1.0	4.4	4.4	NC	1.6	1.4	NC	2.4	**2.2**	NC	0.5	0.5	NC

Notes:

NC = Not calculated because measured values less than five times the method detection limit.

Unacceptable relative percent differences (RPDs) of 60% or higher are highlighted in grey and bolded based on CCME (2016).

Appendix G.2 RPD Calculations and Results for Plant and Berry Tissue Quality

Appendix G-2: Relative Percent Differences for Field Split Duplicate Samples of Plants, 2023

Sample ID:		013-WILL and DUP2-WILL			019-LAB and DUP1-LAB			007-SEDGE and DUP1-SEDGE			007-WILL and DUP1-WILL		
Sample Date:		07-Sep-2023			03-Sep-2023			05-Sep-2023			05-Sep-2023		
Parameter	Lowest Detection Limit	Regular (mg/kg dw)	Replicate (mg/kg dw)	RPD (%)	Regular (mg/kg dw)	Replicate (mg/kg dw)	RPD (%)	Regular	Replicate	RPD	Regular (mg/kg dw)	Replicate (mg/kg dw)	RPD (%)
Moisture (%)	0.50	64.7	64.8	0%	52.8	57.7	9%	66.7	71.3	7%	69.5	67.8	2%
Aluminum	2.0	55.5	49.8	11%	34.6	26.2	28%	20.7	26.3	24%	21.8	22.8	4%
Antimony	0.010	0.005	0.013	NC	0.005	0.005	NC	0.005	0.011	NC	0.019	0.01	NC
Arsenic	0.020	0.033	0.032	NC	0.046	0.01	NC	0.334	0.17	**65%**	0.108	0.035	NC
Barium	0.050	41.6	37	12%	79.8	83.9	5%	52.7	74.2	34%	9.74	12.1	22%
Beryllium	0.010	0.005	0.005	NC	0.005	0.005	NC	0.005	0.005	NC	0.005	0.005	NC
Bismuth	0.010	0.005	0.005	NC	0.005	0.005	NC	0.005	0.005	NC	0.005	0.005	NC
Boron	1.0	23.9	20	18%	28.6	29.6	3%	5.4	5.1	6%	18.9	18.1	4%
Cadmium	0.0050	2.54	2.23	13%	0.0025	0.0025	NC	0.0172	0.0296	NC	**1.27**	1.12	13%
Calcium	20	19500	18500	5%	6470	7100	9%	2670	3220	19%	16000	18200	13%
Cesium	0.0050	0.0088	0.0099	NC	0.0102	0.0105	NC	0.515	0.305	51%	0.118	0.0909	26%
Chromium	0.050	0.061	0.072	NC	0.061	0.061	NC	0.059	0.025	NC	0.025	0.025	NC
Cobalt	0.020	0.821	1.17	35%	0.01	0.01	NC	0.04	0.038	NC	0.684	1.01	38%
Copper	0.10	2.48	3.1	22%	2.72	2.69	1%	1.57	1.74	10%	3.09	3.67	17%
Iron	3.0	78.8	86.7	10%	61.5	46.4	28%	121	129	6%	62.4	66.4	6%
Lead	0.020	0.057	0.059	NC	0.04	0.028	NC	0.022	0.056	NC	0.04	0.028	NC
Lithium	0.50	0.25	0.25	NC	0.25	0.25	NC	0.25	0.25	NC	0.25	0.25	NC
Magnesium	2.0	2540	2420	5%	1620	1370	17%	1450	1410	3%	2000	2460	21%
Manganese	0.050	355	287	21%	891	973	9%	942	906	4%	994	835	17%
Mercury	0.0050	0.0134	0.0115	NC	0.0137	0.0108	NC	0.0081	0.0069	NC	0.0134	0.0129	NC
Molybdenum	0.020	0.954	0.833	14%	0.18	0.159	12%	3.59	4.58	24%	2.71	3.64	29%
Nickel	0.20	2.07	1.97	5%	0.1	0.1	NC	0.25	0.1	NC	0.39	0.59	NC
Phosphorus	10	4020	3900	3%	1380	1400	1%	2450	2420	1%	4010	3300	19%
Potassium	20	17000	14200	18%	6230	6100	2%	18100	18300	1%	22300	19500	13%
Rubidium	0.050	4.13	4.39	6%	2.61	2.49	5%	31.2	17.7	55%	33.5	29.6	12%
Selenium	0.050	0.025	0.025	NC	0.025	0.025	NC	0.025	0.025	NC	0.025	0.025	NC
Silver	0.0050	0.0073	0.0054	NC	0.0069	0.0025	NC	0.0025	0.0025	NC	0.006	0.008	NC
Sodium	20	10	10	NC	10	10	NC	10	10	NC	10	10	NC
Strontium	0.050	156	149	5%	43.2	41.1	5%	29.9	37	21%	129	146	12%
Tellurium	0.020	0.01	0.01	NC	0.01	0.01	NC	0.01	0.01	NC	0.01	0.01	NC
Thallium	0.0020	0.001	0.001	NC	0.001	0.001	NC	0.0042	0.0043	NC	0.0053	0.0032	NC
Tin	0.10	0.05	0.05	NC	0.05	0.11	NC	0.1	0.18	NC	0.05	0.05	NC
Titanium	0.25	2.98	2.74	8%	2.3	1.61	35%	1.02	**1.49**	NC	1.03	1.12	NC
Uranium	0.0020	0.001	0.001	NC	0.001	0.001	NC	0.001	0.001	NC	0.001	0.001	NC
Vanadium	0.10	0.12	0.1	NC	0.05	0.05	NC	0.05	0.05	NC	0.05	0.05	NC
Zinc	0.50	42.4	37.1	13%	30	29	3%	36	38.3	6%	102	89.1	14%
Zirconium	0.20	0.1	0.1	NC	0.1	0.1	NC	0.1	0.1	NC	0.1	0.1	NC

Notes:

NC = Not calculated because measured values less than five times the method detection limit.

Unacceptable relative percent differences (RPDs) of 60% or higher are highlighted in grey and bolded based on CCME (2016).

Appendix G.3 RPD Calculations and Results for Surface Water Quality

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-01-11				2023-01-17				2023-02-04				2023-02-06			
			661-20				DC-05				DC-15				DC-10			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Physical Tests	pH	pH units	8.01	8.01	0.1	0%	7.96	7.88	0.1	1.01%	7.99	7.97	0.1	0.25%	7.95	7.94	0.1	0.13%
	Total Suspended Solids	mg/L	<3.0	<3.0	3	-	<3.0	<3.0	3	-	<3.0	<3.0	3	-	<3.0	<3.0	3	-
	Total Dissolved Solids	mg/L	94	96	13	2.11%	84	77	13	8.7%	79	78	13	1.27%	69	73	13	5.63%
	Conductivity	µS/cm	149	149	2	0%	115	116	2	0.87%	131	131	2	0%	116	116	2	0%
	Turbidity	NTU	0.61	0.64	0.1	4.8%	0.33	0.34	0.1	-	0.12	0.12	0.1	-	0.23	0.24	0.1	-
	Acidity (as $CaCO_3$)	mg/L	2.4	2.5	2	-	<2.0	<2.0	2	-	<2.0	<2.0	2	-	<2.0	<2.0	2	-
	Alkalinity, Total (as $CaCO_3$)	mg/L	76.5	76.2	1	0.39%	56.8	57.2	1	0.7%	65.2	66.2	1	1.52%	56.2	56.2	1	0%
	Hardness (as $CaCO_3$)-Total	mg/L	69.8	71.4	0.6	2.27%	49.1	48.8	0.6	0.61%	57.5	57.6	0.6	0.17%	48.2	48.0	0.6	0.42%
	Hardness (as $CaCO_3$)-Dissolved	mg/L	64.6	66.2	0.6	2.45%	47.8	48.4	0.6	1.25%	54.7	56.2	0.6	2.71%	50.7	50.1	0.6	1.19%
Anions and Nutrients	Bromide (Br)	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Chloride (Cl)	mg/L	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-
	Fluoride (F)	mg/L	0.056	0.056	0.02	-	0.040	0.040	0.02	-	0.049	0.053	0.02	-	0.045	0.045	0.02	-
	Sulfate (SO4)	mg/L	2.48	2.47	0.3	0.4%	3.18	3.23	0.3	1.56%	3.28	3.29	0.3	0.3%	3.35	3.33	0.3	0.6%
	Total Kjeldahl Nitrogen	mg/L	0.088	0.085	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Ammonia, Total (as N)	mg/L	0.0072	0.0075	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Nitrate (as N)	mg/L	0.0783	0.0782	0.005	0.13%	0.0392	0.0394	0.005	0.51%	0.0361	0.0379	0.005	4.86%	0.0493	0.0502	0.005	1.81%
	Nitrite (as N)	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Orthophosphate-Dissolved (as P)	mg/L	0.0233	0.0234	0.001	0.43%	0.0075	0.0064	0.001	15.83%	0.0062	0.0064	0.001	3.17%	0.0068	0.0069	0.001	1.46%
	Total Phosphate (as P)	mg/L	0.0284	0.0287	0.002	1.05%	0.0083	0.0081	0.002	-	0.0080	0.0081	0.002	-	0.0088	0.0088	0.002	-
Cyanides	Cyanide, Total	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Cyanide, Weak Acid Diss	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Thiocyanate	mg/L	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-
Organic / Inorganic Carbon	Total Organic Carbon	mg/L	3.26	3.09	0.5	5.35%	1.87	1.95	0.5	-	1.70	1.61	0.5	-	1.94	1.92	0.5	-
	Dissolved Organic Carbon	mg/L	3.03	2.87	0.5	5.42%	1.98	1.90	0.5	-	1.87	2.11	0.5	-	1.75	1.77	0.5	-
Total Metals	Aluminum (Al)-Total	mg/L	0.0233	0.0222	0.003	4.84%	0.0126	0.0119	0.003	-	0.0092	0.0082	0.003	-	0.0138	0.0138	0.003	-
	Antimony (Sb)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Arsenic (As)-Total	mg/L	0.00093	0.00092	0.0001	1.08%	0.00058	0.00059	0.0001	1.71%	0.00059	0.00056	0.0001	5.22%	0.00054	0.00052	0.0001	3.77%
	Barium (Ba)-Total	mg/L	0.00694	0.00707	0.0001	1.86%	0.00773	0.00772	0.0001	0.13%	0.00883	0.00840	0.0001	4.99%	0.00794	0.00793	0.0001	0.13%
	Beryllium (Be)-Total	mg/L	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-
	Bismuth (Bi)-Total	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Boron (B)-Total	mg/L	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-
	Cadmium (Cd)-Total	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Calcium (Ca)-Total	mg/L	18.6	19.6	0.05	5.24%	14.9	14.8	0.05	0.67%	16.4	17.0	0.05	3.59%	14.2	14.2	0.05	0%
	Chromium (Cr)-Total	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Cobalt (Co)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Copper (Cu)-Total	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Iron (Fe)-Total	mg/L	0.183	0.186	0.01	1.63%	0.036	0.035	0.01	-	0.021	0.020	0.01	-	0.025	0.023	0.01	-
	Lead (Pb)-Total	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Lithium (Li)-Total	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Magnesium (Mg)-Total	mg/L	5.66	5.46	0.1	3.6%	2.89	2.89	0.1	0%	4.03	3.68	0.1	9.08%	3.10	3.06	0.1	1.3%

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-01-11				2023-01-17				2023-02-04				2023-02-06			
			661-20				DC-05				DC-15				DC-10			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Total Metals *(cont'd)*	Manganese (Mn)-Total	mg/L	0.00698	0.00728	0.0001	4.21%	0.00263	0.00251	0.0001	4.67%	0.00368	0.00441	0.0001	18.05%	0.00214	0.00208	0.0001	2.84%
	Mercury (Hg)-Total	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Molybdenum (Mo)-Total	mg/L	0.000913	0.000942	0.00005	3.13%	0.000969	0.000988	0.00005	1.94%	0.000952	0.000963	0.00005	1.15%	0.000986	0.000988	0.00005	0.2%
	Nickel (Ni)-Total	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Phosphorus (P)-Total	mg/L	<0.050	0.056	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	0.053	<0.050	0.05	-
	Potassium (K)-Total	mg/L	0.777	0.763	0.1	1.82%	0.492	0.491	0.1	-	0.581	0.544	0.1	6.58%	0.469	0.466	0.1	-
	Selenium (Se)-Total	mg/L	0.000091	0.000096	0.00005	-	0.000099	0.000081	0.00005	-	0.000060	0.000052	0.00005	-	0.000059	0.000066	0.00005	-
	Silicon (Si)-Total	mg/L	8.32	8.22	0.1	1.21%	6.40	6.38	0.1	0.31%	6.92	6.70	0.1	3.23%	6.37	6.42	0.1	0.78%
	Silver (Ag)-Total	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Sodium (Na)-Total	mg/L	4.85	4.76	0.05	1.87%	3.44	3.41	0.05	0.88%	3.83	3.60	0.05	6.19%	3.36	3.32	0.05	1.2%
	Strontium (Sr)-Total	mg/L	0.0947	0.0994	0.0002	4.84%	0.0955	0.0984	0.0002	2.99%	0.108	0.107	0.0002	0.93%	0.0947	0.0960	0.0002	1.36%
	Sulfur (S)-Total	mg/L	1.06	1.00	0.5	-	0.93	1.02	0.5	-	0.96	0.91	0.5	-	1.02	0.95	0.5	-
	Thallium (Tl)-Total	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Tin (Sn)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Titanium (Ti)-Total	mg/L	0.00060	0.00051	0.0003	-	<0.00030	<0.00030	0.0003	-	<0.00030	<0.00030	0.0003	-	<0.00030	<0.00030	0.0003	-
	Uranium (U)-Total	mg/L	0.000340	0.000354	0.00001	4.03%	0.000348	0.000350	0.00001	0.57%	0.000289	0.000291	0.00001	0.69%	0.000342	0.000344	0.00001	0.58%
	Vanadium (V)-Total	mg/L	0.00084	0.00079	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Zinc (Zn)-Total	mg/L	<0.0030	<0.0030	0.003	-	<0.0030	<0.0030	0.003	-	<0.0030	<0.0030	0.003	-	<0.0030	<0.0030	0.003	-
Dissolved Metals	Aluminum (Al)-Dissolved	mg/L	0.0097	0.0105	0.001	7.92%	0.0080	0.0089	0.001	10.65%	0.0054	0.0051	0.001	5.71%	0.0092	0.0091	0.001	1.09%
	Antimony (Sb)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Arsenic (As)-Dissolved	mg/L	0.00082	0.00084	0.0001	2.41%	0.00052	0.00053	0.0001	1.9%	0.00054	0.00055	0.0001	1.83%	0.00049	0.00052	0.0001	-
	Barium (Ba)-Dissolved	mg/L	0.00633	0.00642	0.0001	1.41%	0.00752	0.00786	0.0001	4.42%	0.00876	0.00848	0.0001	3.25%	0.00795	0.00779	0.0001	2.03%
	Beryllium (Be)-Dissolved	mg/L	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-
	Bismuth (Bi)-Dissolved	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Boron (B)-Dissolved	mg/L	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-
	Cadmium (Cd)-Dissolved	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Calcium (Ca)-Dissolved	mg/L	17.3	18.0	0.05	3.97%	14.7	14.8	0.05	0.68%	15.7	16.2	0.05	3.13%	15.2	15.0	0.05	1.32%
	Chromium (Cr)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Cobalt (Co)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Copper (Cu)-Dissolved	mg/L	<0.00020	<0.00020	0.0002	-	<0.00020	<0.00020	0.0002	-	<0.00020	<0.00020	0.0002	-	<0.00020	<0.00020	0.0002	-
	Iron (Fe)-Dissolved	mg/L	0.129	0.125	0.01	3.15%	0.024	0.024	0.01	-	<0.010	<0.010	0.01	-	0.015	0.015	0.01	-
	Lead (Pb)-Dissolved	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Lithium (Li)-Dissolved	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Magnesium (Mg)-Dissolved	mg/L	5.21	5.17	0.1	0.77%	2.69	2.77	0.1	2.93%	3.76	3.82	0.1	1.58%	3.10	3.07	0.1	0.97%
	Manganese (Mn)-Dissolved	mg/L	0.00398	0.00405	0.0001	1.74%	0.00198	0.00197	0.0001	0.51%	0.00270	0.00263	0.0001	2.63%	0.00179	0.00170	0.0001	5.16%
	Mercury (Hg)-Dissolved	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Molybdenum (Mo)-Dissolved	mg/L	0.000901	0.000899	0.00005	0.22%	0.000905	0.000964	0.00005	6.31%	0.000866	0.000861	0.00005	0.58%	0.000881	0.000858	0.00005	2.65%
	Nickel (Ni)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Phosphorus (P)-Dissolved	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Potassium (K)-Dissolved	mg/L	0.759	0.754	0.1	0.66%	0.485	0.485	0.1	-	0.568	0.552	0.1	2.86%	0.481	0.482	0.1	-

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-01-11				2023-01-17				2023-02-04				2023-02-06			
			661-20				DC-05				DC-15				DC-10			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Dissolved Metals *(cont'd)*	Selenium (Se)-Dissolved	mg/L	<0.000050	0.000073	0.00005	-	0.000078	0.000082	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	0.000062	0.00005	-
	Silicon (Si)-Dissolved	mg/L	7.95	8.07	0.05	1.5%	6.68	6.29	0.05	6.01%	6.56	6.35	0.05	3.25%	6.00	5.86	0.05	2.36%
	Silver (Ag)-Dissolved	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Sodium (Na)-Dissolved	mg/L	4.55	4.51	0.05	0.88%	3.29	3.38	0.05	2.7%	3.67	3.60	0.05	1.93%	3.60	3.50	0.05	2.82%
	Strontium (Sr)-Dissolved	mg/L	0.0929	0.0954	0.0002	2.66%	0.0945	0.0965	0.0002	2.09%	0.100	0.100	0.0002	0%	0.0959	0.0923	0.0002	3.83%
	Sulfur (S)-Dissolved	mg/L	0.78	0.62	0.5	-	0.98	0.85	0.5	-	0.86	0.83	0.5	-	1.11	1.33	0.5	-
	Thallium (Tl)-Dissolved	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Tin (Sn)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Titanium (Ti)-Dissolved	mg/L	<0.00030	<0.00030	0.0003	-	<0.00030	<0.00030	0.0003	-	<0.00030	<0.00030	0.0003	-	<0.00030	<0.00030	0.0003	-
	Uranium (U)-Dissolved	mg/L	0.000345	0.000355	0.00001	2.86%	0.000335	0.000332	0.00001	0.9%	0.000264	0.000265	0.00001	0.38%	0.000329	0.000336	0.00001	2.11%
	Vanadium (V)-Dissolved	mg/L	0.00068	0.00064	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Zinc (Zn)-Dissolved	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-02-09				2023-03-13				2023-04-12				2023-04-13			
			FC-01				CC-03				661-10				705-10			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Physical Tests	pH	pH units	7.76	7.77	0.1	0.13%	8.21	8.20	0.1	0.12%	7.79	7.82	0.1	0.38%	7.69	7.68	0.1	0.13%
	Total Suspended Solids	mg/L	<3.0	<3.0	3	-	<3.0	<3.0	3	-	<3.0	<3.0	3	-	<3.0	<3.0	3	-
	Total Dissolved Solids	mg/L	55	56	13	-	124	139	20	11.41%	73	64	13	-	56	54	13	-
	Conductivity	µS/cm	92.0	91.8	2	0.22%	206	206	2	0%	92.9	98.1	2	5.45%	67.7	65.5	2	3.3%
	Turbidity	NTU	<0.10	<0.10	0.1	-	0.70	0.68	0.1	2.9%	0.39	0.34	0.1	-	0.87	0.90	0.1	3.39%
	Acidity (as $CaCO_3$)	mg/L	<2.0	<2.0	2	-	<2.0	<2.0	2	-	<2.0	2.2	2	-	2.3	2.2	2	-
	Alkalinity, Total (as $CaCO_3$)	mg/L	44.4	44.2	1	0.45%	109	110	1	0.91%	45.3	44.7	1	1.33%	32.0	32.7	1	2.16%
	Hardness (as $CaCO_3$)-Total	mg/L	39.2	39.1	0.6	0.26%	96.9	98.5	0.6	1.64%	37.6	37.4	0.6	0.53%	27.7	28.0	0.6	1.08%
	Hardness (as $CaCO_3$)-Dissolved	mg/L	37.2	37.6	0.6	1.07%	95.4	96.1	0.6	0.73%	36.3	36.3	0.6	0%	27.9	27.7	0.6	0.72%
Anions and Nutrients	Bromide (Br)	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Chloride (Cl)	mg/L	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-
	Fluoride (F)	mg/L	0.024	0.024	0.02	-	0.070	0.069	0.02	-	0.053	0.051	0.02	-	0.028	0.031	0.02	-
	Sulfate (SO4)	mg/L	2.90	3.13	0.3	7.63%	3.75	3.74	0.3	0.27%	2.23	2.20	0.3	1.35%	1.83	1.73	0.3	5.62%
	Total Kjeldahl Nitrogen	mg/L	<0.050	<0.050	0.05	-	0.273	0.256	0.05	6.43%	0.065	0.069	0.05	-	0.191	0.194	0.05	-
	Ammonia, Total (as N)	mg/L	<0.0050	<0.0050	0.005	-	0.0294	0.0288	0.005	2.06%	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Nitrate (as N)	mg/L	0.0775	0.0784	0.005	1.15%	0.157	0.157	0.005	0%	0.0255	0.0260	0.005	1.94%	0.0333	0.0289	0.005	14.15%
	Nitrite (as N)	mg/L	<0.0010	<0.0010	0.001	-	0.0011	0.0012	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Orthophosphate-Dissolved (as P)	mg/L	0.0074	0.0073	0.001	1.36%	0.0115	0.0113	0.001	1.75%	0.0189	0.0171	0.001	10%	<0.0010	<0.0010	0.001	-
	Total Phosphate (as P)	mg/L	0.0080	0.0072	0.002	-	0.0156	0.0156	0.002	0%	0.0223	0.0226	0.002	1.34%	0.0061	0.0064	0.002	-
Cyanides	Cyanide, Total	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Cyanide, Weak Acid Diss	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Thiocyanate	mg/L	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-
Organic / Inorganic Carbon	Total Organic Carbon	mg/L	1.20	1.40	0.5	-	6.78	6.87	0.5	1.32%	2.72	2.56	0.5	6.06%	7.89	8.14	0.5	3.12%
	Dissolved Organic Carbon	mg/L	1.03	1.16	0.5	-	6.33	6.72	0.5	5.98%	2.85	2.78	0.5	2.49%	8.07	7.95	0.5	1.5%
Total Metals	Aluminum (Al)-Total	mg/L	0.0084	0.0081	0.003	-	0.0151	0.0171	0.003	12.42%	0.0406	0.0370	0.003	9.28%	0.106	0.106	0.003	0%
	Antimony (Sb)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Arsenic (As)-Total	mg/L	0.00090	0.00088	0.0001	2.25%	0.00055	0.00057	0.0001	3.57%	0.00097	0.00094	0.0001	3.14%	0.00022	0.00019	0.0001	-
	Barium (Ba)-Total	mg/L	0.00442	0.00428	0.0001	3.22%	0.00915	0.00929	0.0001	1.52%	0.00450	0.00444	0.0001	1.34%	0.00976	0.00954	0.0001	2.28%
	Beryllium (Be)-Total	mg/L	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-
	Bismuth (Bi)-Total	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Boron (B)-Total	mg/L	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-
	Cadmium (Cd)-Total	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	0.0000065	0.0000056	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Calcium (Ca)-Total	mg/L	13.3	13.3	0.05	0%	26.8	27.2	0.05	1.48%	10.7	10.6	0.05	0.94%	8.37	8.53	0.05	1.89%
	Chromium (Cr)-Total	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Cobalt (Co)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Copper (Cu)-Total	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	0.00054	<0.00050	0.0005	-
	Iron (Fe)-Total	mg/L	<0.010	<0.010	0.01	-	0.085	0.087	0.01	2.33%	0.088	0.086	0.01	2.3%	0.143	0.146	0.01	2.08%
	Lead (Pb)-Total	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Lithium (Li)-Total	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Magnesium (Mg)-Total	mg/L	1.46	1.44	0.1	1.38%	7.29	7.43	0.1	1.9%	2.64	2.65	0.1	0.38%	1.66	1.64	0.1	1.21%

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-02-09				2023-03-13				2023-04-12				2023-04-13			
			FC-01				CC-03				661-10				705-10			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Total Metals *(cont'd)*	Manganese (Mn)-Total	mg/L	0.00014	0.00011	0.0001	-	0.0162	0.0172	0.0001	5.99%	0.00751	0.00704	0.0001	6.46%	0.00442	0.00437	0.0001	1.14%
	Mercury (Hg)-Total	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Molybdenum (Mo)-Total	mg/L	0.00102	0.000993	0.00005	2.68%	0.000760	0.000776	0.00005	2.08%	0.000657	0.000678	0.00005	3.15%	0.000423	0.000388	0.00005	8.63%
	Nickel (Ni)-Total	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Phosphorus (P)-Total	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Potassium (K)-Total	mg/L	0.417	0.410	0.1	-	1.12	1.14	0.1	1.77%	0.521	0.517	0.1	0.77%	0.371	0.350	0.1	-
	Selenium (Se)-Total	mg/L	0.000075	0.000082	0.00005	-	<0.000050	0.000052	0.00005	-	0.000055	0.000067	0.00005	-	<0.000050	<0.000050	0.00005	-
	Silicon (Si)-Total	mg/L	5.66	5.45	0.1	3.78%	7.38	7.42	0.1	0.54%	7.64	7.66	0.1	0.26%	4.40	4.52	0.1	2.69%
	Silver (Ag)-Total	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Sodium (Na)-Total	mg/L	2.73	2.60	0.05	4.88%	4.41	4.63	0.05	4.87%	3.54	3.56	0.05	0.56%	2.46	2.45	0.05	0.41%
	Strontium (Sr)-Total	mg/L	0.0632	0.0624	0.0002	1.27%	0.118	0.119	0.0002	0.84%	0.0657	0.0677	0.0002	3%	0.0570	0.0574	0.0002	0.7%
	Sulfur (S)-Total	mg/L	1.00	0.84	0.5	-	0.93	1.13	0.5	-	0.70	0.58	0.5	-	0.58	0.65	0.5	-
	Thallium (Tl)-Total	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Tin (Sn)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Titanium (Ti)-Total	mg/L	<0.00030	<0.00030	0.0003	-	0.00071	0.00077	0.0003	-	0.00066	0.00068	0.0003	-	0.00316	0.00298	0.0003	5.86%
	Uranium (U)-Total	mg/L	0.000099	0.000096	0.00001	3.08%	0.000136	0.000135	0.00001	0.74%	0.000139	0.000138	0.00001	0.72%	0.000160	0.000162	0.00001	1.24%
	Vanadium (V)-Total	mg/L	0.00052	0.00055	0.0005	-	<0.00050	<0.00050	0.0005	-	0.00108	0.00105	0.0005	-	<0.00050	<0.00050	0.0005	-
	Zinc (Zn)-Total	mg/L	<0.0030	<0.0030	0.003	-	<0.0030	<0.0030	0.003	-	<0.0030	<0.0030	0.003	-	<0.0030	<0.0030	0.003	-
Dissolved Metals	Aluminum (Al)-Dissolved	mg/L	0.0061	0.0054	0.001	12.17%	0.0023	0.0025	0.001	-	0.0239	0.0234	0.001	2.11%	0.0712	0.0691	0.001	2.99%
	Antimony (Sb)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Arsenic (As)-Dissolved	mg/L	0.00097	0.00088	0.0001	9.73%	0.00057	0.00054	0.0001	5.41%	0.00083	0.00086	0.0001	3.55%	0.00017	0.00018	0.0001	-
	Barium (Ba)-Dissolved	mg/L	0.00453	0.00442	0.0001	2.46%	0.00877	0.00892	0.0001	1.7%	0.00434	0.00439	0.0001	1.15%	0.00930	0.00905	0.0001	2.72%
	Beryllium (Be)-Dissolved	mg/L	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-
	Bismuth (Bi)-Dissolved	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Boron (B)-Dissolved	mg/L	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-
	Cadmium (Cd)-Dissolved	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	0.0000061	0.0000062	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Calcium (Ca)-Dissolved	mg/L	12.4	12.7	0.05	2.39%	26.0	26.2	0.05	0.77%	10.4	10.4	0.05	0%	8.42	8.41	0.05	0.12%
	Chromium (Cr)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Cobalt (Co)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Copper (Cu)-Dissolved	mg/L	<0.00020	<0.00020	0.0002	-	<0.00020	<0.00020	0.0002	-	<0.00020	<0.00020	0.0002	-	0.00044	0.00044	0.0002	-
	Iron (Fe)-Dissolved	mg/L	<0.010	<0.010	0.01	-	0.038	0.039	0.01	-	0.055	0.055	0.01	0%	0.111	0.112	0.01	0.9%
	Lead (Pb)-Dissolved	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Lithium (Li)-Dissolved	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Magnesium (Mg)-Dissolved	mg/L	1.51	1.44	0.1	4.75%	7.41	7.45	0.1	0.54%	2.50	2.52	0.1	0.8%	1.68	1.63	0.1	3.02%
	Manganese (Mn)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	0.00615	0.00630	0.0001	2.41%	0.00544	0.00561	0.0001	3.08%	0.00341	0.00340	0.0001	0.29%
	Mercury (Hg)-Dissolved	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Molybdenum (Mo)-Dissolved	mg/L	0.000881	0.000912	0.00005	3.46%	0.000772	0.000755	0.00005	2.23%	0.000626	0.000650	0.00005	3.76%	0.000394	0.000396	0.00005	0.51%
	Nickel (Ni)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Phosphorus (P)-Dissolved	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Potassium (K)-Dissolved	mg/L	0.433	0.408	0.1	-	1.11	1.12	0.1	0.9%	0.508	0.521	0.1	2.53%	0.361	0.347	0.1	-

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-02-09				2023-03-13				2023-04-12				2023-04-13			
			FC-01				CC-03				661-10				705-10			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Dissolved Metals *(cont'd)*	Selenium (Se)-Dissolved	mg/L	<0.000050	<0.000100	00005, 0.00(	-	0.000062	<0.000050	0.00005	-	0.000060	0.000054	0.00005	-	0.000056	<0.000050	0.00005	-
	Silicon (Si)-Dissolved	mg/L	5.25	5.30	0.05	0.95%	7.13	7.28	0.05	2.08%	7.66	7.64	0.05	0.26%	4.27	4.61	0.05	7.66%
	Silver (Ag)-Dissolved	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Sodium (Na)-Dissolved	mg/L	2.73	2.58	0.05	5.65%	4.32	4.39	0.05	1.61%	3.61	3.53	0.05	2.24%	2.35	2.44	0.05	3.76%
	Strontium (Sr)-Dissolved	mg/L	0.0543	0.0548	0.0002	0.92%	0.113	0.112	0.0002	0.89%	0.0651	0.0663	0.0002	1.83%	0.0587	0.0576	0.0002	1.89%
	Sulfur (S)-Dissolved	mg/L	0.91	0.77	0.5	-	1.12	1.21	0.5	-	0.62	0.61	0.5	-	0.63	0.56	0.5	-
	Thallium (Tl)-Dissolved	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Tin (Sn)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Titanium (Ti)-Dissolved	mg/L	<0.00030	<0.00030	0.0003	-	<0.00030	<0.00030	0.0003	-	0.00031	0.00033	0.0003	-	0.00249	0.00235	0.0003	5.79%
	Uranium (U)-Dissolved	mg/L	0.000096	0.000093	0.00001	3.17%	0.000133	0.000134	0.00001	0.75%	0.000131	0.000136	0.00001	3.75%	0.000162	0.000158	0.00001	2.5%
	Vanadium (V)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	0.00094	0.00095	0.0005	-	<0.00050	<0.00050	0.0005	-
	Zinc (Zn)-Dissolved	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	0.0012	0.0012	0.001	-	<0.0010	<0.0010	0.001	-

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-05-01				2023-05-09				2023-05-11				2023-05-17			
			CC-03				661-03				CC-15				CC-40			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Physical Tests	pH	pH units	7.64	7.66	0.1	0.26%	7.22	7.21	0.1	0.14%	7.84	7.85	0.1	0.13%	7.82	7.82	0.1	0%
	Total Suspended Solids	mg/L	21.7	19.5	3	10.68%	3.4	7.0	3	-	15.3	13.7	3	-	17.0	17.6	3	3.47%
	Total Dissolved Solids	mg/L	91	92	13	1.09%	78	71	10	9.4%	88	89	13	1.13%	75	73	13	2.7%
	Conductivity	µS/cm	97.2	98.3	2	1.13%	43.2	42.4	2	1.87%	98.2	99.2	2	1.01%	97.4	96.4	2	1.03%
	Turbidity	NTU	7.18	8.31	0.1	14.59%	0.72	0.97	0.1	29.59%	3.76	3.79	0.1	0.79%	4.36	4.76	0.1	8.77%
	Acidity (as $CaCO_3$)	mg/L	2.5	2.3	2	-	2.7	2.6	2	-	<2.0	2.0	2	-	2.0	2.1	2	-
	Alkalinity, Total (as $CaCO_3$)	mg/L	45.7	46.9	1	2.59%	16.7	16.9	1	1.19%	48.5	47.6	1	1.87%	48.3	47.9	1	0.83%
	Hardness (as $CaCO_3$)-Total	mg/L	47.1	46.3	0.6	1.71%	20.3	20.5	0.6	0.98%	45.2	44.6	0.6	1.34%	49.0	47.4	0.6	3.32%
	Hardness (as $CaCO_3$)-Dissolved	mg/L	45.4	45.1	0.6	0.66%	20.7	20.6	0.6	0.48%	45.6	44.9	0.6	1.55%	44.5	44.4	0.6	0.22%
Anions and Nutrients	Bromide (Br)	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Chloride (Cl)	mg/L	0.54	0.57	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-
	Fluoride (F)	mg/L	0.044	0.043	0.02	-	0.039	0.040	0.02	-	0.050	0.051	0.02	-	0.042	0.042	0.02	-
	Sulfate (SO4)	mg/L	2.92	2.90	0.3	0.69%	0.43	0.44	0.3	-	3.34	3.38	0.3	1.19%	2.76	2.14	0.3	25.31%
	Total Kjeldahl Nitrogen	mg/L	0.584	0.587	0.05	0.51%	0.497	0.517	0.05	3.94%	0.351	0.347	0.05	1.15%	0.486	0.431	0.05	12%
	Ammonia, Total (as N)	mg/L	0.0271	0.0258	0.005	4.91%	<0.0050	0.0052	0.005	-	0.0060	0.0061	0.005	-	0.0082	0.0071	0.005	-
	Nitrate (as N)	mg/L	0.0465	0.0489	0.005	5.03%	0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Nitrite (as N)	mg/L	0.0012	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Orthophosphate-Dissolved (as P)	mg/L	0.0066	0.0069	0.001	4.44%	0.0016	<0.0010	0.001	-	0.0012	0.0010	0.001	-	0.0018	0.0019	0.001	-
	Total Phosphate (as P)	mg/L	0.0602	0.0608	0.002	0.99%	0.0209	0.0208	0.002	0.48%	0.0306	0.0343	0.002	11.4%	0.0315	0.0321	0.002	1.89%
Cyanides	Cyanide, Total	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Cyanide, Weak Acid Diss	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Thiocyanate	mg/L	<0.50	<0.50	0.5	-	0.71	0.54	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-
Organic / Inorganic Carbon	Total Organic Carbon	mg/L	15.5	15.6	0.5	0.64%	23.6	22.6	0.5	4.33%	12.0	11.2	0.5	6.9%	11.3	11.1	0.5	1.79%
	Dissolved Organic Carbon	mg/L	15.1	15.1	0.5	0%	22.4	22.6	0.5	0.89%	12.0	11.4	0.5	5.13%	9.87	11.6	0.5	16.12%
Total Metals	Aluminum (Al)-Total	mg/L	0.535	0.522	0.003	2.46%	0.250	0.237	0.003	5.34%	0.257	0.261	0.003	1.54%	0.267	0.270	0.003	1.12%
	Antimony (Sb)-Total	mg/L	0.00012	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Arsenic (As)-Total	mg/L	0.00066	0.00067	0.0001	1.5%	0.00030	0.00032	0.0001	-	0.00068	0.00073	0.0001	7.09%	0.00066	0.00068	0.0001	2.99%
	Barium (Ba)-Total	mg/L	0.0104	0.00989	0.0001	5.03%	0.00493	0.00475	0.0001	3.72%	0.00856	0.00848	0.0001	0.94%	0.00907	0.00916	0.0001	0.99%
	Beryllium (Be)-Total	mg/L	0.000024	0.000023	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	0.000025	0.00002	-
	Bismuth (Bi)-Total	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Boron (B)-Total	mg/L	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-
	Cadmium (Cd)-Total	mg/L	0.0000095	0.0000055	0.000005	-	0.0000064	<0.0000050	0.000005	-	0.0000052	0.0000050	0.000005	-	0.0000062	0.0000055	0.000005	-
	Calcium (Ca)-Total	mg/L	12.7	12.7	0.05	0%	5.45	5.48	0.05	0.55%	13.0	12.9	0.05	0.77%	14.4	13.8	0.05	4.26%
	Chromium (Cr)-Total	mg/L	0.00068	0.00070	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Cobalt (Co)-Total	mg/L	0.00025	0.00025	0.0001	-	<0.00010	<0.00010	0.0001	-	0.00011	0.00012	0.0001	-	0.00016	0.00016	0.0001	-
	Copper (Cu)-Total	mg/L	0.00106	0.00114	0.0005	-	0.00094	0.00096	0.0005	-	0.00079	0.00081	0.0005	-	0.00087	0.00089	0.0005	-
	Iron (Fe)-Total	mg/L	0.812	0.787	0.01	3.13%	0.212	0.205	0.01	3.36%	0.331	0.333	0.01	0.6%	0.522	0.522	0.01	0%
	Lead (Pb)-Total	mg/L	0.000122	0.000110	0.00005	-	<0.000050	<0.000050	0.00005	-	0.000085	0.000100	0.00005	-	0.000090	0.000086	0.00005	-
	Lithium (Li)-Total	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Magnesium (Mg)-Total	mg/L	3.74	3.55	0.1	5.21%	1.63	1.65	0.1	1.22%	3.09	3.02	0.1	2.29%	3.16	3.14	0.1	0.63%

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-05-01				2023-05-09				2023-05-11				2023-05-17			
			CC-03				661-03				CC-15				CC-40			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Total Metals *(cont'd)*	Manganese (Mn)-Total	mg/L	0.114	0.106	0.0001	7.27%	0.0148	0.0119	0.0001	21.72%	0.0200	0.0198	0.0001	1.01%	0.0490	0.0480	0.0001	2.06%
	Mercury (Hg)-Total	mg/L	0.0000054	0.0000053	0.000005	-	0.0000101	0.0000094	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Molybdenum (Mo)-Total	mg/L	0.000500	0.000492	0.00005	1.61%	0.000150	0.000156	0.00005	-	0.000553	0.000527	0.00005	4.81%	0.000529	0.000521	0.00005	1.52%
	Nickel (Ni)-Total	mg/L	0.00091	0.00090	0.0005	-	<0.00050	<0.00050	0.0005	-	0.00062	0.00052	0.0005	-	0.00058	0.00061	0.0005	-
	Phosphorus (P)-Total	mg/L	0.077	0.083	0.05	-	<0.050	<0.050	0.05	-	<0.050	0.050	0.05	-	<0.050	<0.050	0.05	-
	Potassium (K)-Total	mg/L	1.32	1.30	0.1	1.53%	0.491	0.506	0.1	-	0.841	0.829	0.1	1.44%	0.755	0.750	0.1	0.66%
	Selenium (Se)-Total	mg/L	0.000076	0.000080	0.00005	-	0.000090	<0.000050	0.00005	-	0.000074	0.000088	0.00005	-	0.000054	0.000094	0.00005	-
	Silicon (Si)-Total	mg/L	5.50	5.66	0.1	2.87%	5.31	5.28	0.1	0.57%	4.90	4.85	0.1	1.03%	5.19	5.18	0.1	0.19%
	Silver (Ag)-Total	mg/L	<0.000010	<0.000010	0.00001	-	0.000012	0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Sodium (Na)-Total	mg/L	2.44	2.43	0.05	0.41%	2.38	2.28	0.05	4.29%	2.55	2.56	0.05	0.39%	2.74	2.83	0.05	3.23%
	Strontium (Sr)-Total	mg/L	0.0570	0.0551	0.0002	3.39%	0.0339	0.0335	0.0002	1.19%	0.0711	0.0713	0.0002	0.28%	0.0721	0.0729	0.0002	1.1%
	Sulfur (S)-Total	mg/L	1.08	1.10	0.5	-	<0.50	<0.50	0.5	-	1.06	1.07	0.5	-	0.80	0.95	0.5	-
	Thallium (Tl)-Total	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Tin (Sn)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Titanium (Ti)-Total	mg/L	0.0191	0.0203	0.0003	6.09%	0.00342	0.00324	0.0003	5.41%	0.0108	0.0156	0.0003	36.36%	0.0108	0.0111	0.0003	2.74%
	Uranium (U)-Total	mg/L	0.000078	0.000073	0.00001	6.62%	0.000073	0.000067	0.00001	8.57%	0.000134	0.000136	0.00001	1.48%	0.000113	0.000103	0.00001	9.26%
	Vanadium (V)-Total	mg/L	0.00152	0.00150	0.0005	-	0.00075	0.00073	0.0005	-	0.00102	0.00111	0.0005	-	0.00120	0.00120	0.0005	-
	Zinc (Zn)-Total	mg/L	<0.0030	<0.0030	0.003	-	<0.0030	<0.0030	0.003	-	<0.0030	<0.0030	0.003	-	<0.0030	<0.0030	0.003	-
Dissolved Metals	Aluminum (Al)-Dissolved	mg/L	0.180	0.202	0.001	11.52%	0.188	0.187	0.001	0.53%	0.0572	0.0575	0.001	0.52%	0.0249	0.0225	0.001	10.13%
	Antimony (Sb)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Arsenic (As)-Dissolved	mg/L	0.00045	0.00044	0.0001	-	0.00026	0.00029	0.0001	-	0.00052	0.00053	0.0001	1.9%	0.00049	0.00048	0.0001	-
	Barium (Ba)-Dissolved	mg/L	0.00612	0.00618	0.0001	0.98%	0.00443	0.00443	0.0001	0%	0.00678	0.00665	0.0001	1.94%	0.00696	0.00698	0.0001	0.29%
	Beryllium (Be)-Dissolved	mg/L	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-
	Bismuth (Bi)-Dissolved	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Boron (B)-Dissolved	mg/L	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-
	Cadmium (Cd)-Dissolved	mg/L	<0.0000050	<0.0000050	0.000005	-	0.0000067	0.0000055	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Calcium (Ca)-Dissolved	mg/L	12.4	12.4	0.05	0%	5.68	5.67	0.05	0.18%	13.3	13.2	0.05	0.75%	12.9	12.9	0.05	0%
	Chromium (Cr)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Cobalt (Co)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Copper (Cu)-Dissolved	mg/L	0.00064	0.00067	0.0002	-	0.00085	0.00089	0.0002	-	0.00059	0.00056	0.0002	-	0.00058	0.00058	0.0002	-
	Iron (Fe)-Dissolved	mg/L	0.250	0.259	0.01	3.54%	0.139	0.136	0.01	2.18%	0.091	0.091	0.01	0%	0.108	0.103	0.01	4.74%
	Lead (Pb)-Dissolved	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Lithium (Li)-Dissolved	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Magnesium (Mg)-Dissolved	mg/L	3.52	3.44	0.1	2.3%	1.58	1.57	0.1	0.63%	3.02	2.91	0.1	3.71%	2.99	2.96	0.1	1.01%
	Manganese (Mn)-Dissolved	mg/L	0.0200	0.0206	0.0001	2.96%	0.00426	0.00418	0.0001	1.9%	0.00792	0.00772	0.0001	2.56%	0.0157	0.0155	0.0001	1.28%
	Mercury (Hg)-Dissolved	mg/L	<0.0000050	<0.0000050	0.000005	-	0.0000095	0.0000080	0.000005	-	0.0000073	0.0000055	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Molybdenum (Mo)-Dissolved	mg/L	0.000483	0.000484	0.00005	0.21%	0.000149	0.000151	0.00005	-	0.000538	0.000524	0.00005	2.64%	0.000506	0.000553	0.00005	8.88%
	Nickel (Ni)-Dissolved	mg/L	0.00050	0.00058	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Phosphorus (P)-Dissolved	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Potassium (K)-Dissolved	mg/L	1.26	1.28	0.1	1.57%	0.550	0.543	0.1	1.28%	0.780	0.793	0.1	1.65%	0.738	0.734	0.1	0.54%

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-05-01				2023-05-09				2023-05-11				2023-05-17			
			CC-03				661-03				CC-15				CC-40			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Dissolved Metals *(cont'd)*	Selenium (Se)-Dissolved	mg/L	0.000055	0.000064	0.00005	-	0.000052	0.000067	0.00005	-	0.000076	0.000067	0.00005	-	0.000071	<0.000050	0.00005	-
	Silicon (Si)-Dissolved	mg/L	4.91	4.94	0.05	0.61%	5.39	5.29	0.05	1.87%	4.68	4.68	0.05	0%	4.64	4.61	0.05	0.65%
	Silver (Ag)-Dissolved	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Sodium (Na)-Dissolved	mg/L	2.44	2.39	0.05	2.07%	2.10	2.23	0.05	6%	2.46	2.44	0.05	0.82%	2.64	2.60	0.05	1.53%
	Strontium (Sr)-Dissolved	mg/L	0.0537	0.0540	0.0002	0.56%	0.0334	0.0327	0.0002	2.12%	0.0670	0.0656	0.0002	2.11%	0.0680	0.0685	0.0002	0.73%
	Sulfur (S)-Dissolved	mg/L	0.90	0.79	0.5	-	<0.50	<0.50	0.5	-	1.07	1.03	0.5	-	0.89	0.90	0.5	-
	Thallium (Tl)-Dissolved	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Tin (Sn)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Titanium (Ti)-Dissolved	mg/L	0.00732	0.00774	0.0003	5.58%	0.00233	0.00226	0.0003	3.05%	0.00102	0.00122	0.0003	-	0.00045	0.00039	0.0003	-
	Uranium (U)-Dissolved	mg/L	0.000049	0.000050	0.00001	-	0.000059	0.000053	0.00001	10.71%	0.000108	0.000106	0.00001	1.87%	0.000096	0.000089	0.00001	7.57%
	Vanadium (V)-Dissolved	mg/L	0.00062	0.00065	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Zinc (Zn)-Dissolved	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-05-22				2023-05-30				2023-06-14				2023-06-21			
			661-01				CC-20				661-04				TC-01			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Physical Tests	pH	pH units	6.92	6.91	0.1	0.14%	7.93	7.97	0.1	0.5%	7.09	7.13	0.1	0.56%	8.08	8.07	0.1	0.12%
	Total Suspended Solids	mg/L	<3.0	<3.0	3	-	3.7	<3.0	3	-	<3.0	<3.0	3	-	<3.0	<3.0	3	-
	Total Dissolved Solids	mg/L	40	38	10	-	73	78	13	6.62%	61	59	13	-	106	120	13	12.39%
	Conductivity	µS/cm	19.1	19.0	2	0.52%	121	124	2	2.45%	58.0	57.6	2	0.69%	174	175	2	0.57%
	Turbidity	NTU	0.40	0.38	0.1	-	1.51	1.17	0.1	25.37%	0.28	0.28	0.1	-	0.51	0.44	0.1	-
	Acidity (as $CaCO_3$)	mg/L	3.0	2.9	2	-	<2.0	<2.0	2	-	<2.0	2.0	2	-	<2.0	<2.0	2	-
	Alkalinity, Total (as $CaCO_3$)	mg/L	7.4	7.3	1	1.36%	63.7	65.7	1	3.09%	30.1	30.3	1	0.66%	92.0	91.1	1	0.98%
	Hardness (as $CaCO_3$)-Total	mg/L	7.51	7.52	0.6	0.13%	57.5	57.9	0.6	0.69%	24.0	23.9	0.6	0.42%	83.1	83.6	0.6	0.6%
	Hardness (as $CaCO_3$)-Dissolved	mg/L	7.28	7.27	0.6	0.14%	57.2	57.0	0.6	0.35%	24.2	24.1	0.6	0.41%	94.5	92.4	0.6	2.25%
Anions and Nutrients	Bromide (Br)	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Chloride (Cl)	mg/L	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-
	Fluoride (F)	mg/L	0.027	0.023	0.02	-	0.050	0.048	0.02	-	0.040	0.040	0.02	-	0.045	0.042	0.02	-
	Sulfate (SO4)	mg/L	<0.30	<0.30	0.3	-	2.77	2.77	0.3	0%	1.58	1.61	0.3	1.88%	1.78	1.78	0.3	0%
	Total Kjeldahl Nitrogen	mg/L	0.272	0.258	0.05	5.28%	0.280	0.260	0.05	7.41%	0.125	0.120	0.05	-	0.168	0.170	0.05	-
	Ammonia, Total (as N)	mg/L	<0.0050	0.0051	0.005	-	0.0062	0.0061	0.005	-	<0.0050	<0.0050	0.005	-	0.0070	0.0083	0.005	-
	Nitrate (as N)	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	0.0138	0.0205	0.005	-
	Nitrite (as N)	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Orthophosphate-Dissolved (as P)	mg/L	<0.0010	<0.0010	0.001	-	0.0016	0.0014	0.001	-	0.0086	0.0080	0.001	7.23%	<0.0010	0.0010	0.001	-
	Total Phosphate (as P)	mg/L	0.0092	0.0090	0.002	-	0.0187	0.0196	0.002	4.7%	0.0163	0.0161	0.002	1.23%	0.0091	0.0093	0.002	-
Cyanides	Cyanide, Total	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Cyanide, Weak Acid Diss	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Thiocyanate	mg/L	0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-
Organic / Inorganic Carbon	Total Organic Carbon	mg/L	10.6	10.4	0.5	1.9%	8.47	8.59	0.5	1.41%	5.35	5.05	0.5	5.77%	2.64	2.89	0.5	9.04%
	Dissolved Organic Carbon	mg/L	10.8	10.4	0.5	3.77%	8.90	9.35	0.5	4.93%	5.15	5.16	0.5	0.19%	2.55	3.27	0.5	24.74%
Total Metals	Aluminum (Al)-Total	mg/L	0.145	0.143	0.003	1.39%	0.0510	0.0517	0.003	1.36%	0.0546	0.0540	0.003	1.1%	0.0077	0.0079	0.003	-
	Antimony (Sb)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Arsenic (As)-Total	mg/L	0.00064	0.00062	0.0001	3.17%	0.00061	0.00063	0.0001	3.23%	0.00113	0.00113	0.0001	0%	0.00066	0.00072	0.0001	8.7%
	Barium (Ba)-Total	mg/L	0.00241	0.00248	0.0001	2.86%	0.00696	0.00684	0.0001	1.74%	0.00384	0.00381	0.0001	0.78%	0.00940	0.00938	0.0001	0.21%
	Beryllium (Be)-Total	mg/L	0.000026	0.000027	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-
	Bismuth (Bi)-Total	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Boron (B)-Total	mg/L	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-
	Cadmium (Cd)-Total	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	0.0000189	0.0000180	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Calcium (Ca)-Total	mg/L	2.17	2.18	0.05	0.46%	16.2	16.5	0.05	1.83%	6.91	6.90	0.05	0.14%	27.3	27.5	0.05	0.73%
	Chromium (Cr)-Total	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Cobalt (Co)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Copper (Cu)-Total	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Iron (Fe)-Total	mg/L	0.150	0.149	0.01	0.67%	0.121	0.118	0.01	2.51%	0.052	0.053	0.01	1.9%	0.054	0.065	0.01	18.49%
	Lead (Pb)-Total	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Lithium (Li)-Total	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Magnesium (Mg)-Total	mg/L	0.507	0.505	0.1	0.4%	4.14	4.06	0.1	1.95%	1.64	1.62	0.1	1.23%	3.63	3.62	0.1	0.28%

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-05-22				2023-05-30				2023-06-14				2023-06-21			
			661-01				CC-20				661-04				TC-01			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Total Metals *(cont'd)*	Manganese (Mn)-Total	mg/L	0.00814	0.00838	0.0001	2.91%	0.0179	0.0177	0.0001	1.12%	0.00438	0.00447	0.0001	2.03%	0.0100	0.0108	0.0001	7.69%
	Mercury (Hg)-Total	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Molybdenum (Mo)-Total	mg/L	0.000117	0.000108	0.00005	-	0.000910	0.000915	0.00005	0.55%	0.000481	0.000450	0.00005	6.66%	0.000602	0.000572	0.00005	5.11%
	Nickel (Ni)-Total	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Phosphorus (P)-Total	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Potassium (K)-Total	mg/L	0.185	0.191	0.1	-	0.802	0.812	0.1	1.24%	0.485	0.492	0.1	-	0.634	0.659	0.1	3.87%
	Selenium (Se)-Total	mg/L	0.000052	0.000054	0.00005	-	0.000090	0.000070	0.00005	-	<0.000050	<0.000050	0.00005	-	0.000074	0.000068	0.00005	-
	Silicon (Si)-Total	mg/L	3.38	3.48	0.1	2.92%	5.13	5.44	0.1	5.87%	7.10	7.11	0.1	0.14%	4.69	4.92	0.1	4.79%
	Silver (Ag)-Total	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Sodium (Na)-Total	mg/L	1.43	1.40	0.05	2.12%	3.23	3.27	0.05	1.23%	2.65	2.64	0.05	0.38%	2.73	2.76	0.05	1.09%
	Strontium (Sr)-Total	mg/L	0.0173	0.0179	0.0002	3.41%	0.0889	0.0891	0.0002	0.22%	0.0479	0.0473	0.0002	1.26%	0.113	0.114	0.0002	0.88%
	Sulfur (S)-Total	mg/L	<0.50	<0.50	0.5	-	1.33	1.32	0.5	-	0.62	0.67	0.5	-	0.64	0.60	0.5	-
	Thallium (Tl)-Total	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Tin (Sn)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Titanium (Ti)-Total	mg/L	0.00106	0.00105	0.0003	-	0.00206	0.00194	0.0003	6%	0.00088	0.00074	0.0003	-	<0.00030	0.00033	0.0003	-
	Uranium (U)-Total	mg/L	0.000074	0.000069	0.00001	6.99%	0.000108	0.000107	0.00001	0.93%	0.000059	0.000061	0.00001	3.33%	0.000230	0.000222	0.00001	3.54%
	Vanadium (V)-Total	mg/L	<0.00050	<0.00050	0.0005	-	0.00063	0.00062	0.0005	-	0.00063	0.00064	0.0005	-	0.00078	0.00079	0.0005	-
	Zinc (Zn)-Total	mg/L	<0.0030	<0.0030	0.003	-	<0.0030	<0.0030	0.003	-	0.0053	0.0051	0.003	-	<0.0030	<0.0030	0.003	-
Dissolved Metals	Aluminum (Al)-Dissolved	mg/L	0.130	0.132	0.001	1.53%	0.0098	0.0081	0.001	18.99%	0.0414	0.0414	0.001	0%	0.0022	0.0024	0.001	-
	Antimony (Sb)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Arsenic (As)-Dissolved	mg/L	0.00055	0.00057	0.0001	3.57%	0.00056	0.00059	0.0001	5.22%	0.00107	0.00107	0.0001	0%	0.00064	0.00065	0.0001	1.55%
	Barium (Ba)-Dissolved	mg/L	0.00201	0.00214	0.0001	6.27%	0.00610	0.00623	0.0001	2.11%	0.00395	0.00381	0.0001	3.61%	0.00921	0.00909	0.0001	1.31%
	Beryllium (Be)-Dissolved	mg/L	0.000024	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-
	Bismuth (Bi)-Dissolved	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Boron (B)-Dissolved	mg/L	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-
	Cadmium (Cd)-Dissolved	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	0.0000155	0.0000132	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Calcium (Ca)-Dissolved	mg/L	2.04	2.05	0.05	0.49%	16.4	16.4	0.05	0%	7.02	7.03	0.05	0.14%	31.3	30.5	0.05	2.59%
	Chromium (Cr)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Cobalt (Co)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Copper (Cu)-Dissolved	mg/L	0.00036	0.00036	0.0002	-	0.00038	0.00036	0.0002	-	0.00029	0.00027	0.0002	-	0.00020	<0.00020	0.0002	-
	Iron (Fe)-Dissolved	mg/L	0.112	0.122	0.01	8.55%	0.051	0.050	0.01	1.98%	0.035	0.035	0.01	-	0.039	0.036	0.01	-
	Lead (Pb)-Dissolved	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Lithium (Li)-Dissolved	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Magnesium (Mg)-Dissolved	mg/L	0.530	0.523	0.1	1.33%	3.94	3.89	0.1	1.28%	1.62	1.60	0.1	1.24%	3.97	3.94	0.1	0.76%
	Manganese (Mn)-Dissolved	mg/L	0.00335	0.00347	0.0001	3.52%	0.0117	0.0117	0.0001	0%	0.00236	0.00237	0.0001	0.42%	0.00790	0.00729	0.0001	8.03%
	Mercury (Hg)-Dissolved	mg/L	0.0000051	0.0000052	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Molybdenum (Mo)-Dissolved	mg/L	0.000103	0.000103	0.00005	-	0.000573	0.000626	0.00005	8.84%	0.000504	0.000475	0.00005	5.92%	0.000583	0.000560	0.00005	4.02%
	Nickel (Ni)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Phosphorus (P)-Dissolved	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Potassium (K)-Dissolved	mg/L	0.156	0.158	0.1	-	0.754	0.759	0.1	0.66%	0.497	0.490	0.1	-	0.666	0.651	0.1	2.28%

Notes:
DL = Detection Limit
RPD = Relative Percent Difference.
"<" value is below the detection limit.
"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-05-22				2023-05-30				2023-06-14				2023-06-21			
			661-01				CC-20				661-04				TC-01			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Dissolved Metals *(cont'd)*	Selenium (Se)-Dissolved	mg/L	<0.000050	<0.000050	0.00005	-	0.000075	0.000058	0.00005	-	<0.000050	<0.000050	0.00005	-	0.000074	0.000078	0.00005	-
	Silicon (Si)-Dissolved	mg/L	3.30	3.30	0.05	0%	5.08	5.01	0.05	1.39%	6.99	7.15	0.05	2.26%	4.90	4.95	0.05	1.02%
	Silver (Ag)-Dissolved	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Sodium (Na)-Dissolved	mg/L	1.42	1.39	0.05	2.14%	2.93	2.90	0.05	1.03%	2.82	2.79	0.05	1.07%	2.77	2.77	0.05	0%
	Strontium (Sr)-Dissolved	mg/L	0.0161	0.0165	0.0002	2.45%	0.0831	0.0811	0.0002	2.44%	0.0480	0.0491	0.0002	2.27%	0.119	0.118	0.0002	0.84%
	Sulfur (S)-Dissolved	mg/L	<0.50	<0.50	0.5	-	1.17	1.02	0.5	-	0.51	0.65	0.5	-	0.61	0.67	0.5	-
	Thallium (Tl)-Dissolved	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Tin (Sn)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Titanium (Ti)-Dissolved	mg/L	<0.00060	0.00092	.0006, 0.000	-	<0.00030	<0.00030	0.0003	-	0.00042	0.00033	0.0003	-	<0.00030	<0.00030	0.0003	-
	Uranium (U)-Dissolved	mg/L	0.000068	0.000069	0.00001	1.46%	0.000093	0.000094	0.00001	1.07%	0.000060	0.000059	0.00001	1.68%	0.000209	0.000202	0.00001	3.41%
	Vanadium (V)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	0.00058	0.00056	0.0005	-	0.00071	0.00067	0.0005	-
	Zinc (Zn)-Dissolved	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	0.0047	0.0047	0.001	-	<0.0010	<0.0010	0.001	-

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-07-25				2023-08-14				2023-08-29				2023-08-31			
			DC-15				705-05				CC-30				CC-05			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Physical Tests	pH	pH units	7.59	7.57	0.1	0.26%	7.38	7.42	0.1	0.54%	8.12	8.12	0.1	0%	8.23	8.25	0.1	0.24%
	Total Suspended Solids	mg/L	9.4	9.6	3	-	<3.0	<3.0	3	-	<3.0	<3.0	3	-	<3.0	<3.0	3	-
	Total Dissolved Solids	mg/L	84	83	13	1.2%	30	36	10	-	100	96	13	4.08%	128	118	13	8.13%
	Conductivity	µS/cm	84.2	83.8	2	0.48%	47.2	46.9	2	0.64%	152	152	2	0%	195	194	2	0.51%
	Turbidity	NTU	2.45	1.94	0.1	23.23%	0.68	0.66	0.1	2.99%	1.04	1.00	0.1	3.92%	0.53	0.62	0.1	15.65%
	Acidity (as $CaCO_3$)	mg/L	2.0	2.1	2	-	2.2	2.1	2	-	<2.0	<2.0	2	-	<2.0	<2.0	2	-
	Alkalinity, Total (as $CaCO_3$)	mg/L	27.9	27.3	1	2.17%	23.4	23.3	1	0.43%	76.8	76.3	1	0.65%	106	107	1	0.94%
	Hardness (as $CaCO_3$)-Total	mg/L	35.2	34.4	0.6	2.3%	20.8	20.9	0.6	0.48%	71.2	69.7	0.6	2.13%	92.6	94.6	0.6	2.14%
	Hardness (as $CaCO_3$)-Dissolved	mg/L	34.7	34.9	0.6	0.57%	21.3	21.3	0.6	0%	71.2	69.5	0.6	2.42%	92.2	94.3	0.6	2.25%
Anions and Nutrients	Bromide (Br)	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Chloride (Cl)	mg/L	1.49	1.53	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-
	Fluoride (F)	mg/L	0.036	0.036	0.02	-	0.025	0.024	0.02	-	0.062	0.060	0.02	-	0.064	0.066	0.02	-
	Sulfate (SO4)	mg/L	9.21	9.33	0.3	1.29%	0.95	0.92	0.3	-	3.26	3.25	0.3	0.31%	2.51	2.51	0.3	0%
	Total Kjeldahl Nitrogen	mg/L	0.259	0.234	0.05	-	0.232	0.247	0.05	-	0.212	0.254	0.05	-	0.196	0.195	0.05	-
	Ammonia, Total (as N)	mg/L	0.0068	0.0108	0.005	-	<0.0050	<0.0050	0.005	-	0.0059	0.0057	0.005	-	0.0136	0.0128	0.005	-
	Nitrate (as N)	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	0.0334	0.0326	0.005	2.42%
	Nitrite (as N)	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Orthophosphate-Dissolved (as P)	mg/L	0.0029	0.0021	0.001	-	<0.0010	<0.0010	0.001	-	0.0031	0.0036	0.001	-	0.0171	0.0178	0.001	4.01%
	Total Phosphate (as P)	mg/L	0.0259	0.0247	0.002	4.74%	0.0098	0.0095	0.002	-	0.0107	0.0182	0.002	51.9%	0.0294	0.0324	0.002	9.71%
Cyanides	Cyanide, Total	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Cyanide, Weak Acid Diss	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Thiocyanate	mg/L	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-
Organic / Inorganic Carbon	Total Organic Carbon	mg/L	9.76	8.15	0.5	17.98%	8.64	8.60	0.5	0.46%	6.35	7.12	0.5	11.43%	6.04	5.06	0.5	17.66%
	Dissolved Organic Carbon	mg/L	8.46	9.79	0.5	14.58%	8.28	8.75	0.5	5.52%	6.62	7.22	0.5	8.67%	5.47	5.79	0.5	5.68%
Total Metals	Aluminum (Al)-Total	mg/L	0.220	0.224	0.003	1.8%	0.0665	0.0672	0.003	1.05%	0.0174	0.0297	0.003	52.23%	0.0353	0.134	0.003	116.6%
	Antimony (Sb)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Arsenic (As)-Total	mg/L	0.00080	0.00084	0.0001	4.88%	0.00034	0.00037	0.0001	-	0.00082	0.00083	0.0001	1.21%	0.00096	0.00098	0.0001	2.06%
	Barium (Ba)-Total	mg/L	0.0108	0.0111	0.0001	2.74%	0.00822	0.00819	0.0001	0.37%	0.00842	0.00862	0.0001	2.35%	0.00771	0.00794	0.0001	2.94%
	Beryllium (Be)-Total	mg/L	0.000021	<0.000020	0.00002	-	0.000025	0.000025	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-
	Bismuth (Bi)-Total	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Boron (B)-Total	mg/L	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-
	Cadmium (Cd)-Total	mg/L	0.0000109	0.0000201	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Calcium (Ca)-Total	mg/L	10.6	10.3	0.05	2.87%	6.59	6.64	0.05	0.76%	20.6	20.0	0.05	2.96%	25.4	26.1	0.05	2.72%
	Chromium (Cr)-Total	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Cobalt (Co)-Total	mg/L	0.00014	0.00015	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	0.00013	0.0001	-
	Copper (Cu)-Total	mg/L	0.00060	0.00102	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Iron (Fe)-Total	mg/L	0.264	0.261	0.01	1.14%	0.206	0.203	0.01	1.47%	0.279	0.289	0.01	3.52%	0.154	0.149	0.01	3.3%
	Lead (Pb)-Total	mg/L	0.000106	0.000139	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Lithium (Li)-Total	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Magnesium (Mg)-Total	mg/L	2.13	2.10	0.1	1.42%	1.06	1.06	0.1	0%	4.80	4.80	0.1	0%	7.09	7.15	0.1	0.84%

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-07-25				2023-08-14				2023-08-29				2023-08-31			
			DC-15				705-05				CC-30				CC-05			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Total Metals *(cont'd)*	Manganese (Mn)-Total	mg/L	0.0344	0.0342	0.0001	0.58%	0.0118	0.0129	0.0001	8.91%	0.0292	0.0275	0.0001	6%	0.0208	0.0162	0.0001	24.86%
	Mercury (Hg)-Total	mg/L	0.0000052	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Molybdenum (Mo)-Total	mg/L	0.000710	0.000472	0.00005	40.27%	0.000613	0.000622	0.00005	1.46%	0.00102	0.000986	0.00005	3.39%	0.00111	0.00115	0.00005	3.54%
	Nickel (Ni)-Total	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	0.00058	0.00053	0.0005	-
	Phosphorus (P)-Total	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Potassium (K)-Total	mg/L	0.836	0.841	0.1	0.6%	0.292	0.291	0.1	-	1.02	1.02	0.1	0%	1.00	1.00	0.1	0%
	Selenium (Se)-Total	mg/L	0.000065	0.000065	0.00005	-	<0.000050	<0.000050	0.00005	-	0.000058	<0.000050	0.00005	-	0.000074	0.000076	0.00005	-
	Silicon (Si)-Total	mg/L	6.44	6.39	0.1	0.78%	3.71	3.65	0.1	1.63%	4.15	4.13	0.1	0.48%	7.02	7.17	0.1	2.11%
	Silver (Ag)-Total	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Sodium (Na)-Total	mg/L	3.22	3.15	0.05	2.2%	1.84	1.84	0.05	0%	4.21	4.33	0.05	2.81%	4.70	4.73	0.05	0.64%
	Strontium (Sr)-Total	mg/L	0.0741	0.0745	0.0002	0.54%	0.0550	0.0548	0.0002	0.36%	0.111	0.107	0.0002	3.67%	0.118	0.122	0.0002	3.33%
	Sulfur (S)-Total	mg/L	3.60	3.60	0.5	0%	<0.50	<0.50	0.5	-	1.18	1.16	0.5	-	0.79	0.89	0.5	-
	Thallium (Tl)-Total	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Tin (Sn)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Titanium (Ti)-Total	mg/L	0.00612	0.00608	0.0003	0.66%	0.00114	0.00127	0.0003	-	0.00066	<0.00180	.0003, 0.001	-	0.00150	0.00275	0.0003	58.82%
	Uranium (U)-Total	mg/L	0.000131	0.000130	0.00001	0.77%	0.000175	0.000185	0.00001	5.56%	0.000140	0.000134	0.00001	4.38%	0.000279	0.000270	0.00001	3.28%
	Vanadium (V)-Total	mg/L	0.00094	0.00091	0.0005	-	<0.00050	<0.00050	0.0005	-	0.00064	0.00066	0.0005	-	0.00077	0.00077	0.0005	-
	Zinc (Zn)-Total	mg/L	<0.0030	<0.0030	0.003	-	<0.0030	<0.0030	0.003	-	<0.0030	<0.0030	0.003	-	<0.0030	<0.0030	0.003	-
Dissolved Metals	Aluminum (Al)-Dissolved	mg/L	0.0432	0.0414	0.001	4.26%	0.0468	0.0465	0.001	0.64%	0.0035	0.0036	0.001	-	0.0091	0.0088	0.001	3.35%
	Antimony (Sb)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Arsenic (As)-Dissolved	mg/L	0.00060	0.00058	0.0001	3.39%	0.00030	0.00032	0.0001	-	0.00072	0.00077	0.0001	6.71%	0.00090	0.00092	0.0001	2.2%
	Barium (Ba)-Dissolved	mg/L	0.00793	0.00832	0.0001	4.8%	0.00808	0.00771	0.0001	4.69%	0.00857	0.00834	0.0001	2.72%	0.00725	0.00730	0.0001	0.69%
	Beryllium (Be)-Dissolved	mg/L	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-
	Bismuth (Bi)-Dissolved	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Boron (B)-Dissolved	mg/L	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-
	Cadmium (Cd)-Dissolved	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Calcium (Ca)-Dissolved	mg/L	10.5	10.5	0.05	0%	6.80	6.79	0.05	0.15%	20.6	20.2	0.05	1.96%	24.9	25.8	0.05	3.55%
	Chromium (Cr)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Cobalt (Co)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Copper (Cu)-Dissolved	mg/L	0.00041	0.00047	0.0002	-	0.00036	0.00033	0.0002	-	0.00037	0.00034	0.0002	-	0.00021	0.00023	0.0002	-
	Iron (Fe)-Dissolved	mg/L	0.058	0.059	0.01	1.71%	0.158	0.159	0.01	0.63%	0.209	0.208	0.01	0.48%	0.097	0.097	0.01	0%
	Lead (Pb)-Dissolved	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Lithium (Li)-Dissolved	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Magnesium (Mg)-Dissolved	mg/L	2.06	2.10	0.1	1.92%	1.06	1.06	0.1	0%	4.79	4.64	0.1	3.18%	7.28	7.25	0.1	0.41%
	Manganese (Mn)-Dissolved	mg/L	0.00488	0.00500	0.0001	2.43%	0.00909	0.00914	0.0001	0.55%	0.0215	0.0212	0.0001	1.41%	0.00577	0.00567	0.0001	1.75%
	Mercury (Hg)-Dissolved	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Molybdenum (Mo)-Dissolved	mg/L	0.000515	0.000449	0.00005	13.69%	0.000572	0.000569	0.00005	0.53%	0.000961	0.000975	0.00005	1.45%	0.00110	0.00107	0.00005	2.76%
	Nickel (Ni)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Phosphorus (P)-Dissolved	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Potassium (K)-Dissolved	mg/L	0.782	0.804	0.1	2.77%	0.304	0.302	0.1	-	0.980	0.975	0.1	0.51%	1.01	1.01	0.1	0%

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-07-25				2023-08-14				2023-08-29				2023-08-31			
			DC-15				705-05				CC-30				CC-05			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Dissolved Metals *(cont'd)*	Selenium (Se)-Dissolved	mg/L	<0.000050	0.000064	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	0.000057	0.00005	-	0.000084	0.000068	0.00005	-
	Silicon (Si)-Dissolved	mg/L	6.18	6.04	0.05	2.29%	3.66	3.61	0.05	1.38%	4.22	4.23	0.05	0.24%	7.28	7.29	0.05	0.14%
	Silver (Ag)-Dissolved	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Sodium (Na)-Dissolved	mg/L	3.04	3.22	0.05	5.75%	1.85	1.85	0.05	0%	4.26	4.26	0.05	0%	5.01	5.00	0.05	0.2%
	Strontium (Sr)-Dissolved	mg/L	0.0723	0.0750	0.0002	3.67%	0.0538	0.0536	0.0002	0.37%	0.108	0.107	0.0002	0.93%	0.120	0.122	0.0002	1.65%
	Sulfur (S)-Dissolved	mg/L	3.49	3.49	0.5	0%	<0.50	<0.50	0.5	-	1.36	1.36	0.5	-	0.86	0.88	0.5	-
	Thallium (Tl)-Dissolved	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Tin (Sn)-Dissolved	mg/L	<0.00010	0.00018	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Titanium (Ti)-Dissolved	mg/L	0.00074	0.00077	0.0003	-	0.00078	0.00074	0.0003	-	<0.00030	<0.00030	0.0003	-	<0.00030	<0.00030	0.0003	-
	Uranium (U)-Dissolved	mg/L	0.000083	0.000077	0.00001	7.5%	0.000162	0.000164	0.00001	1.23%	0.000135	0.000135	0.00001	0%	0.000276	0.000275	0.00001	0.36%
	Vanadium (V)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	0.00054	0.00051	0.0005	-	0.00063	0.00065	0.0005	-
	Zinc (Zn)-Dissolved	mg/L	<0.0010	0.0022	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-09-12				2023-09-20				2023-10-04				2023-10-10			
			TC-05				DC-20				CC-20				661-03			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Physical Tests	pH	pH units	8.09	8.10	0.1	0.12%	8.04	8.05	0.1	0.12%	8.02	8.04	0.1	0.25%	7.86	7.87	0.1	0.13%
	Total Suspended Solids	mg/L	<3.0	<3.0	3	-	<3.0	<3.0	3	-	<3.0	<3.0	3	-	8.0	8.6	3	-
	Total Dissolved Solids	mg/L	121	116	13	4.22%	69	68	13	1.46%	90	84	13	6.9%	98	94	13	4.17%
	Conductivity	µS/cm	192	192	2	0%	108	108	2	0%	142	143	2	0.7%	136	135	2	0.74%
	Turbidity	NTU	1.06	0.92	0.1	14.14%	0.60	0.61	0.1	1.65%	1.01	0.95	0.1	6.12%	0.87	0.88	0.1	1.14%
	Acidity (as $CaCO_3$)	mg/L	<2.0	<2.0	2	-	<2.0	<2.0	2	-	<2.0	<2.0	2	-	<2.0	2.6	2	-
	Alkalinity, Total (as $CaCO_3$)	mg/L	99.1	99.5	1	0.4%	56.0	56.2	1	0.36%	73.1	72.6	1	0.69%	73.0	73.4	1	0.55%
	Hardness (as $CaCO_3$)-Total	mg/L	92.0	89.6	0.6	2.64%	50.8	51.5	0.6	1.37%	70.6	71.6	0.6	1.41%	63.2	64.2	0.6	1.57%
	Hardness (as $CaCO_3$)-Dissolved	mg/L	92.2	89.6	0.6	2.86%	50.8	50.7	0.6	0.2%	66.6	66.3	0.6	0.45%	61.7	61.6	0.6	0.16%
Anions and Nutrients	Bromide (Br)	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Chloride (Cl)	mg/L	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-
	Fluoride (F)	mg/L	0.063	0.068	0.02	-	0.046	0.045	0.02	-	0.060	0.060	0.02	-	0.058	0.063	0.02	-
	Sulfate (SO4)	mg/L	2.91	2.90	0.3	0.34%	2.32	2.28	0.3	1.74%	3.39	3.40	0.3	0.29%	1.28	1.26	0.3	-
	Total Kjeldahl Nitrogen	mg/L	0.159	0.165	0.05	-	0.081	0.081	0.05	-	0.208	0.208	0.05	-	0.281	0.384	0.05	30.98%
	Ammonia, Total (as N)	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	0.0055	0.0067	0.005	-	0.0071	0.0099	0.005	-
	Nitrate (as N)	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	0.0089	0.0050	0.005	-
	Nitrite (as N)	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Orthophosphate-Dissolved (as P)	mg/L	0.0014	0.0013	0.001	-	0.0032	0.0037	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Total Phosphate (as P)	mg/L	0.0106	0.0104	0.002	1.9%	0.0104	0.0106	0.002	1.9%	0.0118	0.0119	0.002	0.84%	0.0109	0.0130	0.002	17.57%
Cyanides	Cyanide, Total	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Cyanide, Weak Acid Diss	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Thiocyanate	mg/L	<0.50	<0.50	0.5	-	<5.00	<5.00	5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-
Organic / Inorganic Carbon	Total Organic Carbon	mg/L	4.79	5.03	0.5	4.89%	5.03	4.43	0.5	12.68%	6.08	6.18	0.5	1.63%	3.57	3.65	0.5	2.22%
	Dissolved Organic Carbon	mg/L	4.75	4.89	0.5	2.9%	3.57	3.45	0.5	3.42%	6.49	6.27	0.5	3.45%	2.96	2.54	0.5	15.27%
Total Metals	Aluminum (Al)-Total	mg/L	0.0220	0.0176	0.003	22.22%	0.0228	0.0220	0.003	3.57%	0.0142	0.0143	0.003	-	0.0267	0.0385	0.003	36.2%
	Antimony (Sb)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Arsenic (As)-Total	mg/L	0.00060	0.00056	0.0001	6.9%	0.00068	0.00070	0.0001	2.9%	0.00064	0.00064	0.0001	0%	0.00028	0.00032	0.0001	-
	Barium (Ba)-Total	mg/L	0.0124	0.0122	0.0001	1.63%	0.00916	0.00869	0.0001	5.27%	0.00841	0.00773	0.0001	8.43%	0.00834	0.00902	0.0001	7.83%
	Beryllium (Be)-Total	mg/L	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-
	Bismuth (Bi)-Total	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Boron (B)-Total	mg/L	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-
	Cadmium (Cd)-Total	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Calcium (Ca)-Total	mg/L	27.8	27.2	0.05	2.18%	14.8	14.9	0.05	0.67%	19.8	20.4	0.05	2.99%	16.8	17.1	0.05	1.77%
	Chromium (Cr)-Total	mg/L	0.00064	0.00095	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	0.00060	<0.00050	0.0005	-
	Cobalt (Co)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Copper (Cu)-Total	mg/L	<0.00050	0.00073	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	0.00077	0.0005	-
	Iron (Fe)-Total	mg/L	0.305	0.301	0.01	1.32%	0.282	0.279	0.01	1.07%	0.221	0.216	0.01	2.29%	0.111	0.160	0.01	36.16%
	Lead (Pb)-Total	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	0.000063	0.00005	-
	Lithium (Li)-Total	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Magnesium (Mg)-Total	mg/L	5.48	5.27	0.1	3.91%	3.36	3.47	0.1	3.22%	5.15	5.02	0.1	2.56%	5.16	5.23	0.1	1.35%

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-09-12				2023-09-20				2023-10-04				2023-10-10			
			TC-05				DC-20				CC-20				661-03			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Total Metals *(cont'd)*	Manganese (Mn)-Total	mg/L	0.0166	0.0153	0.0001	8.15%	0.0224	0.0217	0.0001	3.17%	0.0234	0.0232	0.0001	0.86%	0.0288	0.0408	0.0001	34.48%
	Mercury (Hg)-Total	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Molybdenum (Mo)-Total	mg/L	0.000756	0.000767	0.00005	1.44%	0.000823	0.000814	0.00005	1.1%	0.000748	0.000752	0.00005	0.53%	0.000363	0.000362	0.00005	0.28%
	Nickel (Ni)-Total	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Phosphorus (P)-Total	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Potassium (K)-Total	mg/L	0.777	0.762	0.1	1.95%	0.685	0.686	0.1	0.15%	0.906	0.890	0.1	1.78%	0.708	0.765	0.1	7.74%
	Selenium (Se)-Total	mg/L	0.000100	0.000080	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	0.000061	0.00005	-	<0.000050	<0.000050	0.00005	-
	Silicon (Si)-Total	mg/L	6.64	6.57	0.1	1.06%	6.14	6.29	0.1	2.41%	4.67	4.60	0.1	1.51%	9.63	9.75	0.1	1.24%
	Silver (Ag)-Total	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Sodium (Na)-Total	mg/L	4.11	4.12	0.05	0.24%	3.43	3.48	0.05	1.45%	4.01	3.90	0.05	2.78%	4.38	4.49	0.05	2.48%
	Strontium (Sr)-Total	mg/L	0.135	0.138	0.0002	2.2%	0.0943	0.0933	0.0002	1.07%	0.104	0.104	0.0002	0%	0.0958	0.0973	0.0002	1.55%
	Sulfur (S)-Total	mg/L	1.11	1.01	0.5	-	0.61	0.53	0.5	-	1.38	1.20	0.5	-	<0.50	<0.50	0.5	-
	Thallium (Tl)-Total	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Tin (Sn)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Titanium (Ti)-Total	mg/L	0.00059	0.00051	0.0003	-	0.00091	0.00093	0.0003	-	0.00036	0.00039	0.0003	-	0.00061	0.00072	0.0003	-
	Uranium (U)-Total	mg/L	0.000223	0.000223	0.00001	0%	0.000132	0.000131	0.00001	0.76%	0.000113	0.000110	0.00001	2.69%	0.000118	0.000125	0.00001	5.76%
	Vanadium (V)-Total	mg/L	0.00063	0.00057	0.0005	-	0.00050	0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Zinc (Zn)-Total	mg/L	<0.0030	<0.0030	0.003	-	<0.0030	<0.0030	0.003	-	<0.0030	<0.0030	0.003	-	<0.0030	0.0048	0.003	-
Dissolved Metals	Aluminum (Al)-Dissolved	mg/L	0.0084	0.0083	0.001	1.2%	0.0090	0.0090	0.001	0%	0.0040	0.0042	0.001	-	0.0101	0.0099	0.001	2%
	Antimony (Sb)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Arsenic (As)-Dissolved	mg/L	0.00051	0.00052	0.0001	1.94%	0.00065	0.00066	0.0001	1.53%	0.00060	0.00061	0.0001	1.65%	0.00025	0.00024	0.0001	-
	Barium (Ba)-Dissolved	mg/L	0.0122	0.0123	0.0001	0.82%	0.00901	0.00932	0.0001	3.38%	0.00788	0.00775	0.0001	1.66%	0.00814	0.00823	0.0001	1.1%
	Beryllium (Be)-Dissolved	mg/L	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-
	Bismuth (Bi)-Dissolved	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Boron (B)-Dissolved	mg/L	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-
	Cadmium (Cd)-Dissolved	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Calcium (Ca)-Dissolved	mg/L	27.7	26.8	0.05	3.3%	14.9	14.9	0.05	0%	19.0	19.1	0.05	0.52%	16.4	16.3	0.05	0.61%
	Chromium (Cr)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Cobalt (Co)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Copper (Cu)-Dissolved	mg/L	<0.00020	<0.00020	0.0002	-	0.00026	0.00026	0.0002	-	0.00036	0.00034	0.0002	-	<0.00020	<0.00020	0.0002	-
	Iron (Fe)-Dissolved	mg/L	0.234	0.232	0.01	0.86%	0.213	0.216	0.01	1.4%	0.138	0.139	0.01	0.72%	0.060	0.060	0.01	0%
	Lead (Pb)-Dissolved	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Lithium (Li)-Dissolved	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Magnesium (Mg)-Dissolved	mg/L	5.60	5.52	0.1	1.44%	3.30	3.28	0.1	0.61%	4.65	4.52	0.1	2.84%	5.05	5.08	0.1	0.59%
	Manganese (Mn)-Dissolved	mg/L	0.0133	0.0129	0.0001	3.05%	0.0172	0.0174	0.0001	1.16%	0.0203	0.0200	0.0001	1.49%	0.0267	0.0263	0.0001	1.51%
	Mercury (Hg)-Dissolved	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Molybdenum (Mo)-Dissolved	mg/L	0.000776	0.000762	0.00005	1.82%	0.000775	0.000768	0.00005	0.91%	0.000743	0.000720	0.00005	3.14%	0.00107	0.000352	0.00005	100.98%
	Nickel (Ni)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Phosphorus (P)-Dissolved	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Potassium (K)-Dissolved	mg/L	0.817	0.782	0.1	4.38%	0.747	0.758	0.1	1.46%	0.912	0.904	0.1	0.88%	0.713	0.712	0.1	0.14%

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-09-12				2023-09-20				2023-10-04				2023-10-10			
			TC-05				DC-20				CC-20				661-03			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Dissolved Metals *(cont'd)*	Selenium (Se)-Dissolved	mg/L	0.000085	0.000075	0.00005	-	0.000050	<0.000050	0.00005	-	0.000055	0.000058	0.00005	-	<0.000050	<0.000050	0.00005	-
	Silicon (Si)-Dissolved	mg/L	6.56	6.40	0.05	2.47%	6.40	6.35	0.05	0.78%	4.51	4.59	0.05	1.76%	9.42	9.36	0.05	0.64%
	Silver (Ag)-Dissolved	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Sodium (Na)-Dissolved	mg/L	4.11	4.09	0.05	0.49%	3.60	3.69	0.05	2.47%	3.86	3.76	0.05	2.62%	4.28	4.30	0.05	0.47%
	Strontium (Sr)-Dissolved	mg/L	0.139	0.137	0.0002	1.45%	0.0967	0.0975	0.0002	0.82%	0.100	0.100	0.0002	0%	0.0968	0.0964	0.0002	0.41%
	Sulfur (S)-Dissolved	mg/L	1.07	1.12	0.5	-	0.95	0.96	0.5	-	1.21	1.16	0.5	-	<0.50	<0.50	0.5	-
	Thallium (Tl)-Dissolved	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Tin (Sn)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Titanium (Ti)-Dissolved	mg/L	<0.00030	<0.00030	0.0003	-	<0.00030	<0.00030	0.0003	-	<0.00030	<0.00030	0.0003	-	<0.00030	<0.00030	0.0003	-
	Uranium (U)-Dissolved	mg/L	0.000229	0.000224	0.00001	2.21%	0.000131	0.000129	0.00001	1.54%	0.000114	0.000119	0.00001	4.29%	0.000109	0.000104	0.00001	4.69%
	Vanadium (V)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Zinc (Zn)-Dissolved	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-10-14				2023-10-17				2023-10-20				2023-10-23			
			DC-05				FC-01				DC-20				661-10			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Physical Tests	pH	pH units	7.73	7.72	0.1	0.13%	7.80	7.81	0.1	0.13%	7.81	7.81	0.1	0%	7.67	7.66	0.1	0.13%
	Total Suspended Solids	mg/L	<3.0	<3.0	3	-	<3.0	<3.0	3	-	10.0	<3.0	3	-	<3.0	<3.0	3	-
	Total Dissolved Solids	mg/L	63	67	13	-	56	54	13	-	75	81	13	7.69%	72	71	13	1.4%
	Conductivity	µS/cm	91.6	92.7	2	1.19%	75.9	76.1	2	0.26%	111	112	2	0.9%	79.4	79.3	2	0.13%
	Turbidity	NTU	2.14	2.21	0.1	3.22%	0.11	0.13	0.1	-	3.04	0.74	0.1	121.69%	0.78	0.77	0.1	1.29%
	Acidity (as $CaCO_3$)	mg/L	2.2	2.1	2	-	2.0	2.0	2	-	<2.0	<2.0	2	-	<2.0	<2.0	2	-
	Alkalinity, Total (as $CaCO_3$)	mg/L	45.6	45.2	1	0.88%	37.7	37.8	1	0.26%	56.4	56.4	1	0%	38.1	38.2	1	0.26%
	Hardness (as $CaCO_3$)-Total	mg/L	40.3	39.9	0.6	1%	32.4	33.6	0.6	3.64%	52.8	52.2	0.6	1.14%	34.9	33.8	0.6	3.2%
	Hardness (as $CaCO_3$)-Dissolved	mg/L	40.2	39.0	0.6	3.03%	32.3	33.4	0.6	3.35%	54.5	52.8	0.6	3.17%	35.7	35.4	0.6	0.84%
Anions and Nutrients	Bromide (Br)	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Chloride (Cl)	mg/L	0.56	0.55	0.5	-	<0.50	<0.50	0.5	-	0.50	0.50	0.5	-	0.80	0.80	0.5	-
	Fluoride (F)	mg/L	0.041	0.040	0.02	-	0.022	0.022	0.02	-	0.047	0.045	0.02	-	0.038	0.039	0.02	-
	Sulfate (SO4)	mg/L	2.77	2.75	0.3	0.72%	2.45	2.44	0.3	0.41%	2.79	2.80	0.3	0.36%	2.10	2.09	0.3	0.48%
	Total Kjeldahl Nitrogen	mg/L	0.079	0.086	0.05	-	<0.050	<0.050	0.05	-	0.095	0.096	0.05	-	0.130	0.155	0.05	-
	Ammonia, Total (as N)	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Nitrate (as N)	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Nitrite (as N)	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Orthophosphate-Dissolved (as P)	mg/L	0.0038	<0.0010	0.001	-	0.0011	<0.0010	0.001	-	0.0022	0.0030	0.001	-	0.0075	0.0073	0.001	2.7%
	Total Phosphate (as P)	mg/L	0.0097	0.0103	0.002	-	0.0062	0.0057	0.002	-	0.0096	0.0100	0.002	-	0.0147	0.0159	0.002	7.84%
Cyanides	Cyanide, Total	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Cyanide, Weak Acid Diss	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Thiocyanate	mg/L	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-
Organic / Inorganic Carbon	Total Organic Carbon	mg/L	4.72	4.51	0.5	4.55%	1.42	1.63	0.5	-	3.67	3.92	0.5	6.59%	5.14	5.58	0.5	8.21%
	Dissolved Organic Carbon	mg/L	5.39	4.43	0.5	19.55%	1.67	1.60	0.5	-	3.76	3.45	0.5	8.6%	5.27	6.00	0.5	12.95%
Total Metals	Aluminum (Al)-Total	mg/L	0.130	0.0959	0.003	30.19%	0.0262	0.0140	0.003	-	0.0266	0.0212	0.003	22.59%	0.0408	0.0346	0.003	16.45%
	Antimony (Sb)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Arsenic (As)-Total	mg/L	0.00071	0.00072	0.0001	1.4%	0.00089	0.00087	0.0001	2.27%	0.00064	0.00066	0.0001	3.08%	0.00094	0.00098	0.0001	4.17%
	Barium (Ba)-Total	mg/L	0.00930	0.00893	0.0001	4.06%	0.00404	0.00393	0.0001	2.76%	0.00940	0.00908	0.0001	3.46%	0.00446	0.00454	0.0001	1.78%
	Beryllium (Be)-Total	mg/L	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-
	Bismuth (Bi)-Total	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Boron (B)-Total	mg/L	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-
	Cadmium (Cd)-Total	mg/L	<0.0000050	<0.0000050	0.000005	-	0.0000059	0.0000051	0.000005	-	<0.0000050	<0.0000050	0.000005	-	0.0000133	0.0000127	0.000005	-
	Calcium (Ca)-Total	mg/L	12.2	12.1	0.05	0.82%	11.0	11.5	0.05	4.44%	14.9	14.7	0.05	1.35%	9.79	9.30	0.05	5.13%
	Chromium (Cr)-Total	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Cobalt (Co)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Copper (Cu)-Total	mg/L	0.00055	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Iron (Fe)-Total	mg/L	0.157	0.135	0.01	15.07%	0.013	<0.010	0.01	-	0.278	0.266	0.01	4.41%	0.196	0.187	0.01	4.7%
	Lead (Pb)-Total	mg/L	0.000061	0.000061	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Lithium (Li)-Total	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Magnesium (Mg)-Total	mg/L	2.38	2.36	0.1	0.84%	1.19	1.20	0.1	0.84%	3.80	3.77	0.1	0.79%	2.53	2.57	0.1	1.57%

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-10-14				2023-10-17				2023-10-20				2023-10-23			
			DC-05				FC-01				DC-20				661-10			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Total Metals *(cont'd)*	Manganese (Mn)-Total	mg/L	0.00499	0.00481	0.0001	3.67%	0.00059	0.00036	0.0001	-	0.0241	0.0196	0.0001	20.59%	0.00886	0.00746	0.0001	17.16%
	Mercury (Hg)-Total	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Molybdenum (Mo)-Total	mg/L	0.000808	0.000774	0.00005	4.3%	0.000715	0.000736	0.00005	2.89%	0.000827	0.000820	0.00005	0.85%	0.000576	0.000553	0.00005	4.07%
	Nickel (Ni)-Total	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Phosphorus (P)-Total	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Potassium (K)-Total	mg/L	0.634	0.608	0.1	4.19%	0.394	0.382	0.1	-	0.710	0.698	0.1	1.7%	0.512	0.511	0.1	0.2%
	Selenium (Se)-Total	mg/L	0.000075	0.000060	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	0.000051	0.00005	-
	Silicon (Si)-Total	mg/L	6.56	6.28	0.1	4.36%	5.14	5.06	0.1	1.57%	6.51	6.58	0.1	1.07%	7.55	7.36	0.1	2.55%
	Silver (Ag)-Total	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Sodium (Na)-Total	mg/L	3.28	3.25	0.05	0.92%	2.29	2.25	0.05	1.76%	3.88	3.81	0.05	1.82%	3.57	3.57	0.05	0%
	Strontium (Sr)-Total	mg/L	0.0861	0.0846	0.0002	1.76%	0.0503	0.0506	0.0002	0.59%	0.101	0.0995	0.0002	1.5%	0.0665	0.0658	0.0002	1.06%
	Sulfur (S)-Total	mg/L	0.54	<0.50	0.5	-	0.77	0.75	0.5	-	0.91	0.99	0.5	-	0.77	0.82	0.5	-
	Thallium (Tl)-Total	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Tin (Sn)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Titanium (Ti)-Total	mg/L	0.00332	0.00245	0.0003	30.16%	0.00067	0.00090	0.0003	-	0.00096	0.00063	0.0003	-	0.00090	0.00078	0.0003	-
	Uranium (U)-Total	mg/L	0.000209	0.000208	0.00001	0.48%	0.000054	0.000044	0.00001	-	0.000152	0.000146	0.00001	4.03%	0.000086	0.000082	0.00001	4.76%
	Vanadium (V)-Total	mg/L	0.00054	0.00054	0.0005	-	0.00055	0.00056	0.0005	-	0.00051	<0.00050	0.0005	-	0.00067	0.00067	0.0005	-
	Zinc (Zn)-Total	mg/L	<0.0030	<0.0030	0.003	-	<0.0030	<0.0030	0.003	-	<0.0030	<0.0030	0.003	-	<0.0030	<0.0030	0.003	-
Dissolved Metals	Aluminum (Al)-Dissolved	mg/L	0.0293	0.0328	0.001	11.27%	0.0102	0.0099	0.001	2.99%	0.0080	0.0089	0.001	10.65%	0.0267	0.0264	0.001	1.13%
	Antimony (Sb)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Arsenic (As)-Dissolved	mg/L	0.00068	0.00062	0.0001	9.23%	0.00083	0.00086	0.0001	3.55%	0.00059	0.00059	0.0001	0%	0.00090	0.00084	0.0001	6.9%
	Barium (Ba)-Dissolved	mg/L	0.00851	0.00830	0.0001	2.5%	0.00432	0.00408	0.0001	5.71%	0.00936	0.00922	0.0001	1.51%	0.00452	0.00457	0.0001	1.1%
	Beryllium (Be)-Dissolved	mg/L	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-
	Bismuth (Bi)-Dissolved	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Boron (B)-Dissolved	mg/L	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-
	Cadmium (Cd)-Dissolved	mg/L	<0.0000050	<0.0000050	0.000005	-	0.0000066	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	0.0000114	0.0000139	0.000005	-
	Calcium (Ca)-Dissolved	mg/L	12.0	11.6	0.05	3.39%	11.0	11.4	0.05	3.57%	15.3	14.8	0.05	3.32%	10.2	10.2	0.05	0%
	Chromium (Cr)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Cobalt (Co)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Copper (Cu)-Dissolved	mg/L	0.00026	0.00026	0.0002	-	<0.00020	0.00020	0.0002	-	0.00023	0.00023	0.0002	-	0.00026	0.00026	0.0002	-
	Iron (Fe)-Dissolved	mg/L	0.059	0.060	0.01	1.68%	<0.010	<0.010	0.01	-	0.192	0.197	0.01	2.57%	0.156	0.156	0.01	0%
	Lead (Pb)-Dissolved	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Lithium (Li)-Dissolved	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Magnesium (Mg)-Dissolved	mg/L	2.48	2.44	0.1	1.63%	1.18	1.19	0.1	0.84%	3.96	3.85	0.1	2.82%	2.48	2.42	0.1	2.45%
	Manganese (Mn)-Dissolved	mg/L	0.00283	0.00277	0.0001	2.14%	0.00024	0.00014	0.0001	-	0.0207	0.0205	0.0001	0.97%	0.00593	0.00593	0.0001	0%
	Mercury (Hg)-Dissolved	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Molybdenum (Mo)-Dissolved	mg/L	0.000777	0.000803	0.00005	3.29%	0.000647	0.000679	0.00005	4.83%	0.000792	0.000809	0.00005	2.12%	0.000557	0.000555	0.00005	0.36%
	Nickel (Ni)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Phosphorus (P)-Dissolved	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Potassium (K)-Dissolved	mg/L	0.620	0.619	0.1	0.16%	0.425	0.426	0.1	-	0.785	0.761	0.1	3.1%	0.548	0.545	0.1	0.55%

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-10-14				2023-10-17				2023-10-20				2023-10-23			
			DC-05				FC-01				DC-20				661-10			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Dissolved Metals *(cont'd)*	Selenium (Se)-Dissolved	mg/L	0.000063	0.000070	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Silicon (Si)-Dissolved	mg/L	6.17	6.07	0.05	1.63%	5.02	5.17	0.05	2.94%	6.51	6.66	0.05	2.28%	7.75	7.72	0.05	0.39%
	Silver (Ag)-Dissolved	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Sodium (Na)-Dissolved	mg/L	3.40	3.34	0.05	1.78%	2.39	2.40	0.05	0.42%	4.10	3.90	0.05	5%	3.51	3.44	0.05	2.01%
	Strontium (Sr)-Dissolved	mg/L	0.0818	0.0796	0.0002	2.73%	0.0502	0.0503	0.0002	0.2%	0.101	0.0991	0.0002	1.9%	0.0596	0.0646	0.0002	8.05%
	Sulfur (S)-Dissolved	mg/L	1.27	0.87	0.5	-	0.77	0.86	0.5	-	0.95	0.96	0.5	-	0.84	0.86	0.5	-
	Thallium (Tl)-Dissolved	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Tin (Sn)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Titanium (Ti)-Dissolved	mg/L	0.00072	0.00075	0.0003	-	<0.00030	<0.00030	0.0003	-	<0.00030	<0.00030	0.0003	-	0.00048	0.00052	0.0003	-
	Uranium (U)-Dissolved	mg/L	0.000199	0.000198	0.00001	0.5%	0.000049	0.000048	0.00001	-	0.000169	0.000166	0.00001	1.79%	0.000077	0.000077	0.00001	0%
	Vanadium (V)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	0.00054	0.00052	0.0005	-	<0.00050	<0.00050	0.0005	-	0.00062	0.00062	0.0005	-
	Zinc (Zn)-Dissolved	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	0.0025	0.001	-	0.0022	0.0022	0.001	-

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-10-24				2023-10-31				2023-11-02				2023-11-08			
			CC-40				705-10				661-20				661-05			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Physical Tests	pH	pH units	8.11	8.11	0.1	0%	7.58	7.75	0.1	2.22%	8.09	8.09	0.1	0%	7.78	7.79	0.1	0.13%
	Total Suspended Solids	mg/L	<3.0	<3.0	3	-	<3.0	<3.0	3	-	<3.0	<3.0	3	-	4.8	<3.0	3	-
	Total Dissolved Solids	mg/L	96	95	13	1.05%	44	46	13	-	86	97	13	12.02%	100	115	13	13.95%
	Conductivity	µS/cm	172	173	2	0.58%	72.0	84.6	2	16.09%	156	156	2	0%	95.8	96.5	2	0.73%
	Turbidity	NTU	1.83	1.90	0.1	3.75%	0.13	<0.10	0.1	-	0.63	0.63	0.1	0%	45.5	44.9	0.1	1.33%
	Acidity (as $CaCO_3$)	mg/L	<2.0	<2.0	2	-	2.1	<2.0	2	-	<2.0	<2.0	2	-	<2.0	<2.0	2	-
	Alkalinity, Total (as $CaCO_3$)	mg/L	87.1	86.9	1	0.23%	36.1	41.5	1	13.92%	82.9	82.3	1	0.73%	48.7	49.2	1	1.02%
	Hardness (as $CaCO_3$)-Total	mg/L	75.0	75.3	0.6	0.4%	31.1	35.6	0.6	13.49%	71.6	70.4	0.6	1.69%	45.7	45.5	0.6	0.44%
	Hardness (as $CaCO_3$)-Dissolved	mg/L	75.2	78.1	0.6	3.78%	30.6	35.1	0.6	13.7%	72.6	73.1	0.6	0.69%	41.4	41.6	0.6	0.48%
Anions and Nutrients	Bromide (Br)	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Chloride (Cl)	mg/L	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-
	Fluoride (F)	mg/L	0.060	0.060	0.02	-	0.022	<0.020	0.02	-	0.058	0.057	0.02	-	0.055	0.054	0.02	-
	Sulfate (SO4)	mg/L	3.66	3.62	0.3	1.1%	1.36	2.61	0.3	-	2.16	2.16	0.3	0%	1.04	1.03	0.3	-
	Total Kjeldahl Nitrogen	mg/L	0.181	0.193	0.05	-	0.124	<0.050	0.05	-	0.068	0.062	0.05	-	0.128	0.126	0.05	-
	Ammonia, Total (as N)	mg/L	<0.0050	0.0068	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Nitrate (as N)	mg/L	<0.0050	<0.0050	0.005	-	0.0343	0.0128	0.005	-	0.0203	0.0202	0.005	-	0.0347	0.0352	0.005	1.43%
	Nitrite (as N)	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Orthophosphate-Dissolved (as P)	mg/L	0.0044	0.0044	0.001	-	<0.0010	0.0021	0.001	-	0.0191	0.0183	0.001	4.28%	0.0370	0.0362	0.001	2.19%
	Total Phosphate (as P)	mg/L	0.0165	0.0191	0.002	14.61%	0.0034	0.0048	0.002	-	0.0232	0.0232	0.002	0%	0.0893	0.0915	0.002	2.43%
Cyanides	Cyanide, Total	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Cyanide, Weak Acid Diss	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Thiocyanate	mg/L	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-
Organic / Inorganic Carbon	Total Organic Carbon	mg/L	5.60	5.54	0.5	1.08%	5.31	1.46	0.5	-	2.66	2.58	0.5	3.05%	4.49	4.58	0.5	1.98%
	Dissolved Organic Carbon	mg/L	5.97	5.63	0.5	5.86%	5.16	1.47	0.5	-	2.59	2.57	0.5	0.78%	4.02	3.88	0.5	3.54%
Total Metals	Aluminum (Al)-Total	mg/L	0.0445	0.0717	0.003	46.82%	0.0209	0.0097	0.003	-	0.0234	0.0213	0.003	9.4%	3.39	2.71	0.003	22.3%
	Antimony (Sb)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	0.00018	0.00017	0.0001	-
	Arsenic (As)-Total	mg/L	0.00080	0.00084	0.0001	4.88%	0.00017	0.00073	0.0001	-	0.00099	0.00094	0.0001	5.18%	0.00296	0.00287	0.0001	3.09%
	Barium (Ba)-Total	mg/L	0.00865	0.00900	0.0001	3.97%	0.00918	0.00410	0.0001	76.51%	0.00722	0.00707	0.0001	2.1%	0.0309	0.0273	0.0001	12.37%
	Beryllium (Be)-Total	mg/L	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	0.000122	0.000112	0.00002	8.55%
	Bismuth (Bi)-Total	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Boron (B)-Total	mg/L	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-
	Cadmium (Cd)-Total	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	0.0000055	0.000005	-	<0.0000050	<0.0000050	0.000005	-	0.0000209	0.0000190	0.000005	-
	Calcium (Ca)-Total	mg/L	21.1	21.3	0.05	0.94%	9.51	12.1	0.05	23.97%	19.0	18.7	0.05	1.59%	12.4	12.5	0.05	0.8%
	Chromium (Cr)-Total	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	0.00287	0.00258	0.0005	10.64%
	Cobalt (Co)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	0.00088	0.00084	0.0001	4.65%
	Copper (Cu)-Total	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	0.00291	0.00279	0.0005	4.21%
	Iron (Fe)-Total	mg/L	0.457	0.508	0.01	10.57%	0.036	<0.010	0.01	-	0.151	0.147	0.01	2.68%	2.68	2.52	0.01	6.15%
	Lead (Pb)-Total	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	0.00160	0.00154	0.00005	3.82%
	Lithium (Li)-Total	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	0.0015	0.0013	0.001	-
	Magnesium (Mg)-Total	mg/L	5.42	5.38	0.1	0.74%	1.78	1.30	0.1	31.17%	5.86	5.77	0.1	1.55%	3.59	3.46	0.1	3.69%

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-10-24				2023-10-31				2023-11-02				2023-11-08			
			CC-40				705-10				661-20				661-05			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Total Metals *(cont'd)*	Manganese (Mn)-Total	mg/L	0.0368	0.0506	0.0001	31.58%	0.00116	0.00014	0.0001	-	0.00871	0.00814	0.0001	6.77%	0.0681	0.0659	0.0001	3.28%
	Mercury (Hg)-Total	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	0.0000130	0.0000132	0.000005	-
	Molybdenum (Mo)-Total	mg/L	0.000998	0.00103	0.00005	3.16%	0.000490	0.000765	0.00005	43.82%	0.00101	0.00100	0.00005	1%	0.000818	0.000800	0.00005	2.22%
	Nickel (Ni)-Total	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	0.00210	0.00203	0.0005	-
	Phosphorus (P)-Total	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	0.088	0.093	0.05	-
	Potassium (K)-Total	mg/L	0.971	0.969	0.1	0.21%	0.314	0.377	0.1	-	0.788	0.776	0.1	1.53%	1.37	1.19	0.1	14.06%
	Selenium (Se)-Total	mg/L	0.000056	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	0.000067	0.000060	0.00005	-	0.000077	0.000064	0.00005	-
	Silicon (Si)-Total	mg/L	5.40	5.38	0.1	0.37%	4.09	5.57	0.1	30.64%	8.01	7.97	0.1	0.5%	15.1	14.0	0.1	7.56%
	Silver (Ag)-Total	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	0.000026	0.000025	0.00001	-
	Sodium (Na)-Total	mg/L	4.85	4.80	0.05	1.04%	2.56	2.28	0.05	11.57%	4.84	4.78	0.05	1.25%	3.95	3.65	0.05	7.89%
	Strontium (Sr)-Total	mg/L	0.113	0.117	0.0002	3.48%	0.0656	0.0535	0.0002	20.32%	0.102	0.102	0.0002	0%	0.0851	0.0836	0.0002	1.78%
	Sulfur (S)-Total	mg/L	1.26	1.33	0.5	-	0.51	0.86	0.5	-	0.98	0.94	0.5	-	<0.50	0.52	0.5	-
	Thallium (Tl)-Total	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	0.000042	0.000034	0.00001	-
	Tin (Sn)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Titanium (Ti)-Total	mg/L	0.00208	0.00354	0.0003	51.96%	0.00036	<0.00030	0.0003	-	0.00095	0.00084	0.0003	-	0.0749	0.0592	0.0003	23.42%
	Uranium (U)-Total	mg/L	0.000219	0.000228	0.00001	4.03%	0.000092	0.000060	0.00001	42.11%	0.000410	0.000412	0.00001	0.49%	0.000301	0.000261	0.00001	14.23%
	Vanadium (V)-Total	mg/L	0.00055	0.00062	0.0005	-	<0.00050	<0.00050	0.0005	-	0.00066	0.00068	0.0005	-	0.00624	0.00566	0.0005	9.75%
	Zinc (Zn)-Total	mg/L	<0.0030	<0.0030	0.003	-	<0.0030	<0.0030	0.003	-	<0.0030	<0.0030	0.003	-	0.0103	0.0095	0.003	-
Dissolved Metals	Aluminum (Al)-Dissolved	mg/L	0.0034	0.0038	0.001	-	0.0167	0.0066	0.001	86.7%	0.0058	0.0060	0.001	3.39%	0.0143	0.0149	0.001	4.11%
	Antimony (Sb)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Arsenic (As)-Dissolved	mg/L	0.00067	0.00067	0.0001	0%	0.00015	0.00074	0.0001	-	0.00087	0.00087	0.0001	0%	0.00111	0.00112	0.0001	0.9%
	Barium (Ba)-Dissolved	mg/L	0.00785	0.00805	0.0001	2.52%	0.00900	0.00408	0.0001	75.23%	0.00688	0.00704	0.0001	2.3%	0.00461	0.00465	0.0001	0.86%
	Beryllium (Be)-Dissolved	mg/L	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-
	Bismuth (Bi)-Dissolved	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Boron (B)-Dissolved	mg/L	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-
	Cadmium (Cd)-Dissolved	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Calcium (Ca)-Dissolved	mg/L	20.9	21.5	0.05	2.83%	9.22	11.8	0.05	24.55%	19.5	19.8	0.05	1.53%	11.9	12.0	0.05	0.84%
	Chromium (Cr)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	0.00073	0.00066	0.0005	-
	Cobalt (Co)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Copper (Cu)-Dissolved	mg/L	0.00026	0.00027	0.0002	-	0.00026	<0.00020	0.0002	-	<0.00020	<0.00020	0.0002	-	0.00023	0.00024	0.0002	-
	Iron (Fe)-Dissolved	mg/L	0.277	0.292	0.01	5.27%	0.030	<0.010	0.01	-	0.098	0.098	0.01	0%	0.029	0.029	0.01	-
	Lead (Pb)-Dissolved	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Lithium (Li)-Dissolved	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Magnesium (Mg)-Dissolved	mg/L	5.59	5.94	0.1	6.07%	1.84	1.38	0.1	28.57%	5.81	5.75	0.1	1.04%	2.85	2.82	0.1	1.06%
	Manganese (Mn)-Dissolved	mg/L	0.0243	0.0258	0.0001	5.99%	0.00082	<0.00010	0.0001	-	0.00381	0.00374	0.0001	1.85%	0.00280	0.00304	0.0001	8.22%
	Mercury (Hg)-Dissolved	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Molybdenum (Mo)-Dissolved	mg/L	0.000948	0.000968	0.00005	2.09%	0.000505	0.000766	0.00005	41.07%	0.000898	0.000887	0.00005	1.23%	0.000774	0.000745	0.00005	3.82%
	Nickel (Ni)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Phosphorus (P)-Dissolved	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Potassium (K)-Dissolved	mg/L	0.955	0.982	0.1	2.79%	0.320	0.393	0.1	-	0.812	0.813	0.1	0.12%	0.613	0.596	0.1	2.81%

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-10-24				2023-10-31				2023-11-02				2023-11-08			
			CC-40				705-10				661-20				661-05			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Dissolved Metals *(cont'd)*	Selenium (Se)-Dissolved	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	0.000078	0.000060	0.00005	-
	Silicon (Si)-Dissolved	mg/L	5.39	5.56	0.05	3.11%	4.08	5.34	0.05	26.75%	7.45	7.45	0.05	0%	8.65	8.59	0.05	0.7%
	Silver (Ag)-Dissolved	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Sodium (Na)-Dissolved	mg/L	4.64	4.88	0.05	5.04%	2.50	2.28	0.05	9.21%	4.78	4.75	0.05	0.63%	3.80	3.70	0.05	2.67%
	Strontium (Sr)-Dissolved	mg/L	0.119	0.120	0.0002	0.84%	0.0648	0.0532	0.0002	19.66%	0.104	0.105	0.0002	0.96%	0.0782	0.0795	0.0002	1.65%
	Sulfur (S)-Dissolved	mg/L	1.09	1.33	0.5	-	<0.50	0.83	0.5	-	0.90	0.84	0.5	-	<0.50	<0.50	0.5	-
	Thallium (Tl)-Dissolved	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Tin (Sn)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Titanium (Ti)-Dissolved	mg/L	<0.00030	<0.00030	0.0003	-	<0.00030	<0.00030	0.0003	-	<0.00030	<0.00030	0.0003	-	<0.00030	0.00044	0.0003	-
	Uranium (U)-Dissolved	mg/L	0.000194	0.000191	0.00001	1.56%	0.000094	0.000070	0.00001	29.27%	0.000341	0.000346	0.00001	1.46%	0.000142	0.000152	0.00001	6.8%
	Vanadium (V)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	0.00054	0.0005	-	0.00052	0.00052	0.0005	-	0.00155	0.00155	0.0005	-
	Zinc (Zn)-Dissolved	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-11-09				2023-12-07				2023-12-14				2023-12-15			
			705-05				661-01				TC-10				DC-10			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Physical Tests	pH	pH units	7.36	7.35	0.1	0.14%	7.44	7.46	0.1	0.27%	8.12	8.11	0.1	0.12%	7.87	7.87	0.1	0%
	Total Suspended Solids	mg/L	<3.0	<3.0	3	-	<3.0	<3.0	3	-	<3.0	<3.0	3	-	<3.0	<3.0	3	-
	Total Dissolved Solids	mg/L	56	53	13	-	42	40	10	-	152	143	20, 13	6.1%	61	61	13	-
	Conductivity	µS/cm	49.8	49.9	2	0.2%	43.3	42.5	2	1.86%	230	231	2	0.43%	88.4	90.0	2	1.79%
	Turbidity	NTU	0.68	0.66	0.1	2.99%	0.30	0.31	0.1	-	1.44	1.39	0.1	3.53%	2.30	2.37	0.1	3%
	Acidity (as $CaCO_3$)	mg/L	<2.0	<2.0	2	-	2.4	2.3	2	-	<2.0	<2.0	2	-	<2.0	<2.0	2	-
	Alkalinity, Total (as $CaCO_3$)	mg/L	24.7	24.2	1	2.04%	22.3	22.2	1	0.45%	120	121	1	0.83%	42.3	42.4	1	0.24%
	Hardness (as $CaCO_3$)-Total	mg/L	22.7	22.5	0.6	0.88%	16.5	16.8	0.6	1.8%	110	111	0.6	0.9%	37.8	38.3	0.6	1.31%
	Hardness (as $CaCO_3$)-Dissolved	mg/L	21.1	21.1	0.6	0%	17.6	17.4	0.6	1.14%	110	108	0.6	1.83%	36.2	37.0	0.6	2.19%
Anions and Nutrients	Bromide (Br)	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Chloride (Cl)	mg/L	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	0.58	0.58	0.5	-
	Fluoride (F)	mg/L	0.025	0.021	0.02	-	0.031	0.030	0.02	-	0.056	0.055	0.02	-	0.036	0.036	0.02	-
	Sulfate (SO4)	mg/L	0.94	0.95	0.3	-	0.46	0.46	0.3	-	4.28	4.28	0.3	0%	3.21	3.19	0.3	0.63%
	Total Kjeldahl Nitrogen	mg/L	0.203	0.193	0.05	-	0.082	0.085	0.05	-	0.092	0.094	0.05	-	0.071	0.072	0.05	-
	Ammonia, Total (as N)	mg/L	<0.0050	<0.0050	0.005	-	0.0060	0.0061	0.005	-	0.0075	0.0076	0.005	-	<0.0050	<0.0050	0.005	-
	Nitrate (as N)	mg/L	<0.0050	<0.0050	0.005	-	0.0710	0.0738	0.005	3.87%	0.0084	0.0122	0.005	-	0.0424	0.0420	0.005	0.95%
	Nitrite (as N)	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Orthophosphate-Dissolved (as P)	mg/L	0.0012	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	0.0025	0.0024	0.001	-	0.0044	0.0045	0.001	-
	Total Phosphate (as P)	mg/L	0.0087	0.0090	0.002	-	0.0051	0.0050	0.002	-	0.0098	0.0100	0.002	-	0.0110	0.0112	0.002	1.8%
Cyanides	Cyanide, Total	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Cyanide, Weak Acid Diss	mg/L	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-	<0.0050	<0.0050	0.005	-
	Thiocyanate	mg/L	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-
Organic / Inorganic Carbon	Total Organic Carbon	mg/L	7.74	8.16	0.5	5.28%	3.38	3.91	0.5	14.54%	3.41	3.41	0.5	0%	3.67	3.78	0.5	2.95%
	Dissolved Organic Carbon	mg/L	7.70	7.84	0.5	1.8%	3.75	3.38	0.5	10.38%	3.50	3.73	0.5	6.36%	3.48	3.62	0.5	3.94%
Total Metals	Aluminum (Al)-Total	mg/L	0.0682	0.0810	0.003	17.16%	0.0376	0.0349	0.003	7.45%	0.0091	0.0132	0.003	-	0.160	0.152	0.003	5.13%
	Antimony (Sb)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Arsenic (As)-Total	mg/L	0.00025	0.00025	0.0001	-	0.00041	0.00044	0.0001	-	0.00038	0.00039	0.0001	-	0.00068	0.00068	0.0001	0%
	Barium (Ba)-Total	mg/L	0.00615	0.00616	0.0001	0.16%	0.00314	0.00310	0.0001	1.28%	0.0142	0.0142	0.0001	0%	0.00910	0.00909	0.0001	0.11%
	Beryllium (Be)-Total	mg/L	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-
	Bismuth (Bi)-Total	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Boron (B)-Total	mg/L	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-
	Cadmium (Cd)-Total	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Calcium (Ca)-Total	mg/L	7.18	7.11	0.05	0.98%	4.55	4.69	0.05	3.03%	33.2	33.4	0.05	0.6%	11.3	11.4	0.05	0.88%
	Chromium (Cr)-Total	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	0.00064	0.00068	0.0005	-
	Cobalt (Co)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Copper (Cu)-Total	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Iron (Fe)-Total	mg/L	0.205	0.201	0.01	1.97%	0.127	0.125	0.01	1.59%	0.319	0.345	0.01	7.83%	0.173	0.167	0.01	3.53%
	Lead (Pb)-Total	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	0.000079	0.000066	0.00005	-
	Lithium (Li)-Total	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Magnesium (Mg)-Total	mg/L	1.16	1.16	0.1	0%	1.25	1.23	0.1	1.61%	6.65	6.68	0.1	0.45%	2.34	2.38	0.1	1.69%

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-11-09				2023-12-07				2023-12-14				2023-12-15			
			705-05				661-01				TC-10				DC-10			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Total Metals *(cont'd)*	Manganese (Mn)-Total	mg/L	0.00984	0.00875	0.0001	11.73%	0.0255	0.0234	0.0001	8.59%	0.0658	0.0707	0.0001	7.18%	0.00473	0.00468	0.0001	1.06%
	Mercury (Hg)-Total	mg/L	<0.0000050	0.0000060	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Molybdenum (Mo)-Total	mg/L	0.000471	0.000523	0.00005	10.46%	0.000228	0.000226	0.00005	-	0.000688	0.000699	0.00005	1.59%	0.000740	0.000723	0.00005	2.32%
	Nickel (Ni)-Total	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Phosphorus (P)-Total	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Potassium (K)-Total	mg/L	0.341	0.334	0.1	-	0.270	0.263	0.1	-	1.01	1.01	0.1	0%	0.619	0.622	0.1	0.48%
	Selenium (Se)-Total	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	0.000069	0.000067	0.00005	-
	Silicon (Si)-Total	mg/L	3.68	3.64	0.1	1.09%	5.45	5.37	0.1	1.48%	7.77	8.06	0.1	3.66%	7.34	7.21	0.1	1.79%
	Silver (Ag)-Total	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Sodium (Na)-Total	mg/L	1.97	1.98	0.05	0.51%	2.24	2.24	0.05	0%	5.32	5.43	0.05	2.05%	3.21	3.22	0.05	0.31%
	Strontium (Sr)-Total	mg/L	0.0541	0.0542	0.0002	0.18%	0.0347	0.0346	0.0002	0.29%	0.163	0.163	0.0002	0%	0.0834	0.0836	0.0002	0.24%
	Sulfur (S)-Total	mg/L	0.54	0.56	0.5	-	<0.50	<0.50	0.5	-	1.63	1.69	0.5	-	1.16	1.06	0.5	-
	Thallium (Tl)-Total	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Tin (Sn)-Total	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Titanium (Ti)-Total	mg/L	0.00149	0.00151	0.0003	-	0.00052	0.00047	0.0003	-	0.00037	0.00039	0.0003	-	0.00392	0.00366	0.0003	6.86%
	Uranium (U)-Total	mg/L	0.000129	0.000132	0.00001	2.3%	0.000020	0.000022	0.00001	-	0.000267	0.000263	0.00001	1.51%	0.000190	0.000190	0.00001	0%
	Vanadium (V)-Total	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	0.00058	0.00057	0.0005	-
	Zinc (Zn)-Total	mg/L	<0.0030	<0.0030	0.003	-	<0.0030	<0.0030	0.003	-	<0.0030	<0.0030	0.003	-	<0.0030	<0.0030	0.003	-
Dissolved Metals	Aluminum (Al)-Dissolved	mg/L	0.0498	0.0518	0.001	3.94%	0.0313	0.0305	0.001	2.59%	0.0033	0.0032	0.001	-	0.0267	0.0296	0.001	10.3%
	Antimony (Sb)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Arsenic (As)-Dissolved	mg/L	0.00023	0.00025	0.0001	-	0.00038	0.00037	0.0001	-	0.00029	0.00027	0.0001	-	0.00053	0.00053	0.0001	0%
	Barium (Ba)-Dissolved	mg/L	0.00594	0.00594	0.0001	0%	0.00300	0.00300	0.0001	0%	0.0148	0.0147	0.0001	0.68%	0.00754	0.00770	0.0001	2.1%
	Beryllium (Be)-Dissolved	mg/L	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-	<0.000020	<0.000020	0.00002	-
	Bismuth (Bi)-Dissolved	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Boron (B)-Dissolved	mg/L	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-	<0.010	<0.010	0.01	-
	Cadmium (Cd)-Dissolved	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Calcium (Ca)-Dissolved	mg/L	6.61	6.60	0.05	0.15%	5.02	4.94	0.05	1.61%	32.2	31.5	0.05	2.2%	10.8	11.0	0.05	1.83%
	Chromium (Cr)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Cobalt (Co)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Copper (Cu)-Dissolved	mg/L	0.00029	0.00031	0.0002	-	<0.00020	<0.00020	0.0002	-	<0.00020	<0.00020	0.0002	-	0.00022	0.00021	0.0002	-
	Iron (Fe)-Dissolved	mg/L	0.158	0.163	0.01	3.12%	0.100	0.097	0.01	3.05%	0.178	0.146	0.01	19.75%	0.047	0.050	0.01	-
	Lead (Pb)-Dissolved	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-
	Lithium (Li)-Dissolved	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-
	Magnesium (Mg)-Dissolved	mg/L	1.12	1.13	0.1	0.89%	1.22	1.22	0.1	0%	7.08	7.01	0.1	0.99%	2.25	2.31	0.1	2.63%
	Manganese (Mn)-Dissolved	mg/L	0.00690	0.00688	0.0001	0.29%	0.0203	0.0202	0.0001	0.49%	0.0637	0.0628	0.0001	1.42%	0.00159	0.00163	0.0001	2.48%
	Mercury (Hg)-Dissolved	mg/L	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-	<0.0000050	<0.0000050	0.000005	-
	Molybdenum (Mo)-Dissolved	mg/L	0.000451	0.000435	0.00005	3.61%	0.000220	0.000216	0.00005	-	0.000672	0.000681	0.00005	1.33%	0.000678	0.000686	0.00005	1.17%
	Nickel (Ni)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Phosphorus (P)-Dissolved	mg/L	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-	<0.050	<0.050	0.05	-
	Potassium (K)-Dissolved	mg/L	0.364	0.360	0.1	-	0.288	0.285	0.1	-	1.10	1.09	0.1	0.91%	0.569	0.581	0.1	2.09%

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

Appendix G-3: Relative Percent Difference Result for Stream Water Quality Duplicates, 2023

Class	Parameter	Units	2023-11-09				2023-12-07				2023-12-14				2023-12-15			
			705-05				661-01				TC-10				DC-10			
			Surface				Surface				Surface				Surface			
			Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD	Primary	Duplicate	DL	RPD
Dissolved Metals *(cont'd)*	Selenium (Se)-Dissolved	mg/L	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	<0.000050	<0.000050	0.00005	-	0.000051	<0.000050	0.00005	-
	Silicon (Si)-Dissolved	mg/L	3.44	3.48	0.05	1.16%	5.23	5.23	0.05	0%	8.00	7.95	0.05	0.63%	6.86	6.95	0.05	1.3%
	Silver (Ag)-Dissolved	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Sodium (Na)-Dissolved	mg/L	1.91	1.92	0.05	0.52%	2.22	2.22	0.05	0%	5.23	5.15	0.05	1.54%	3.13	3.13	0.05	0%
	Strontium (Sr)-Dissolved	mg/L	0.0504	0.0511	0.0002	1.38%	0.0349	0.0365	0.0002	4.48%	0.163	0.164	0.0002	0.61%	0.0790	0.0797	0.0002	0.88%
	Sulfur (S)-Dissolved	mg/L	<0.50	<0.50	0.5	-	<0.50	<0.50	0.5	-	1.71	1.72	0.5	-	1.13	1.02	0.5	-
	Thallium (Tl)-Dissolved	mg/L	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-	<0.000010	<0.000010	0.00001	-
	Tin (Sn)-Dissolved	mg/L	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-	<0.00010	<0.00010	0.0001	-
	Titanium (Ti)-Dissolved	mg/L	0.00121	0.00113	0.0003	-	0.00033	<0.00030	0.0003	-	<0.00030	<0.00030	0.0003	-	0.00075	0.00076	0.0003	-
	Uranium (U)-Dissolved	mg/L	0.000125	0.000123	0.00001	1.61%	0.000023	0.000018	0.00001	-	0.000288	0.000281	0.00001	2.46%	0.000162	0.000166	0.00001	2.44%
	Vanadium (V)-Dissolved	mg/L	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-	<0.00050	<0.00050	0.0005	-
	Zinc (Zn)-Dissolved	mg/L	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-	<0.0010	<0.0010	0.001	-

Notes:

DL = Detection Limit

RPD = Relative Percent Difference.

"<" value is below the detection limit.

"-" indicates RPD was not computed because both results were less than 5X their detection limit.

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APPENDIX D 2023 Particulate Matter Lab Certificate of Analysis

CERTIFICATE OF ANALYSIS

Work Order	: **VA23B4837**	Page	: 1 of 5
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Travis Desormeaux	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 28-Jun-2023 10:30
PO	: ----	Date Analysis Commenced	: 07-Jul-2023
C-O-C number	: 17-012	Issue Date	: 14-Jul-2023 11:58
Sampler	: BC		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 13		
No. of samples analysed	: 13		

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*
Kaitlyn Gardner	Account Manager Assistant	Administration, 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*
µg/m³	micrograms per cubic metre
L	litres
mg/sample	milligrams per sample

<: 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: **Air**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	78149 (Total Volume = 19.2 m3) 77705 (Total Volume = 2.14 m3)	77710 (Total Volume = 19 m3) 78107 (Total Volume = 2.12 m3)	77715 (Total Volume = 18.4 m3) 78106 (Total Volume = 2.05 m3)	77716 (Total Volume = 18.7 m3) 78147 (Total Volume = 2.08 m3)	78102 (Total Volume = 19.1 m3) 77729 (Total Volume = 2.12 m3)
					Client sampling date / time	09-May-2023 13:59	12-May-2023 00:00	15-May-2023 00:00	18-May-2023 00:00	21-May-2023 23:59
						VA23B4837-001	VA23B4837-002	VA23B4837-003	VA23B4837-004	VA23B4837-005
						Result	Result	Result	Result	Result
Field Tests										
Air volume, field, coarse particulate	----	EF005/VA	0.010	L		2140	2120	2050	2080	2120
Air volume, field, fine particulate	----	EF005/VA	0.010	L		19200	19000	18400	18700	19100
Particulates										
Particulate, coarse	----	EC886/VA	2.0	µg/m³		<2.1	31.0	28.8	53.3	88.4
Particulate, fine	----	EC886/VA	2.0	µg/m³		<2.6	11.6	4.9	15.9	82.2
Particulate, PM10	----	EC886/VA	3.0	µg/m³		<3.3	42.6	33.7	69.2	171
Particulate, PM2.5	----	EC886/VA	2.0	µg/m³		<2.6	11.6	4.9	15.9	82.2
Particulate, coarse	----	E886/VA	0.050	mg/sample		<0.050	0.680	0.600	1.14	2.05
Particulate, fine	----	E886/VA	0.050	mg/sample		<0.050	0.220	0.090	0.297	1.57
Particulate, PM10	----	E886/VA	0.075	mg/sample		<0.075	0.900	0.690	1.44	3.62
Particulate, PM2.5	----	E886/VA	0.050	mg/sample		<0.050	0.220	0.090	0.297	1.57

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

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

Analytical Results

Sub-Matrix: **Air**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	77707 (Total Volume = 19 m3) 78101 (Total Volume = 2.11 m3)	78099 (Total Volume = 18.9 m3) 78151 (Total Volume = 2.1 m3)	77706 (Total Volume = 19.3 m3) 77730 (Total Volume = 2.15 m3)	78104 (Total Volume = 19 m3) 77714 (Total Volume = 2.11 m3)	78152 (Total Volume = 19.6 m3) 77718 (Total Volume = 2.18 m3)
					Client sampling date / time	24-May-2023 00:00	27-May-2023 00:00	30-May-2023 00:00	02-Jun-2023 00:00	05-Jun-2023 00:00
						VA23B4837-006	VA23B4837-007	VA23B4837-008	VA23B4837-009	VA23B4837-010
						Result	Result	Result	Result	Result
Field Tests										
Air volume, field, coarse particulate	----	EF005/VA	0.010	L		2110	2100	2150	2110	2180
Air volume, field, fine particulate	----	EF005/VA	0.010	L		19000	18900	19300	19000	19600
Particulates										
Particulate, coarse	----	EC886/VA	2.0	µg/m³		47.2	5.6	29.5	64.4	46.4
Particulate, fine	----	EC886/VA	2.0	µg/m³		5.9	4.1	4.7	4.4	4.6
Particulate, PM10	----	EC886/VA	3.0	µg/m³		53.1	9.7	34.2	68.8	51.0
Particulate, PM2.5	----	EC886/VA	2.0	µg/m³		5.9	4.1	4.7	4.4	4.6
Particulate, coarse	----	E886/VA	0.050	mg/sample		1.01	0.127	0.643	1.37	1.02
Particulate, fine	----	E886/VA	0.050	mg/sample		0.113	0.077	0.090	0.083	0.090
Particulate, PM10	----	E886/VA	0.075	mg/sample		1.12	0.204	0.733	1.45	1.11
Particulate, PM2.5	----	E886/VA	0.050	mg/sample		0.113	0.077	0.090	0.083	0.090

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

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

Analytical Results

Sub-Matrix: **Air**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	77700 (Total Volume = 18.4 m3) 77711 (Total Volume = 2.05 m3)	78153 (Total Volume = 18.9 m3) 77713 (Total Volume = 2.1 m3)	77701 (Total Volume = 19.1 m3) 78103 (Total Volume = 2.13 m3)	----	----
					Client sampling date / time	08-Jun-2023 00:00	11-Jun-2023 00:00	14-Jun-2023 00:00	----	----
						VA23B4837-011	VA23B4837-012	VA23B4837-013	--------	--------
						Result	Result	Result	----	----
Field Tests										
Air volume, field, coarse particulate	----	EF005/VA	0.010	L		2050	2100	2130	----	----
Air volume, field, fine particulate	----	EF005/VA	0.010	L		18400	18900	19100	----	----
Particulates										
Particulate, coarse	----	EC886/VA	2.0	µg/m³		16.5	50.7	12.7	----	----
Particulate, fine	----	EC886/VA	2.0	µg/m³		<2.7	12.0	3.0	----	----
Particulate, PM10	----	EC886/VA	3.0	µg/m³		16.5	62.7	15.7	----	----
Particulate, PM2.5	----	EC886/VA	2.0	µg/m³		<2.7	12.0	3.0	----	----
Particulate, coarse	----	E886/VA	0.050	mg/sample		0.337	1.09	0.277	----	----
Particulate, fine	----	E886/VA	0.050	mg/sample		<0.050	0.227	0.057	----	----
Particulate, PM10	----	E886/VA	0.075	mg/sample		0.337	1.32	0.334	----	----
Particulate, PM2.5	----	E886/VA	0.050	mg/sample		<0.050	0.227	0.057	----	----

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

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

QUALITY CONTROL REPORT

Work Order	: **VA23B4837**	Page	: 1 of 3
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Travis Desormeaux	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 28-Jun-2023 10:30
PO	: ----	Date Analysis Commenced	: 07-Jul-2023
C-O-C number	: 17-012	Issue Date	: 14-Jul-2023 11:59
Sampler	: BC ----		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 13		
No. of samples analysed	: 13		

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
- Method Blank (MB) 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*
Kaitlyn Gardner	Account Manager Assistant	Vancouver Administration, 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: **Air**

					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*
Particulates (QC Lot: 1027529)											
VA23B4837-001	78149 (Total Volume = 19.2 m3) 77705 (Total Volume = 2.14 m3)	Particulate, coarse	----	E886	0.050	mg/sample	<0.050	<0.050	0	Diff <2x LOR	----
		Particulate, fine	----	E886	0.050	mg/sample	<0.050	<0.050	0	Diff <2x LOR	----
		Particulate, PM10	----	E886	0.075	mg/sample	<0.075	<0.075	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: **Air**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Particulates (QCLot: 1027529)						
Particulate, coarse	----	E886	0.05	mg/sample	<0.050	----
Particulate, fine	----	E886	0.05	mg/sample	<0.050	----
Particulate, PM10	----	E886	0.075	mg/sample	<0.075	----

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23B4837**	Page	: 1 of 8
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Travis Desormeaux	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 28-Jun-2023 10:30
PO	: ----	Issue Date	: 14-Jul-2023 11:59
C-O-C number	: 17-012		
Sampler	: BC		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 13		
No. of samples analysed	: 13		

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 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: **Air**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
77700 (Total Volume = 18.4 m3) 77711 (Total Volume = 2.05 m3)	EF005	08-Jun-2023	----	----	----		10-Jul-2023	----	----	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
77701 (Total Volume = 19.1 m3) 78103 (Total Volume = 2.13 m3)	EF005	14-Jun-2023	----	----	----		10-Jul-2023	----	----	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
77706 (Total Volume = 19.3 m3) 77730 (Total Volume = 2.15 m3)	EF005	30-May-2023	----	----	----		10-Jul-2023	----	----	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
77707 (Total Volume = 19 m3) 78101 (Total Volume = 2.11 m3)	EF005	24-May-2023	----	----	----		10-Jul-2023	----	----	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
77710 (Total Volume = 19 m3) 78107 (Total Volume = 2.12 m3)	EF005	12-May-2023	----	----	----		10-Jul-2023	----	----	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
77715 (Total Volume = 18.4 m3) 78106 (Total Volume = 2.05 m3)	EF005	15-May-2023	----	----	----		10-Jul-2023	----	----	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
77716 (Total Volume = 18.7 m3) 78147 (Total Volume = 2.08 m3)	EF005	18-May-2023	----	----	----		10-Jul-2023	----	----	

Matrix: **Air**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
78099 (Total Volume = 18.9 m3) 78151 (Total Volume = 2.1 m3)	EF005	27-May-2023	----	----	----		10-Jul-2023	----	----	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
78102 (Total Volume = 19.1 m3) 77729 (Total Volume = 2.12 m3)	EF005	21-May-2023	----	----	----		10-Jul-2023	----	----	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
78104 (Total Volume = 19 m3) 77714 (Total Volume = 2.11 m3)	EF005	02-Jun-2023	----	----	----		10-Jul-2023	----	----	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
78149 (Total Volume = 19.2 m3) 77705 (Total Volume = 2.14 m3)	EF005	09-May-2023	----	----	----		10-Jul-2023	----	----	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
78152 (Total Volume = 19.6 m3) 77718 (Total Volume = 2.18 m3)	EF005	05-Jun-2023	----	----	----		10-Jul-2023	----	----	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
78153 (Total Volume = 18.9 m3) 77713 (Total Volume = 2.1 m3)	EF005	11-Jun-2023	----	----	----		10-Jul-2023	----	----	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter										
77700 (Total Volume = 18.4 m3) 77711 (Total Volume = 2.05 m3)	E886	08-Jun-2023	----	----	----		07-Jul-2023	----	----	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter										
77701 (Total Volume = 19.1 m3) 78103 (Total Volume = 2.13 m3)	E886	14-Jun-2023	----	----	----		07-Jul-2023	----	----	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter										
77706 (Total Volume = 19.3 m3) 77730 (Total Volume = 2.15 m3)	E886	30-May-2023	----	----	----		07-Jul-2023	----	----	

Matrix: **Air**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter										
77707 (Total Volume = 19 m3) 78101 (Total Volume = 2.11 m3)	E886	24-May-2023	----	----	----		07-Jul-2023	----	----	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter										
77710 (Total Volume = 19 m3) 78107 (Total Volume = 2.12 m3)	E886	12-May-2023	----	----	----		07-Jul-2023	----	----	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter										
77715 (Total Volume = 18.4 m3) 78106 (Total Volume = 2.05 m3)	E886	15-May-2023	----	----	----		07-Jul-2023	----	----	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter										
77716 (Total Volume = 18.7 m3) 78147 (Total Volume = 2.08 m3)	E886	18-May-2023	----	----	----		07-Jul-2023	----	----	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter										
78099 (Total Volume = 18.9 m3) 78151 (Total Volume = 2.1 m3)	E886	27-May-2023	----	----	----		07-Jul-2023	----	----	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter										
78102 (Total Volume = 19.1 m3) 77729 (Total Volume = 2.12 m3)	E886	21-May-2023	----	----	----		07-Jul-2023	----	----	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter										
78104 (Total Volume = 19 m3) 77714 (Total Volume = 2.11 m3)	E886	02-Jun-2023	----	----	----		07-Jul-2023	----	----	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter										
78149 (Total Volume = 19.2 m3) 77705 (Total Volume = 2.14 m3)	E886	09-May-2023	----	----	----		07-Jul-2023	----	----	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter										
78152 (Total Volume = 19.6 m3) 77718 (Total Volume = 2.18 m3)	E886	05-Jun-2023	----	----	----		07-Jul-2023	----	----	

Matrix: **Air**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter										
78153 (Total Volume = 18.9 m3) 77713 (Total Volume = 2.1 m3)	E886	11-Jun-2023	----	----	----		07-Jul-2023	----	----	

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: **Air**

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)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1027529	1	13	7.6	5.0	✓
Method Blanks (MB)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1027529	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
Particulates Dichotomous by Gravimetry (mg/sample)	E886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Particulates Dichotomous by Gravimetry (ug/m3)	EC886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Air Sampling Volume for Particulate (Dichotomous)	EF005 ALS Environmental - Vancouver	Air	Field measurements supplied by client	Field measurement of sampling volume provided by client and recorded on ALS report may affect the validity of results

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 012

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Sarah
Phone:	778-210-0261 or 250-818-3785
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report ☐ YES ☐ NO
☑ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: Envirogeneral@artemisgoldinc.com
Email 2: ktanaka@artemisgoldinc.com
Email 3:

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: Invoices@artemisgoldinc.com
Email 2: Sharrison@artemisgoldinc.com

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

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

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

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

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

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

Project Information

ALS Account # / Quote #:	
Job #:	
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)

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

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer | Sampler: BC

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
1	78149 (Total Volume = 19.2 m3)	9-May-23	23:59	Particulate	1	R			
2	77710 (Total Volume = 19 m3)	12-May-23	(24:00)	Particulate	1	R			
3	77715 (Total Volume = 18.4 m3)	15-May-23	(24:00)	Particulate	1	R			
4	77716 (Total Volume = 18.7 m3)	18-May-23	(24:00)	Particulate	1	R			
5	78102 (Total Volume = 19.1 m3)	21-May-23	23:59	Particulate	1	R			
6	77707 (Total Volume = 19 m3)	24-May-23	(24:00)	Particulate	1	R			
7	78099 (Total Volume = 18.9 m3)	27-May-23	(24:00)	Particulate	1	R			
8	77706 (Total Volume = 19.3 m3)	30-May-23	(24:00)	Particulate	1	R			
9	78104 (Total Volume = 19 m3)	2-Jun-23	(24:00)	Particulate	1	R			
10	78152 (Total Volume = 19.6 m3)	5-Jun-23	(24:00)	Particulate	1	R			
11	77700 (Total Volume = 18.4 m3)	8-Jun-23	(24:00)	Particulate	1	R			
12	78153 (Total Volume = 18.9 m3)	11-Jun-23	(24:00)	Particulate	1	R			

Environmental Division
Vancouver
Work Order Reference
VA23B4837

Telephone : +1 604 253 4188

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

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

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

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

Time = Total Time Sampled

SAMPLE CONDITION AS RECEIVED (lab use only)

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

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
	18

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date: June 26 2023	Time:	Received by:	Date:	Time:	Received by: JC	Date: JUN 28 2023	Time: 1030am

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2018 FRONT

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

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

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 012

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Sarah
Phone:	778-210-0261 or 250-818-3785
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report ☐ YES ☐ NO
☑ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: Envirogeneral@artemisgoldinc.com
Email 2: ktanaka@artemisgoldinc.com
Email 3:

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: Invoices@artemisgoldinc.com
Email 2: Sharrison@artemisgoldinc.com

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

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

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

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

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

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

Project Information

ALS Account # / Quote #:
Job #:
PO / AFE:
LSD:

Oil and Gas Required Fields (client use)

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

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer **Sampler:** BC

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
~~12~~	~~77701 (Total Volume = 19.1 m3)~~	~~14-Jun-23~~	~~(24:00)~~	~~Particulate~~	~~1~~	~~R~~			
1	77705 (Total Volume = 2.14 m3)	9-May-23	23:59	Particulate	1		R		
2	78107 (Total Volume = 2.12 m3)	12-May-23	(24:00)	Particulate	1		R		
3	78106 (Total Volume = 2.05 m3)	15-May-23	(24:00)	Particulate	1		R		
4	78147 (Total Volume = 2.08 m3)	18-May-23	(24:00)	Particulate	1		R		
5	77729 (Total Volume = 2.12 m3)	21-May-23	23:59	Particulate	1		R		
6	78101 (Total Volume = 2.11 m3)	24-May-23	(24:00)	Particulate	1		R		
7	78151 (Total Volume = 2.1 m3)	27-May-23	(24:00)	Particulate	1		R		
8	77730 (Total Volume = 2.15 m3)	30-May-23	(24:00)	Particulate	1		R		
9	77714 (Total Volume = 2.11 m3)	2-Jun-23	(24:00)	Particulate	1		R		
10	77718 (Total Volume = 2.18 m3)	5-Jun-23	(24:00)	Particulate	1		R		
11	77711 (Total Volume = 2.05 m3)	8-Jun-23	(24:00)	Particulate	1		R		

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

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

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

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

Time = Total Time Sampled

SAMPLE CONDITION AS RECEIVED (lab use only)

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

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
					18		

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date: June 26 2023	Time:	Received by:	Date:	Time:	Received by: JC	Date: JUN 28 2023	Time: 1030am

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

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

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here
(lab use only)

COC Number: 17 - 012

Page 3 of 3

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Sarah
Phone:	778-210-0261 or 250-818-3785
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report ☐ YES ☐ NO
☑ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: Envirogeneral@artemisgoldinc.com
Email 2: ktanaka@artemisgoldinc.com
Email 3:

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: Invoices@artemisgoldinc.com
Email 2: Sharrison@artemisgoldinc.com

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

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

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

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

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

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

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

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer **Sampler:** BC

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
12	77713 (Total Volume = 2.1 m3)	11-Jun-23	(24:00)	Particulate	1		R		
13	78103 (Total Volume = 2.13 m3)	14-Jun-23	(24:00)	Particulate	1		R		
				Particulate	1				
				Particulate	1				
				Particulate	1				
				Particulate	1				
				Particulate	1				
				Particulate	1				
				Particulate	1				
				Particulate	1				
				Particulate	1				
				Particulate	1				
				Particulate	1				
				Particulate	1				

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

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

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

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

Time = Total Time Sampled

SAMPLE CONDITION AS RECEIVED (lab use only)

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

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
				18	

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date: June 26 2023	Time:	Received by:	Date:	Time:	Received by: JC	Date: JUN 28 2023	Time: 10:30am

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2018 FRONT

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

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

CERTIFICATE OF ANALYSIS

Work Order	: **VA23B9414**	Page	: 1 of 6
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 17-Aug-2023 10:25
PO	: 12970	Date Analysis Commenced	: 24-Aug-2023
C-O-C number	: 17-014	Issue Date	: 08-Sep-2023 16:10
Sampler	: ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 16		
No. of samples analysed	: 15		

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*
Kaitlyn Gardner	Account Manager Assistant	Administration, Burnaby, British Columbia
Paolo Obillo	Account Manager Assistant	Internal Subcontracting, Cincinnati, Ohio
Tracy Harley	Supervisor - Water Quality Instrumentation	Inorganics, Burnaby, British Columbia

General Comments

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

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

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

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

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
µg/m³	micrograms per cubic metre
L	litres
mg/sample	milligrams per sample
ppbv	parts per billion (volume/volume)

<: less than.

>: greater than.

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

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

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

Workorder Comments

Note for RAD1: This radiello sampling tube was in place for 45 days during a wildfire and could not be removed at the standard interval due to evacuation order. Results should be interpreted with caution.

Analytical Results

Sub-Matrix: **Filter**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	77683 / 78155	77684 / 77188	77685 / 77717	77686 / 77703	77687 / 21530
					Client sampling date / time	10-Aug-2023 00:00	07-Aug-2023 00:00	04-Aug-2023 00:00	01-Aug-2023 00:00	29-Jul-2023 00:00
						VA23B9414-003	VA23B9414-004	VA23B9414-005	VA23B9414-006	VA23B9414-007
						Result	Result	Result	Result	Result
Field Tests										
Air volume, field, coarse particulate	----	EF005/VA	0.010	L		2410	2330	2410	2410	2410
Air volume, field, fine particulate	----	EF005/VA	0.010	L		20900	21600	21600	21600	21600
Particulates										
Particulate, coarse	----	EC886/VA	2.0	µg/m³		16.8	25.3	16.8	2.1	4.4
Particulate, fine	----	EC886/VA	2.0	µg/m³		7.3	7.5	5.4	5.4	5.0
Particulate, PM10	----	EC886/VA	3.0	µg/m³		24.1	32.8	22.2	7.5	9.4
Particulate, PM2.5	----	EC886/VA	2.0	µg/m³		7.3	7.5	5.4	5.4	5.0
Particulate, coarse	----	E886/VA	0.050	mg/sample		0.410	0.623	0.417	0.063	0.117
Particulate, fine	----	E886/VA	0.050	mg/sample		0.153	0.163	0.117	0.117	0.107
Particulate, PM10	----	E886/VA	0.075	mg/sample		0.563	0.786	0.534	0.180	0.224
Particulate, PM2.5	----	E886/VA	0.050	mg/sample		0.153	0.163	0.117	0.117	0.107

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

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

Analytical Results

Sub-Matrix: **Filter**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	77688 / 77720	77689 / 77726	77690 / 77704	77692 / 77724	77693 / 77728
					Client sampling date / time	26-Jul-2023 00:00	23-Jul-2023 00:00	20-Jul-2023 00:00	14-Jul-2023 00:00	11-Jul-2023 00:00
						VA23B9414-008	VA23B9414-009	VA23B9414-010	VA23B9414-011	VA23B9414-012
						Result	Result	Result	Result	Result
Field Tests										
Air volume, field, coarse particulate	----	EF005/VA	0.010	L		2400	2410	2410	2410	2410
Air volume, field, fine particulate	----	EF005/VA	0.010	L		21600	21600	21600	21600	21600
Particulates										
Particulate, coarse	----	EC886/VA	2.0	µg/m³		2.3	6.6	<2.0	15.1	6.2
Particulate, fine	----	EC886/VA	2.0	µg/m³		10.5	40.6	7.7	33.5	8.0
Particulate, PM10	----	EC886/VA	3.0	µg/m³		12.8	47.2	7.7	48.6	14.2
Particulate, PM2.5	----	EC886/VA	2.0	µg/m³		10.5	40.6	7.7	33.5	8.0
Particulate, coarse	----	E886/VA	0.050	mg/sample		0.080	0.257	0.063	0.443	0.167
Particulate, fine	----	E886/VA	0.050	mg/sample		0.227	0.877	0.167	0.723	0.173
Particulate, PM10	----	E886/VA	0.075	mg/sample		0.307	1.13	0.230	1.17	0.340
Particulate, PM2.5	----	E886/VA	0.050	mg/sample		0.227	0.877	0.167	0.723	0.173

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

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

Analytical Results

Sub-Matrix: **Filter**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	77694 / RP68929	77695 / RP76461	77696 / 77723	77699 / 77725	----
					Client sampling date / time	08-Jul-2023 00:00	05-Jul-2023 00:00	02-Jul-2023 00:00	14-Jun-2023 00:00	----
						VA23B9414-013	VA23B9414-014	VA23B9414-015	VA23B9414-016	--------
						Result	Result	Result	Result	----
Field Tests										
Air volume, field, coarse particulate	----	EF005/VA	0.010	L		1430	2400	2400	2410	----
Air volume, field, fine particulate	----	EF005/VA	0.010	L		12800	21600	21600	21600	----
Particulates										
Particulate, coarse	----	EC886/VA	2.0	µg/m³		124	<2.0	14.9	6.4	----
Particulate, fine	----	EC886/VA	2.0	µg/m³		28.4	<2.3	4.3	2.8	----
Particulate, PM10	----	EC886/VA	3.0	µg/m³		152	<3.0	19.2	9.2	----
Particulate, PM2.5	----	EC886/VA	2.0	µg/m³		28.4	<2.3	4.3	2.8	----
Particulate, coarse	----	E886/VA	0.050	mg/sample		1.80	<0.050	0.367	0.160	----
Particulate, fine	----	E886/VA	0.050	mg/sample		0.363	<0.050	0.093	0.060	----
Particulate, PM10	----	E886/VA	0.075	mg/sample		2.16	<0.075	0.460	0.220	----
Particulate, PM2.5	----	E886/VA	0.050	mg/sample		0.363	<0.050	0.093	0.060	----

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

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

Analytical Results

Sub-Matrix: **Sorbent Tube**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	RAD1	----	----	----	----
					Client sampling date / time	15-Aug-2023 16:30	----	----	----	----
						VA23B9414-002	--------	--------	--------	--------
						Result	----	----	----	----
Inorganics										
Sulfur dioxide (as SO2)	7446-09-5	Dioxides m/v/1A	1	ppbv		<0.033	----	----	----	----
Nitrogen dioxide (as NO2)	10102-44-0	Dioxides m/v/1A	1	ppbv		0.84	----	----	----	----

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

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

QUALITY CONTROL REPORT

Work Order	: **VA23B9414**	Page	: 1 of 3
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 17-Aug-2023 10:25
PO	: 12970	Date Analysis Commenced	: 24-Aug-2023
C-O-C number	: 17-014	Issue Date	: 08-Sep-2023 16:10
Sampler	: ---- ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 16		
No. of samples analysed	: 15		

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
- Method Blank (MB) 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*
Kaitlyn Gardner	Account Manager Assistant	Vancouver Administration, Burnaby, British Columbia
Paolo Obillo	Account Manager Assistant	USA - Cincinnati Internal Subcontracting, Cincinnati, Ohio
Tracy Harley	Supervisor - Water Quality Instrumentation	Vancouver Inorganics, Burnaby, British Columbia

General Comments

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

Key :

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

Workorder Comments

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: **Air**

					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*
Particulates (QC Lot: 1116632)											
VA23B9414-003	77683 / 78155	Particulate, coarse	----	E886	0.050	mg/sample	0.410	0.403	0.007	Diff <2x LOR	----
		Particulate, fine	----	E886	0.050	mg/sample	0.153	0.160	0.007	Diff <2x LOR	----
		Particulate, PM10	----	E886	0.075	mg/sample	0.563	0.563	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: **Air**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Particulates (QCLot: 1116632)						
Particulate, coarse	----	E886	0.05	mg/sample	<0.050	----
Particulate, fine	----	E886	0.05	mg/sample	<0.050	----
Particulate, PM10	----	E886	0.075	mg/sample	<0.075	----

ALS Canada Ltd.

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right partner.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23B9414**	Page	: 1 of 8
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 17-Aug-2023 10:25
PO	: 12970	Issue Date	: 08-Sep-2023 16:11
C-O-C number	: 17-014		
Sampler	: ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 16		
No. of samples analysed	: 15		

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 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: **Air**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77683 / 78155	EF005	10-Aug-2023	----	----	----		06-Sep-2023	----	27 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77684 / 77188	EF005	07-Aug-2023	----	----	----		06-Sep-2023	----	30 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77685 / 77717	EF005	04-Aug-2023	----	----	----		06-Sep-2023	----	33 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77686 / 77703	EF005	01-Aug-2023	----	----	----		06-Sep-2023	----	36 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77687 / 21530	EF005	29-Jul-2023	----	----	----		06-Sep-2023	----	39 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77688 / 77720	EF005	26-Jul-2023	----	----	----		06-Sep-2023	----	42 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77689 / 77726	EF005	23-Jul-2023	----	----	----		06-Sep-2023	----	45 days	

Matrix: **Air**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77690 / 77704	EF005	20-Jul-2023	----	----	----		06-Sep-2023	----	48 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77692 / 77724	EF005	14-Jul-2023	----	----	----		06-Sep-2023	----	54 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77693 / 77728	EF005	11-Jul-2023	----	----	----		06-Sep-2023	----	57 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77694 / RP68929	EF005	08-Jul-2023	----	----	----		06-Sep-2023	----	60 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77695 / RP76461	EF005	05-Jul-2023	----	----	----		06-Sep-2023	----	63 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77696 / 77723	EF005	02-Jul-2023	----	----	----		06-Sep-2023	----	66 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77699 / 77725	EF005	14-Jun-2023	----	----	----		06-Sep-2023	----	84 days	
Inorganics : Dioxides by Radiello in Air (ppbv)										
Original packaging RAD1	Dioxides m/v	15-Aug-2023	----	----	----		06-Sep-2023	----	22 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10 77683 / 78155	E886	10-Aug-2023	----	----	----		01-Sep-2023	----	23 days	

Matrix: **Air**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10 77684 / 77188	E886	07-Aug-2023	----	----	----		01-Sep-2023	----	26 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10 77685 / 77717	E886	04-Aug-2023	----	----	----		01-Sep-2023	----	29 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10 77686 / 77703	E886	01-Aug-2023	----	----	----		01-Sep-2023	----	32 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10 77687 / 21530	E886	29-Jul-2023	----	----	----		01-Sep-2023	----	35 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10 77688 / 77720	E886	26-Jul-2023	----	----	----		01-Sep-2023	----	38 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10 77689 / 77726	E886	23-Jul-2023	----	----	----		01-Sep-2023	----	41 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10 77690 / 77704	E886	20-Jul-2023	----	----	----		01-Sep-2023	----	44 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10 77692 / 77724	E886	14-Jul-2023	----	----	----		01-Sep-2023	----	50 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10 77693 / 77728	E886	11-Jul-2023	----	----	----		01-Sep-2023	----	53 days	

Matrix: **Air**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10										
77694 / RP68929	E886	08-Jul-2023	----	----	----		01-Sep-2023	----	56 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10										
77695 / RP76461	E886	05-Jul-2023	----	----	----		01-Sep-2023	----	59 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10										
77696 / 77723	E886	02-Jul-2023	----	----	----		01-Sep-2023	----	62 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10										
77699 / 77725	E886	14-Jun-2023	----	----	----		01-Sep-2023	----	80 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: **Air**

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)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1116632	1	14	7.1	5.0	✓
Method Blanks (MB)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1116632	1	14	7.1	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
Dioxides by Radiello in Air (ppbv)	Dioxides m/v Cincinnati - Environmental - 4388 Glendale-Milford Road Cincinnati Ohio United States 45242	Air	See attached report.	See attached report
Particulates Dichotomous by Gravimetry (mg/sample)	E886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Particulates Dichotomous by Gravimetry (ug/m3)	EC886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Air Sampling Volume for Particulate (Dichotomous)	EF005 ALS Environmental - Vancouver	Air	Field measurements supplied by client	Field measurement of sampling volume provided by client and recorded on ALS report may affect the validity of results

06-Sep-2023

Amber Springer
ALS Environmental
8081 Lougheed HWY
Suite 100
Burnaby, BC V5A 1W9

Re: **VA23B9414** Work Order: **23081107**

Dear Amber,

ALS Environmental received 1 sample on 23-Aug-2023 10:21 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 8.

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

Sincerely,

Hannah Ponder

Electronically approved by: Hannah Ponder

Hannah Ponder

Report of Laboratory Analysis

ALS Environmental

Date: 06-Sep-23

Client: ALS Environmental
Project: VA23B9414
Work Order: **23081107**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
23081107-01	VA23B9414-002	Air		8/15/2023 19:30	8/23/2023 10:21	☐

Client: ALS Environmental
Project: VA23B9414
Work Order: 23081107

Case Narrative

The sample condition upon receipt was acceptable except where noted.

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

Compound identification is based upon retention time matching only. Any compound with a similar retention time will interfere.

Samples were prepared and analyzed by the analytical method and the laboratory's applicable standard operating procedure listed below:
- IH-001- "Determination of Analytes Using NIOSH and OSHA Methods Using Gas Chromatography."
- IH-002- "Determination of Suspended Particulates in the Atmosphere Using Various Media"
- IH-003- "Determination of Suspended Particulates Not Otherwise Regulated (Total and Respirable)."
- IH-004- "Determination of Analytes by NIOSH and OSHA Methods Using Liquid Chromatography."
- IH-005- "Benzene-Soluble Fraction and Total Particulate (Asphalt Fume)."
- IH-006- "Methods IO-3.1 and IO-3.4 Modified for Metals Preparation and Analysis for Suspended Particulates."
- IH-007- "Colorimetric Determination of Hydrogen Sulfide in Air."
- IH-196- "Carbon Black by OSHA 196."
- IH-6009- "Determination of Mercury in Industrial Hygiene Samples by Manual Cold Vapor Atomic Absorption Spectroscopy."
- ENV-6010B- "Determination of Trace Metals in Solution by Inductively Coupled Plasma-Atomic Emission Spectroscopy by EPA Method 6010B Non-VAP."
- IH-7300 modified- "Elements by ICP."

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

All sampling information was provided by the client.

ALS Environmental

Date: *06-Sep-23*

Client: ALS Environmental
Project: VA23B9414

Work Order: 23081107

Analytical Results

Lab ID: 23081107-01A
Client Sample ID: VA23B9414-002

Collection Date: 8/15/2023 7:30:00 PM
Matrix: AIR

Analyses

DIOXIDES BY RADIELLO	Method: **IC**	Time (Min): **64936**	Analyst: **JAP**
Date Analyzed: 8/31/2023 11:20			

	µg/sample	Reporting Limit µg/sample	ppb
Nitrogen Dioxide	**7.7**	**1.0**	**0.84**
Sulfur Dioxide	ND	1.0	<0.033

Note:

ALS Environmental

Date: 06-Sep-23

Client: ALS Environmental

Work Order: 23081107

Project: VA23B9414

QC BATCH REPORT

Batch ID: **93507** Instrument ID **IC2** Method: **IC**

MBLK Sample ID: **MBLK-93507-93507** Units: **µg/sample** Analysis Date: **8/31/2023 10:55 AM**

Client ID: Run ID: **IC2_230831A** SeqNo: **3158872** Prep Date: **8/29/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	ND	1.0								
Sulfur Dioxide	ND	1.0								

LCS Sample ID: **LCS-93507-93507** Units: **µg/sample** Analysis Date: **8/31/2023 11:01 AM**

Client ID: Run ID: **IC2_230831A** SeqNo: **3158873** Prep Date: **8/29/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.476	1.0	5	0	110	79-130	0			
Sulfur Dioxide	6.138	1.0	5	0	123	68.6-146	0			

LCSD Sample ID: **LCSD-93507-93507** Units: **µg/sample** Analysis Date: **8/31/2023 11:08 AM**

Client ID: Run ID: **IC2_230831A** SeqNo: **3158874** Prep Date: **8/29/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.437	1.0	5	0	109	79-130	5.476	0.709	20	
Sulfur Dioxide	6.285	1.0	5	0	126	68.6-146	6.138	2.37	20	

The following samples were analyzed in this batch: 23081107-01A

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

ALS Environmental

Date: 06-Sep-23

Client: ALS Environmental
Project: VA23B9414
WorkOrder: **23081107**

QUALIFIERS, ACRONYMS, UNITS

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

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

Units Reported	Description
µg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **ALS-VANCOUVER** Date/Time Received: **23-Aug-23 10:21**

Work Order: **23081107** Received by: **CA**

Checklist completed by Alec Bolender (eSignature) 23-Aug-23 (Date) Reviewed by: Hannah Ponder (eSignature) 23-Aug-23 (Date)

Matrices: air

Carrier name: DHL

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	16.1	120258	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Chain of Custody

ALS Environmental - Vancouver
8081 Lougheed Highway
Burnaby BC Canada V5A 1W9

23081107

135488

Destination Lab:	**USA - Cincinnati**
Address:	4388 Glendale-Milford Road Cincinnati OH United States 45242
Client:	BW Gold Ltd.
Work Order Number:	**VA23B9414**
Original Receipt Date/Time	Instructions Received
17/08/2023 13:25	

Relinquished By

Date/Time

Received By

Date/Time
8/23/23 1021

Receipt Temp 16.1°C 120258

cooler + 1 ice pack

Return as Indicated: Results: alsev.datasublet@alsglobal.com Invoice: alsev.datasublet@alsglobal.com Electronic Data: alsev.datasublet@alsglobal.com

Attention: Amber Springer

ALS Sample ID	Client ID	Matrix	Container Type	Test Codes	Method Description	Due Date	Sampling Date and Time	Remarks
VA23B9414-002	RAD1	Air	Original packaging	Dioxides	Dioxides by Radiello in Air	08-09-2023	15/08/2023 19:30	

DHL

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 014

Page 1 of

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Mark Warbanski or Sarah Harrison
Phone:	778-818-0327 or 250-818-3785
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

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

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

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

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: Envirogeneral@artemisgoldinc.com

Email 2: ktanaka@artemisgoldinc.com

Email 3:

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: Accounts@artemisgoldinc.com

Email 2: mwarkbanski@artemisgoldinc.com

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

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

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

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

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

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

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:		Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):	9414	ALS Contact: Amber Springer	Sampler:

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10	Radiello NO2 and SO2	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	78105	15-08-23	(24:00)	Particulate			R			
	77682	15-08-23	(24:00)	Particulate		R				
	RAD1	15-08-23	16:30	Radiello				R		

Environmental Division Vancouver

Work Order Reference VA23B9414

Telephone : +1 604 253 4188

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

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

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

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

Time for 78105/77682 = Total Time Sampled July 1 at 14:05 finished Aug 15 16:21

RAD1 Start

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | Ice Packs ☑ | Ice Cubes ☐ | Cooling Initiated ☐

SIF Observations: Yes ☐ No ☐

Custody seal intact: Yes ☐ No ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
					2.5		

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by: JC	Date: 17/8/23	Time: 1025am

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.

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

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 014

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Sarah
Phone:	778-210-0261 or 250-818-3785
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

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

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	Invoices@artemisgoldinc.com
Email 2	Sharrison@artemisgoldinc.com

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:		Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		ALS Contact: Amber Springer	Sampler: BC

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

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

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

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

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

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

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	77683 (total Volume = 21.6 m3)	10-Aug-23	23:59	Particulate	1	R			
	77684 (total Volume = 20.9 m3)	7-Aug-23	23:14	Particulate	1	R			
	77685 (total Volume = 21.6 m3)	4-Aug-23	23:59	Particulate	1	R			
	77686 (total Volume = 21.6 m3)	1-Aug-23	23:59	Particulate	1	R			
	77687 (total Volume = 21.6 m3)	29-Jul-23	23:59	Particulate	1	R			
	77688 (total Volume = 21.6 m3)	26-Jul-23	23:59	Particulate	1	R			
	77689 (total Volume = 21.6 m3)	23-Jul-23	23:59	Particulate	1	R			
	77690 (total Volume = 21.6 m3)	20-Jul-23	23:59	Particulate	1	R			
	77691 run status: 0BAD (no sample data)	17-Jul-23	n/a	Particulate	1				
	77692 (total Volume = 21.6 m3)	14-Jul-23	23:59	Particulate	1	R			
	77693 (total Volume = 21.6 m3)	11-Jul-23	23:59	Particulate	1	R			
	77694 (total Volume = 12.8 m3), run status 100000	8-Jul-23	14:16	Particulate	1	R			

Environmental Division
Vancouver
Work Order Reference
VA23B9414

Telephone : +1 604 253 4188

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

~~Are samples taken from a Regulated DW System?~~

~~☐ YES ☑ NO~~

Are samples for human consumption/ use?

☐ YES ☑ NO

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

Time = Total Time Sampled, 23:59 = 24:00, formatting in COC excel shows 24:00 as 0:00

~~SAMPLE CONDITION AS RECEIVED (lab use only)~~

Frozen ☐ SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

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

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 014

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Sarah
Phone:	778-210-0261 or 250-818-3785
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

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

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

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

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: Envirogeneral@artemisgoldinc.com

Email 2: ktanaka@artemisgoldinc.com

Email 3:

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: Invoices@artemisgoldinc.com

Email 2: Sharrison@artemisgoldinc.com

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

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

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

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

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

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

Project Information

ALS Account # / Quote #:	
Job #:	
PO / AFE:	
LSD:	
ALS Lab Work Order # (lab use only):	

Oil and Gas Required Fields (client use)

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

ALS Contact: Amber Springer Sampler: BC

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	77695 (total Volume = 21.6 m3)	5-Jul-23	23:59	Particulate	1	R			
	77696 (total Volume = 21.6 m3)	2-Jul-23	23:59	Particulate	1	R			
	77699 (total Volume = 21.6 m3)	14-Jun-23	23:59	Particulate	1	R			
	78155 (total Volume = 2.41 m3)	10-Aug-23	23:59	Particulate	1		R		
	77188 (total Volume = 2.33 m3)	7-Aug-23	23:59	Particulate	1		R		
	77717 (total Volume = 2.41 m3)	4-Aug-23	23:59	Particulate	1		R		
	77703 (total Volume = 2.41 m3)	1-Aug-23	23:59	Particulate	1		R		
	21530 (total Volume = 2.41 m3)	29-Jul-23	23:59	Particulate	1		R		
	77720 (total Volume = 2.40 m3)	26-Jul-23	23:59	Particulate	1		R		
	77726 (total Volume = 2.41 m3)	23-Jul-23	23:59	Particulate	1		R		
	77704 (total Volume = 2.41 m3)	20-Jul-23	23:59	Particulate	1		R		
	77702 (run status: 0BAD (no sample data)	17-Jul-23	n/a	Particulate	1				

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

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

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

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

Time = Total Time Sampled

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

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

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

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

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 014

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Sarah
Phone:	778-210-0261 or 250-818-3785
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

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

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

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

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: Envirogeneral@artemisgoldinc.com

Email 2: ktanaka@artemisgoldinc.com

Email 3:

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: Invoices@artemisgoldinc.com

Email 2: Sharrison@artemisgoldinc.com

Project Information

ALS Account # / Quote #:

Job #:

PO / AFE:

LSD:

Oil and Gas Required Fields (client use)

AFE/Cost Center: PO#

Major/Minor Code: Routing Code:

Requisitioner:

Location:

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer Sampler: BC

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

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

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

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

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

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

Analysis Request

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	77724 (total Volume = 2.41 m3)	14-Jul-23	23:59	Particulate	1		R			
	77728 (total Volume = 2.41 m3)	11-Jul-23	23:59	Particulate	1		R			
	RP68929 (total Volume = 1.43 m3)	8-Jul-23	14:16	Particulate	1		R			
	RP76461 (total Volume = 2.40 m3)	5-Jul-23	23:59	Particulate	1		R			
	77723 (total Volume = 2.40 m3)	2-Jul-23	23:59	Particulate	1		R			
	77725 (total Volume = 2.41 m3)	14-Jun-23	23:59	Particulate	1		R			

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

Are samples taken from a Regulated DW System?

☐ YES ☑ NO

Are samples for human consumption/ use?

☐ YES ☑ NO

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

Time = Total Time Sampled

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

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

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

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

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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.

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C1207**	Page	: 1 of 8
Amendment	: **(Partial Results)**		
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 07-Sep-2023 10:25
PO	: 12970	Date Analysis Commenced	: 12-Sep-2023
C-O-C number	: 17-015	Issue Date	: 29-Sep-2023 10:37
Sampler	: JH		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 13		
No. of samples analysed	: 12		

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	Sask Soils, Saskatoon, Saskatchewan
Hedy Lai	Team Leader - Inorganics	Sask Soils, Saskatoon, Saskatchewan
Kaitlyn Gardner	Account Manager Assistant	Administration, Burnaby, British Columbia
Kaitlyn Gardner	Account Manager Assistant	Internal Subcontracting, Cincinnati, Ohio
Maria Painchaud	Laboratory Assistant	Sask Soils, Saskatoon, Saskatchewan
Milad Khani	Laboratory Analyst	Metals, Saskatoon, Saskatchewan
Milad Khani	Laboratory Analyst	Sask Soils, Saskatoon, Saskatchewan
Miles Gropen	Department Manager - Inorganics	Inorganics, Burnaby, British Columbia
Nancy Cruse	Laboratory Assistant	Inorganics, Saskatoon, Saskatchewan
Tracy Harley	Supervisor - Water Quality Instrumentation	Inorganics, Burnaby, British Columbia

General Comments

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

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

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

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

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
%	percent
µg/m³	micrograms per cubic metre
L	litres
mg/kg	milligrams per kilogram
mg/sample	milligrams per sample
mS/cm	millisiemens per centimetre
pH units	pH units
ppbv	parts per billion (volume/volume)

<: 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: **Filter**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	0-78099 /0-77730	0-77700 /0-78151	0-77706 /0-78101	0-78152 /0-77708	0-77701 /0-77719
					Client sampling date / time	19-Aug-2023 23:59	22-Aug-2023 23:59	25-Aug-2023 23:59	28-Aug-2023 23:45	31-Aug-2023 23:59
						VA23C1207-008	VA23C1207-009	VA23C1207-010	VA23C1207-011	VA23C1207-012
						Result	Result	Result	Result	Result
Field Tests										
Air volume, field, coarse particulate	----	EF005/VA	0.010	L		2400	2410	2410	2280	2400
Air volume, field, fine particulate	----	EF005/VA	0.010	L		21600	21600	21600	20500	21600
Particulates										
Particulate, coarse	----	EC886/VA	2.0	µg/m³		26.2	47.2	12.8	86.1	10.4
Particulate, fine	----	EC886/VA	2.0	µg/m³		16.3	48.1	30.2	192	17.7
Particulate, PM10	----	EC886/VA	3.0	µg/m³		42.5	95.3	43.0	278	28.1
Particulate, PM2.5	----	EC886/VA	2.0	µg/m³		16.3	48.1	30.2	192	17.7
Particulate, coarse	----	E886/VA	0.050	mg/sample		0.667	1.25	0.380	2.40	0.293
Particulate, fine	----	E886/VA	0.050	mg/sample		0.353	1.04	0.653	3.93	0.383
Particulate, PM10	----	E886/VA	0.075	mg/sample		1.02	2.29	1.03	6.33	0.676
Particulate, PM2.5	----	E886/VA	0.050	mg/sample		0.353	1.04	0.653	3.93	0.383

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

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

Analytical Results

Sub-Matrix: Filter (Matrix: Air)					Client sample ID	0-78102 /25080	----	----	----	----
					Client sampling date / time	03-Sep-2023 23:59	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA23C1207-013	--------	--------	--------	--------
						Result	----	----	----	----
Field Tests										
Air volume, field, coarse particulate	----	EF005/VA	0.010	L		2410	----	----	----	----
Air volume, field, fine particulate	----	EF005/VA	0.010	L		21600	----	----	----	----
Particulates										
Particulate, coarse	----	EC886/VA	2.0	µg/m³		16.8	----	----	----	----
Particulate, fine	----	EC886/VA	2.0	µg/m³		126	----	----	----	----
Particulate, PM10	----	EC886/VA	3.0	µg/m³		143	----	----	----	----
Particulate, PM2.5	----	EC886/VA	2.0	µg/m³		126	----	----	----	----
Particulate, coarse	----	E886/VA	0.050	mg/sample		0.707	----	----	----	----
Particulate, fine	----	E886/VA	0.050	mg/sample		2.72	----	----	----	----
Particulate, PM10	----	E886/VA	0.075	mg/sample		3.43	----	----	----	----
Particulate, PM2.5	----	E886/VA	0.050	mg/sample		2.72	----	----	----	----

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

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

Analytical Results

Sub-Matrix: Sorbent Tube (Matrix: Air)					Client sample ID	RD5	RD6	----	----	----
					Client sampling date / time	29-Aug-2023 12:43	05-Sep-2023 08:17	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA23C1207-005	VA23C1207-006	--------	--------	--------
						Result	Result	----	----	----
Inorganics										
Sulfur dioxide (as SO2)	7446-09-5	Dioxides m/v/1A	1	ppbv		<0.11	<0.22	----	----	----
Nitrogen dioxide (as NO2)	10102-44-0	Dioxides m/v/1A	1	ppbv		2.1	2.0	----	----	----

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

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

QUALITY CONTROL REPORT

Work Order	: **VA23C1207**	Page	: 1 of 12
Amendment	: **(Partial Results)**		
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 07-Sep-2023 10:25
PO	: 12970	Date Analysis Commenced	: 12-Sep-2023
C-O-C number	: 17-015	Issue Date	: 29-Sep-2023 10:38
Sampler	: JH ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 13		
No. of samples analysed	: 12		

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 Sask Soils, Saskatoon, Saskatchewan
Hedy Lai	Team Leader - Inorganics	Saskatoon Sask Soils, Saskatoon, Saskatchewan
Kaitlyn Gardner	Account Manager Assistant	Vancouver Administration, Burnaby, British Columbia
Kaitlyn Gardner	Account Manager Assistant	USA - Cincinnati Internal Subcontracting, Cincinnati, Ohio
Maria Painchaud	Laboratory Assistant	Saskatoon Sask Soils, Saskatoon, Saskatchewan
Milad Khani	Laboratory Analyst	Saskatoon Metals, Saskatoon, Saskatchewan
Milad Khani	Laboratory Analyst	Saskatoon Sask Soils, Saskatoon, Saskatchewan
Miles Gropen	Department Manager - Inorganics	Vancouver Inorganics, Burnaby, British Columbia
Nancy Cruse	Laboratory Assistant	Saskatoon Inorganics, Saskatoon, Saskatchewan
Tracy Harley	Supervisor - Water Quality Instrumentation	Vancouver Inorganics, Burnaby, British Columbia

General Comments

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

Key :

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

Workorder Comments

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: **Air**

					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*
Particulates (QC Lot: 1134122)											
VA23C1207-008	0-78099 /0-77730	Particulate, coarse	----	E886	0.050	mg/sample	0.667	0.657	0.010	Diff <2x LOR	----
		Particulate, fine	----	E886	0.050	mg/sample	0.353	0.343	0.010	Diff <2x LOR	----
		Particulate, PM10	----	E886	0.075	mg/sample	1.02	1.00	0.020	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*
Physical Tests (QC Lot: 1131252)											
VA23C1207-001	TS-4B-GLFL1 (53.215238°-124.836960°)	Conductivity (1:2 leachate)	----	E100	10	µS/cm	0.025 mS/cm	25	0.2	Diff <2x LOR	----
Physical Tests (QC Lot: 1131253)											
VA23C1207-001	TS-4B-GLFL1 (53.215238°-124.836960°)	pH (1:2 soil:water)	----	E108	0.10	pH units	5.69	5.66	0.529%	10%	----
Physical Tests (QC Lot: 1131260)											
VA23C1207-001	TS-4B-GLFL1 (53.215238°-124.836960°)	Loss on ignition @ 550°C	----	E205D	1.0	%	2.9	2.9	0.02	Diff <2x LOR	----
Percent Passing (QC Lot: 1129913)											
VA23C1297-001	Anonymous	Passing (0.002mm)	----	E184	1.0	%	12.5	12.5	0.007	Diff <2x LOR	----
		Passing (0.004mm)	----	E184	1.0	%	14.5	14.5	0.407%	15%	----
		Passing (0.005mm)	----	E184	1.0	%	15.5	15.4	0.548%	15%	----
		Passing (0.020mm)	----	E184	1.0	%	25.9	25.7	0.793%	15%	----
		Passing (0.0312mm)	----	E184	1.0	%	30.0	29.9	0.223%	15%	----
Percent Passing (QC Lot: 1129914)											
VA23C1297-001	Anonymous	Passing (0.05mm)	----	E182	1.0	%	36.7	36.9	0.448%	15%	----
		Passing (0.063mm)	----	E182	1.0	%	38.8	38.9	0.367%	15%	----
		Passing (0.075mm)	----	E182	1.0	%	40.6	40.8	0.299%	15%	----
		Passing (0.125mm)	----	E182	1.0	%	48.5	48.5	0.0713%	15%	----
		Passing (0.149mm)	----	E182	1.0	%	50.9	50.9	0.0983%	15%	----
		Passing (0.250mm)	----	E182	1.0	%	61.0	61.2	0.188%	15%	----
		Passing (0.420mm)	----	E182	1.0	%	71.6	71.6	0.00995%	15%	----
		Passing (0.50mm)	----	E182	1.0	%	76.6	76.6	0.0844%	15%	----
		Passing (0.841mm)	----	E182	1.0	%	82.0	82.0	0.0332%	15%	----
		Passing (1.0mm)	----	E182	1.0	%	84.5	84.5	0.0116%	15%	----

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*
Plant Available Nutrients (QC Lot: 1130440)											
VA23C1207-001	TS-4B-GLFL1 (53.215238°-124.836960°)	Phosphate, available (as P)	14265-44-2	E385	1.0	mg/kg	18.4	19.2	4.07%	30%	----
Metals (QC Lot: 1131564)											
SK2304714-040	Anonymous	Mercury	7439-97-6	E510	0.0050	mg/kg	0.0367	0.0364	0.841%	40%	----
Metals (QC Lot: 1131565)											
SK2304714-040	Anonymous	Aluminum	7429-90-5	E440	50	mg/kg	12600	13200	5.28%	40%	----
		Antimony	7440-36-0	E440	0.10	mg/kg	0.37	0.38	0.008	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.10	mg/kg	8.10	8.17	0.883%	30%	----
		Barium	7440-39-3	E440	0.50	mg/kg	216	213	1.43%	40%	----
		Beryllium	7440-41-7	E440	0.10	mg/kg	0.63	0.67	0.04	Diff <2x LOR	----
		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	9.4	9.9	0.5	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.020	mg/kg	0.225	0.249	9.98%	30%	----
		Calcium	7440-70-2	E440	50	mg/kg	18600	18200	2.19%	30%	----
		Chromium	7440-47-3	E440	0.50	mg/kg	34.8	27.0	25.2%	30%	----
		Cobalt	7440-48-4	E440	0.10	mg/kg	10.5	10.7	2.48%	30%	----
		Copper	7440-50-8	E440	0.50	mg/kg	21.2	21.1	0.190%	30%	----
		Iron	7439-89-6	E440	50	mg/kg	20400	21700	6.15%	30%	----
		Lead	7439-92-1	E440	0.50	mg/kg	8.73	8.99	2.91%	40%	----
		Lithium	7439-93-2	E440	2.0	mg/kg	17.5	17.5	0.215%	30%	----
		Magnesium	7439-95-4	E440	20	mg/kg	8440	8420	0.136%	30%	----
		Manganese	7439-96-5	E440	1.0	mg/kg	411	526	24.5%	30%	----
		Molybdenum	7439-98-7	E440	0.10	mg/kg	1.73	1.03	50.8%	40%	DUP-H
		Nickel	7440-02-0	E440	0.50	mg/kg	34.5	31.6	8.87%	30%	----
		Phosphorus	7723-14-0	E440	50	mg/kg	475	495	3.95%	30%	----
		Potassium	7440-09-7	E440	100	mg/kg	1920	1920	0.146%	40%	----
		Selenium	7782-49-2	E440	0.20	mg/kg	<0.20	0.21	0.008	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	745	731	1.81%	40%	----
		Strontium	7440-24-6	E440	0.50	mg/kg	71.2	73.2	2.74%	40%	----
		Sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.050	mg/kg	0.192	0.209	0.017	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	94.4	102	7.27%	40%	----
		Tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	0	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: 1131565) - continued											
SK2304714-040	Anonymous	Uranium	7440-61-1	E440	0.050	mg/kg	1.43	1.44	1.24%	30%	----
		Vanadium	7440-62-2	E440	0.20	mg/kg	35.9	36.3	1.03%	30%	----
		Zinc	7440-66-6	E440	2.0	mg/kg	65.3	66.2	1.36%	30%	----
		Zirconium	7440-67-7	E440	1.0	mg/kg	7.2	7.6	6.37%	30%	----
Leachable Anions & Nutrients (QC Lot: 1134121)											
VA23C1141-001	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E319	3510	mg/kg	4.74 %	48000	1.32%	20%	----

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: **Air**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Particulates (QCLot: 1134122)						
Particulate, coarse	----	E886	0.05	mg/sample	<0.050	----
Particulate, fine	----	E886	0.05	mg/sample	<0.050	----
Particulate, PM10	----	E886	0.075	mg/sample	<0.075	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1131252)						
Conductivity (1:2 leachate)	----	E100	10	µS/cm	<10	----
Plant Available Nutrients (QCLot: 1130440)						
Phosphate, available (as P)	14265-44-2	E385	1	mg/kg	<1.0	----
Metals (QCLot: 1131564)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 1131565)						
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	----
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	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 1131565) - continued						
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	----
Leachable Anions & Nutrients (QCLot: 1134121)						
Kjeldahl nitrogen, total [TKN]	----	E319	200	mg/kg	<200	----

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: **Soil/Solid**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1131252)									
Conductivity (1:2 leachate)	----	E100	10	µS/cm	1000 µS/cm	95.7	80.0	120	----
Physical Tests (QCLot: 1131253)									
pH (1:2 soil:water)	----	E108	----	pH units	7 pH units	100	97.0	103	----
Plant Available Nutrients (QCLot: 1130440)									
Phosphate, available (as P)	14265-44-2	E385	1	mg/kg	20 mg/kg	106	80.0	120	----
Metals (QCLot: 1131564)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	97.6	80.0	120	----
Metals (QCLot: 1131565)									
Aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	105	80.0	120	----
Antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	104	80.0	120	----
Arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	108	80.0	120	----
Barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	104	80.0	120	----
Beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	98.6	80.0	120	----
Bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	97.9	80.0	120	----
Boron	7440-42-8	E440	5	mg/kg	100 mg/kg	103	80.0	120	----
Cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	104	80.0	120	----
Calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	101	80.0	120	----
Chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	103	80.0	120	----
Cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	104	80.0	120	----
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	105	80.0	120	----
Iron	7439-89-6	E440	50	mg/kg	100 mg/kg	106	80.0	120	----
Lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	100	80.0	120	----
Lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	100	80.0	120	----
Magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	107	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	104	80.0	120	----
Nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	102	80.0	120	----
Phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	108	80.0	120	----
Potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	110	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	87.9	80.0	120	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 1131565) - continued									
Sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	104	80.0	120	----
Strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	97.7	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	98.1	80.0	120	----
Tin	7440-31-5	E440	2	mg/kg	50 mg/kg	102	80.0	120	----
Titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	102	80.0	120	----
Tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	101	80.0	120	----
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	101	80.0	120	----
Vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	104	80.0	120	----
Zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	102	80.0	120	----
Zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	98.5	80.0	120	----
Leachable Anions & Nutrients (QCLot: 1134121)									
Kjeldahl nitrogen, total [TKN]	----	E319	200	mg/kg	1000 mg/kg	102	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
Physical Tests (QCLot: 1131252)									
	RM	Conductivity (1:2 leachate)	----	E100	273 µS/cm	98.2	80.0	120	----
Physical Tests (QCLot: 1131253)									
	RM	pH (1:2 soil:water)	----	E108	8.13 pH units	99.6	96.0	104	----
Physical Tests (QCLot: 1131260)									
	RM	Loss on ignition @ 550°C	----	E205D	10.33 %	92.1	80.0	120	----
Percent Passing (QCLot: 1129912)									
	RM	Passing (19mm)	----	E181	100 %	100	90.0	110	----
	RM	Passing (2.0mm)	----	E181	100 %	100	90.0	110	----
	RM	Passing (25.4mm)	----	E181	100 %	100	90.0	110	----
	RM	Passing (38.1mm)	----	E181	100 %	100	90.0	110	----
	RM	Passing (4.75mm)	----	E181	100 %	100	90.0	110	----
	RM	Passing (50.8mm)	----	E181	100 %	100	90.0	110	----
	RM	Passing (76.2mm)	----	E181	100 %	100	90.0	110	----
	RM	Passing (9.5mm)	----	E181	100 %	100	90.0	110	----
Percent Passing (QCLot: 1129913)									
	RM	Passing (0.002mm)	----	E184	22.46 %	105	74.1	126	----
	RM	Passing (0.004mm)	----	E184	25.14 %	104	76.8	123	----
	RM	Passing (0.005mm)	----	E184	26.48 %	103	77.9	122	----
	RM	Passing (0.020mm)	----	E184	41.82 %	98.2	85.8	114	----
	RM	Passing (0.0312mm)	----	E184	45.61 %	103	88.0	112	----
Percent Passing (QCLot: 1129914)									
	RM	Passing (0.05mm)	----	E182	54.08 %	104	90.0	110	----
	RM	Passing (0.063mm)	----	E182	57.14 %	102	90.8	109	----
	RM	Passing (0.075mm)	----	E182	60.15 %	101	91.4	109	----
	RM	Passing (0.125mm)	----	E182	68.19 %	101	92.7	107	----
	RM	Passing (0.149mm)	----	E182	72.05 %	99.0	93.1	107	----
	RM	Passing (0.250mm)	----	E182	82.27 %	99.2	94.1	106	----
	RM	Passing (0.420mm)	----	E182	89.94 %	97.7	94.6	105	----

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
Percent Passing (QCLot: 1129914) - continued									
	RM	Passing (0.50mm)	----	E182	91.15 %	99.6	94.7	105	----
	RM	Passing (0.841mm)	----	E182	95.64 %	98.7	94.9	105	----
	RM	Passing (1.0mm)	----	E182	96.31 %	99.8	94.9	105	----
Plant Available Nutrients (QCLot: 1130440)									
	RM	Phosphate, available (as P)	14265-44-2	E385	15.3 mg/kg	100	80.0	120	----
Metals (QCLot: 1131564)									
	RM	Mercury	7439-97-6	E510	0.059 mg/kg	97.5	70.0	130	----
Metals (QCLot: 1131565)									
	RM	Aluminum	7429-90-5	E440	9817 mg/kg	100	70.0	130	----
	RM	Antimony	7440-36-0	E440	3.99 mg/kg	97.1	70.0	130	----
	RM	Arsenic	7440-38-2	E440	3.73 mg/kg	102	70.0	130	----
	RM	Barium	7440-39-3	E440	105 mg/kg	104	70.0	130	----
	RM	Beryllium	7440-41-7	E440	0.349 mg/kg	105	70.0	130	----
	RM	Boron	7440-42-8	E440	8.5 mg/kg	113	40.0	160	----
	RM	Cadmium	7440-43-9	E440	0.91 mg/kg	100	70.0	130	----
	RM	Calcium	7440-70-2	E440	31082 mg/kg	101	70.0	130	----
	RM	Chromium	7440-47-3	E440	101 mg/kg	98.6	70.0	130	----
	RM	Cobalt	7440-48-4	E440	6.9 mg/kg	104	70.0	130	----
	RM	Copper	7440-50-8	E440	123 mg/kg	105	70.0	130	----
	RM	Iron	7439-89-6	E440	23558 mg/kg	106	70.0	130	----
	RM	Lead	7439-92-1	E440	267 mg/kg	101	70.0	130	----
	RM	Lithium	7439-93-2	E440	9.5 mg/kg	105	70.0	130	----
	RM	Magnesium	7439-95-4	E440	5509 mg/kg	103	70.0	130	----
	RM	Manganese	7439-96-5	E440	269 mg/kg	102	70.0	130	----
	RM	Molybdenum	7439-98-7	E440	1.03 mg/kg	101	70.0	130	----
	RM	Nickel	7440-02-0	E440	26.7 mg/kg	102	70.0	130	----
	RM	Phosphorus	7723-14-0	E440	752 mg/kg	102	70.0	130	----
	RM	Potassium	7440-09-7	E440	1587 mg/kg	103	70.0	130	----
	RM	Silver	7440-22-4	E440	4.06 mg/kg	79.7	70.0	130	----
	RM	Sodium	7440-23-5	E440	797 mg/kg	99.2	70.0	130	----
	RM	Strontium	7440-24-6	E440	86.1 mg/kg	93.5	70.0	130	----

Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report: RM Target Concentration	Reference Material (RM) Report: Recovery (%) RM	Reference Material (RM) Report: Recovery Limits (%) Low	Reference Material (RM) Report: Recovery Limits (%) High	Reference Material (RM) Report: Qualifier
Metals (QCLot: 1131565) - continued									
	RM	Thallium	7440-28-0	E440	0.0786 mg/kg	100	40.0	160	----
	RM	Tin	7440-31-5	E440	10.6 mg/kg	104	70.0	130	----
	RM	Titanium	7440-32-6	E440	839 mg/kg	97.1	70.0	130	----
	RM	Uranium	7440-61-1	E440	0.52 mg/kg	100	70.0	130	----
	RM	Vanadium	7440-62-2	E440	32.7 mg/kg	100.0	70.0	130	----
	RM	Zinc	7440-66-6	E440	297 mg/kg	102	70.0	130	----
	RM	Zirconium	7440-67-7	E440	5.73 mg/kg	91.5	70.0	130	----
Leachable Anions & Nutrients (QCLot: 1134121)									
	RM	Kjeldahl nitrogen, total [TKN]	----	E319	1040 mg/kg	98.5	80.0	120	----

ALS Canada Ltd.

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C1207**	Page	: 1 of 14
Amendment	: **(Partial Results)**		
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 07-Sep-2023 10:25
PO	: 12970	Issue Date	: 29-Sep-2023 10:38
C-O-C number	: 17-015		
Sampler	: JH		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 13		
No. of samples analysed	: 12		

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	Anonymous	Anonymous	Molybdenum	7439-98-7	E440	50.8 % DUP-H	40%	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: **Air**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
0-78102 /25080	EF005	03-Sep-2023	----	----	----		26-Sep-2023	----	22 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
0-77701 /0-77719	EF005	31-Aug-2023	----	----	----		26-Sep-2023	----	25 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
0-78152 /0-77708	EF005	28-Aug-2023	----	----	----		26-Sep-2023	----	28 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
0-77706 /0-78101	EF005	25-Aug-2023	----	----	----		26-Sep-2023	----	31 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
0-77700 /0-78151	EF005	22-Aug-2023	----	----	----		26-Sep-2023	----	34 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
0-78099 /0-77730	EF005	19-Aug-2023	----	----	----		26-Sep-2023	----	37 days	
Inorganics : Dioxides by Radiello in Air (ppbv)										
Original packaging										
RD6	Dioxides m/v	05-Sep-2023	----	----	----		18-Sep-2023	----	13 days	

Matrix: **Air**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Inorganics : Dioxides by Radiello in Air (ppbv)										
Original packaging RD5	Dioxides m/v	29-Aug-2023	----	----	----		18-Sep-2023	----	20 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter 0-78102 /25080	E886	03-Sep-2023	----	----	----		14-Sep-2023	----	10 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter 0-77701 /0-77719	E886	31-Aug-2023	----	----	----		14-Sep-2023	----	13 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter 0-78152 /0-77708	E886	28-Aug-2023	----	----	----		14-Sep-2023	----	16 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter 0-77706 /0-78101	E886	25-Aug-2023	----	----	----		14-Sep-2023	----	19 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter 0-77700 /0-78151	E886	22-Aug-2023	----	----	----		14-Sep-2023	----	22 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter 0-78099 /0-77730	E886	19-Aug-2023	----	----	----		14-Sep-2023	----	25 days	

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Leachable Anions & Nutrients : Total Kjeldahl Nitrogen by Colourimetry										
LDPE bag TS4B- Org1 (53.214839°-124.837055°)	E319	25-Aug-2023	14-Sep-2023	365 days	20 days	✓	15-Sep-2023	365 days	21 days	✓

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Leachable Anions & Nutrients : Total Kjeldahl Nitrogen by Colourimetry										
LDPE bag TS-4B-GLFL1 (53.215238°-124.836960°)	E319	25-Aug-2023	14-Sep-2023	365 days	20 days	✓	15-Sep-2023	365 days	21 days	✓
Leachable Anions & Nutrients : Total Kjeldahl Nitrogen by Colourimetry										
LDPE bag TS-4B-GLFL2 (53.215990°-124.836414°)	E319	25-Aug-2023	14-Sep-2023	365 days	20 days	✓	15-Sep-2023	365 days	21 days	✓
Leachable Anions & Nutrients : Total Kjeldahl Nitrogen by Colourimetry										
LDPE bag TS-4B-GLFL3 (53.215053°-124.836234°)	E319	25-Aug-2023	14-Sep-2023	365 days	20 days	✓	15-Sep-2023	365 days	21 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag TS4B- Org1 (53.214839°-124.837055°)	E510	25-Aug-2023	13-Sep-2023	28 days	19 days	✓	14-Sep-2023	28 days	20 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag TS-4B-GLFL1 (53.215238°-124.836960°)	E510	25-Aug-2023	13-Sep-2023	28 days	19 days	✓	14-Sep-2023	28 days	20 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag TS-4B-GLFL2 (53.215990°-124.836414°)	E510	25-Aug-2023	13-Sep-2023	28 days	19 days	✓	14-Sep-2023	28 days	20 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag TS-4B-GLFL3 (53.215053°-124.836234°)	E510	25-Aug-2023	13-Sep-2023	28 days	19 days	✓	14-Sep-2023	28 days	20 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag TS4B- Org1 (53.214839°-124.837055°)	E440	25-Aug-2023	13-Sep-2023	180 days	19 days	✓	14-Sep-2023	180 days	20 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag TS-4B-GLFL1 (53.215238°-124.836960°)	E440	25-Aug-2023	13-Sep-2023	180 days	19 days	✓	14-Sep-2023	180 days	20 days	✓

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag TS-4B-GLFL2 (53.215990°-124.836414°)	E440	25-Aug-2023	13-Sep-2023	180 days	19 days	✓	14-Sep-2023	180 days	20 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag TS-4B-GLFL3 (53.215053°-124.836234°)	E440	25-Aug-2023	13-Sep-2023	180 days	19 days	✓	14-Sep-2023	180 days	20 days	✓
Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method										
LDPE bag TS4B- Org1 (53.214839°-124.837055°)	E185A	25-Aug-2023	----	----	----		14-Sep-2023	----	----	
Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method										
LDPE bag TS-4B-GLFL1 (53.215238°-124.836960°)	E185A	25-Aug-2023	----	----	----		14-Sep-2023	----	----	
Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method										
LDPE bag TS-4B-GLFL2 (53.215990°-124.836414°)	E185A	25-Aug-2023	----	----	----		14-Sep-2023	----	----	
Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method										
LDPE bag TS-4B-GLFL3 (53.215053°-124.836234°)	E185A	25-Aug-2023	----	----	----		14-Sep-2023	----	----	
Percent Passing : Particle Size Analysis - Pipette Method										
LDPE bag TS4B- Org1 (53.214839°-124.837055°)	E184	25-Aug-2023	12-Sep-2023	365 days	18 days	✓	12-Sep-2023	365 days	18 days	✓
Percent Passing : Particle Size Analysis - Pipette Method										
LDPE bag TS-4B-GLFL1 (53.215238°-124.836960°)	E184	25-Aug-2023	12-Sep-2023	365 days	18 days	✓	12-Sep-2023	365 days	18 days	✓
Percent Passing : Particle Size Analysis - Pipette Method										
LDPE bag TS-4B-GLFL2 (53.215990°-124.836414°)	E184	25-Aug-2023	12-Sep-2023	365 days	18 days	✓	12-Sep-2023	365 days	18 days	✓

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Percent Passing : Particle Size Analysis - Pipette Method										
LDPE bag TS-4B-GLFL3 (53.215053°-124.836234°)	E184	25-Aug-2023	12-Sep-2023	365 days	18 days	✓	12-Sep-2023	365 days	18 days	✓
Percent Passing : Particle Size Analysis - Sieve <2mm										
LDPE bag TS4B- Org1 (53.214839°-124.837055°)	E182	25-Aug-2023	12-Sep-2023	365 days	18 days	✓	12-Sep-2023	365 days	18 days	✓
Percent Passing : Particle Size Analysis - Sieve <2mm										
LDPE bag TS-4B-GLFL1 (53.215238°-124.836960°)	E182	25-Aug-2023	12-Sep-2023	365 days	18 days	✓	12-Sep-2023	365 days	18 days	✓
Percent Passing : Particle Size Analysis - Sieve <2mm										
LDPE bag TS-4B-GLFL2 (53.215990°-124.836414°)	E182	25-Aug-2023	12-Sep-2023	365 days	18 days	✓	12-Sep-2023	365 days	18 days	✓
Percent Passing : Particle Size Analysis - Sieve <2mm										
LDPE bag TS-4B-GLFL3 (53.215053°-124.836234°)	E182	25-Aug-2023	12-Sep-2023	365 days	18 days	✓	12-Sep-2023	365 days	18 days	✓
Percent Passing : Particle Size Analysis - Sieve >2mm										
LDPE bag TS4B- Org1 (53.214839°-124.837055°)	E181	25-Aug-2023	12-Sep-2023	365 days	18 days	✓	12-Sep-2023	365 days	18 days	✓
Percent Passing : Particle Size Analysis - Sieve >2mm										
LDPE bag TS-4B-GLFL1 (53.215238°-124.836960°)	E181	25-Aug-2023	12-Sep-2023	365 days	18 days	✓	12-Sep-2023	365 days	18 days	✓
Percent Passing : Particle Size Analysis - Sieve >2mm										
LDPE bag TS-4B-GLFL2 (53.215990°-124.836414°)	E181	25-Aug-2023	12-Sep-2023	365 days	18 days	✓	12-Sep-2023	365 days	18 days	✓
Percent Passing : Particle Size Analysis - Sieve >2mm										
LDPE bag TS-4B-GLFL3 (53.215053°-124.836234°)	E181	25-Aug-2023	12-Sep-2023	365 days	18 days	✓	12-Sep-2023	365 days	18 days	✓

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Soil (1:2 Soil:Water Extraction)										
LDPE bag TS4B- Org1 (53.214839°-124.837055°)	E100	25-Aug-2023	14-Sep-2023	30 days	20 days	✓	14-Sep-2023	30 days	20 days	✓
Physical Tests : Conductivity in Soil (1:2 Soil:Water Extraction)										
LDPE bag TS-4B-GLFL1 (53.215238°-124.836960°)	E100	25-Aug-2023	14-Sep-2023	30 days	20 days	✓	14-Sep-2023	30 days	20 days	✓
Physical Tests : Conductivity in Soil (1:2 Soil:Water Extraction)										
LDPE bag TS-4B-GLFL2 (53.215990°-124.836414°)	E100	25-Aug-2023	14-Sep-2023	30 days	20 days	✓	14-Sep-2023	30 days	20 days	✓
Physical Tests : Conductivity in Soil (1:2 Soil:Water Extraction)										
LDPE bag TS-4B-GLFL3 (53.215053°-124.836234°)	E100	25-Aug-2023	14-Sep-2023	30 days	20 days	✓	14-Sep-2023	30 days	20 days	✓
Physical Tests : Loss On Ignition (550°C)										
LDPE bag TS4B- Org1 (53.214839°-124.837055°)	E205D	25-Aug-2023	----	----	----		13-Sep-2023	365 days	19 days	✓
Physical Tests : Loss On Ignition (550°C)										
LDPE bag TS-4B-GLFL1 (53.215238°-124.836960°)	E205D	25-Aug-2023	----	----	----		13-Sep-2023	365 days	19 days	✓
Physical Tests : Loss On Ignition (550°C)										
LDPE bag TS-4B-GLFL2 (53.215990°-124.836414°)	E205D	25-Aug-2023	----	----	----		13-Sep-2023	365 days	19 days	✓
Physical Tests : Loss On Ignition (550°C)										
LDPE bag TS-4B-GLFL3 (53.215053°-124.836234°)	E205D	25-Aug-2023	----	----	----		13-Sep-2023	365 days	19 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag TS4B- Org1 (53.214839°-124.837055°)	E108	25-Aug-2023	14-Sep-2023	30 days	20 days	✓	14-Sep-2023	30 days	20 days	✓

Matrix: **Soil/Solid**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag TS-4B-GLFL1 (53.215238°-124.836960°)	E108	25-Aug-2023	14-Sep-2023	30 days	20 days	✓	14-Sep-2023	30 days	20 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag TS-4B-GLFL2 (53.215990°-124.836414°)	E108	25-Aug-2023	14-Sep-2023	30 days	20 days	✓	14-Sep-2023	30 days	20 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag TS-4B-GLFL3 (53.215053°-124.836234°)	E108	25-Aug-2023	14-Sep-2023	30 days	20 days	✓	14-Sep-2023	30 days	20 days	✓
Plant Available Nutrients : Available Phosphorus by Colourimetry (Olsen)										
LDPE bag TS4B- Org1 (53.214839°-124.837055°)	E385	25-Aug-2023	14-Sep-2023	----	----		14-Sep-2023	0 days	0 days	✓
Plant Available Nutrients : Available Phosphorus by Colourimetry (Olsen)										
LDPE bag TS-4B-GLFL1 (53.215238°-124.836960°)	E385	25-Aug-2023	14-Sep-2023	----	----		14-Sep-2023	0 days	0 days	✓
Plant Available Nutrients : Available Phosphorus by Colourimetry (Olsen)										
LDPE bag TS-4B-GLFL2 (53.215990°-124.836414°)	E385	25-Aug-2023	14-Sep-2023	----	----		14-Sep-2023	0 days	0 days	✓
Plant Available Nutrients : Available Phosphorus by Colourimetry (Olsen)										
LDPE bag TS-4B-GLFL3 (53.215053°-124.836234°)	E385	25-Aug-2023	14-Sep-2023	----	----		14-Sep-2023	0 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: **Air**

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)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1134122	1	6	16.6	5.0	✓
Method Blanks (MB)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1134122	1	6	16.6	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)							
Available Phosphorus by Colourimetry (Olsen)	E385	1130440	1	4	25.0	5.0	✓
Conductivity in Soil (1:2 Soil:Water Extraction)	E100	1131252	1	4	25.0	5.0	✓
Loss On Ignition (550°C)	E205D	1131260	1	4	25.0	5.0	✓
Mercury in Soil/Solid by CVAAS	E510	1131564	1	14	7.1	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	1131565	1	20	5.0	5.0	✓
Particle Size Analysis - Pipette Method	E184	1129913	1	4	25.0	5.0	✓
Particle Size Analysis - Sieve <2mm	E182	1129914	1	4	25.0	5.0	✓
pH by Meter (1:2 Soil:Water Extraction)	E108	1131253	1	4	25.0	5.0	✓
Total Kjeldahl Nitrogen by Colourimetry	E319	1134121	1	12	8.3	5.0	✓
Laboratory Control Samples (LCS)							
Available Phosphorus by Colourimetry (Olsen)	E385	1130440	2	4	50.0	10.0	✓
Conductivity in Soil (1:2 Soil:Water Extraction)	E100	1131252	2	4	50.0	10.0	✓
Loss On Ignition (550°C)	E205D	1131260	1	4	25.0	5.0	✓
Mercury in Soil/Solid by CVAAS	E510	1131564	2	14	14.2	10.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	1131565	2	20	10.0	10.0	✓
Particle Size Analysis - Pipette Method	E184	1129913	1	4	25.0	5.0	✓
Particle Size Analysis - Sieve <2mm	E182	1129914	1	4	25.0	5.0	✓
Particle Size Analysis - Sieve >2mm	E181	1129912	1	4	25.0	5.0	✓
pH by Meter (1:2 Soil:Water Extraction)	E108	1131253	2	4	50.0	10.0	✓
Total Kjeldahl Nitrogen by Colourimetry	E319	1134121	2	12	16.6	10.0	✓
Method Blanks (MB)							
Available Phosphorus by Colourimetry (Olsen)	E385	1130440	1	4	25.0	5.0	✓
Conductivity in Soil (1:2 Soil:Water Extraction)	E100	1131252	1	4	25.0	5.0	✓
Loss On Ignition (550°C)	E205D	1131260	1	4	25.0	5.0	✓
Mercury in Soil/Solid by CVAAS	E510	1131564	1	14	7.1	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	1131565	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Colourimetry	E319	1134121	1	12	8.3	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
Dioxides by Radiello in Air (ppbv)	Dioxides m/v Cincinnati - Environmental - 4388 Glendale-Milford Road Cincinnati Ohio United States 45242	Air	See attached report.	See attached report
Particulates Dichotomous by Gravimetry (mg/sample)	E886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Particulates Dichotomous by Gravimetry (ug/m3)	EC886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Air Sampling Volume for Particulate (Dichotomous)	EF005 ALS Environmental - Vancouver	Air	Field measurements supplied by client	Field measurement of sampling volume provided by client and recorded on ALS report may affect the validity of results
Conductivity in Soil (1:2 Soil:Water Extraction)	E100 ALS Environmental - Saskatoon	Soil/Solid	CSSS Ch. 15 (mod)/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 soil sample that has been added in a defined ratio of soil to deionized water, then shaken well and allowed to settle. Conductance is measured in the fluid that is observed in the upper layer.
pH by Meter (1:2 Soil:Water Extraction)	E108 ALS Environmental - Saskatoon	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.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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.
Grain Size Report (Attachment) Pipet/Sieve Method	E185A ALS Environmental - Saskatoon	Soil/Solid	SSIR-51 Method 3.2.1	A grain size curve is a graphical representation of the particle sizing of a sample representing the percent passing against the effective particle size.
Loss On Ignition (550°C)	E205D ALS Environmental - Saskatoon	Soil/Solid	CSSS (2008) 28.3 (mod)	Loss On Ignition (LOI) is determined by drying a portion of an air dried and ground sample at 105°C overnight, then igniting at 550°C for 16-20 hours. The weight loss after ignition is reported as % loss on ignition. LOI is reported on a dry weight basis. LOI at 550°C can be used as an estimation of Organic Matter (CSSS 2008).
Total Kjeldahl Nitrogen by Colourimetry	E319 ALS Environmental - Saskatoon	Soil/Solid	CSSS (2008) 22.2.3	The soil is digested with sulfuric acid in the presence of $CuSO_4$ and K_2SO_4 catalysts. Ammonia in the soil extract is determined colourimetrically at 660 nm.
Available Phosphorus by Colourimetry (Olsen)	E385 ALS Environmental - Saskatoon	Soil/Solid	Carter CSSS (2008) 8.3	Plant available phosphorus is extracted from air dried soil using a fixed ratio bicarbonate extraction. Phosphorus is determined by colorimetry.
Metals in Soil/Solid by CRC ICPMS	E440 ALS Environmental - Saskatoon	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 HNO_3 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.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Mercury in Soil/Solid by CVAAS	E510 ALS Environmental - Saskatoon	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.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Leach 1:2 Soil:Water for pH/EC	EP108 ALS Environmental - Saskatoon	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.
Kjeldahl Digestion for soils	EP319 ALS Environmental - Saskatoon	Soil/Solid	CSSS (2008) 22.2.3	The soil is digested with sulfuric acid in the presence of CuSO4 and K2SO4 catalysts.
Bicarbonate extraction for soil	EP385 ALS Environmental - Saskatoon	Soil/Solid	CSSS (2008) 8.2	Plant available phosphorus is extracted using fixed ratio sodium bicarbonate solution (Olsen method).
Digestion for Metals and Mercury	EP440 ALS Environmental - Saskatoon	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.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 015

Page 1 of 2

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Mark Warbanski or Sarah Harrison
Phone:	778-818-0327 or 250-818-3785
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report ☐ YES ☐ NO
☑ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax ~~Envirogeneral@artemisgoldinc.com~~
Email 2 ktanaka@artemisgoldinc.com
Email 3

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax Accounts@artemisgoldinc.com
Email 2 mwarkbanski@artemisgoldinc.com

Project Information

ALS Account # / Quote #:
Job #:
PO / AFE:
LSD:

Oil and Gas Required Fields (client use)

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

ALS Lab Work Order # (lab use only): VA23C1207

ALS Contact: Amber Springer **Sampler:** JH

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

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

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

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

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the service level selected

Analysis Req

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	CA09 - CCME Metals + Hg + pH in soil	E100 - Conductivity	E205D - Loss on Ignition	E319 - TKN	E385 - Plant Available Phosphorous	EP108 - Leach 1:2 soil:water for pH	EPP442 - Dry and Grind	S184 - Particle Size	Radiello NO2 and SO2	PM2.5	PM10				SAM	SUSPECTED
1	TS-4B-GLFL1 (53.215238° -124.836960°)	25-Aug-23	12:54	Soil	1	R	R	R	R	R	R	R	R								
2	TS-4B-GLFL2 (53.215990° -124.836414°)	25-Aug-23	13:02	Soil	1	R	R	R	R	R	R	R	R								
3	TS-4B-GLFL3 (53.215053° -124.836234°)	25-Aug-23	13:15	Soil	1	R	R	R	R	R	R	R	R								
4	TS4B- Org1 (53.214839° -124.837055°)	25-Aug-23	12:48	Soil	1	R	R	R	R	R	R	R	R								
5	RD5	29-Aug-23	12:43	Radiello	1									R							
6	RD6	5-Sep-23	8:17	Radiello	1									R							
7	0-77681			Particulate	1										R						
8	0-78099 (Total Volume 21.6m3)	19-Aug-23	23:59	Particulate	1										R						
9	0-77700 (Total Volume 21.6m3)	22-Aug-23	23:59	Particulate	1										R						
10	0-77706 (Total Volume 21.6m3)	25-Aug-23	23:59	Particulate	1										R						
11	0-78152 (Total Volume 20.5m3)	28-Aug-23	22:45	Particulate	1										R						
12	0-77701 (Total Volume 21.6m3)	31-Aug-23	23:59	Particulate	1										R						

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

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

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

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

Soil Sample Location; Artemis Gold, Stockpile 4B. RD5 Start 15-Aug-23 16:22, Finished 29-Aug-23 12:43. RD6 Start 29-Aug-23 12:44, End Sep 5, 2023 08:17. See second page

SAMPLE CONDITION AS RECEIVED (lab use only)

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

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				7			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: Jeremie Roy	Date: Sept 5th, 2023	Time: 14:00	Received by:	Date:	Time:	Received by: JJ	Date: 7 Sep 23	Time: 10:25

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

NOV 2015 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.**

Environmental Division
Vancouver
Work Order Reference
VA23C1207

Telephone : +1 604 253 4188

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here
(lab use only)

COC Number: 17 - 015

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Mark Warbanski or Sarah Harrison
Phone:	778-818-0327 or 250-818-3785
	Company address below will appear on the final report
Street:	~~101 - 139 1st Street East~~
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report ☐ YES ☐ NO
☑ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax Envirogeneral@artemisgoldinc.com
Email 2 ktanaka@artemisgoldinc.com
Email 3

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax Accounts@artemisgoldinc.com
Email 2 mwarkbanski@artemisgoldinc.com

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

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

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐
EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
For tests that can not be performed according to the service level selected, you will be contacted.

Project Information

ALS Account # / Quote #:	
Job #:	
PO / AFE:	
LSD:	
ALS Lab Work Order # (lab use only):	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	
ALS Contact: Amber Springer	Sampler: JH

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
13	0-78102 (Total Volume 21.6m3)	3-Sep-23	23:59	Particulate	1	R			
7	0-78100			Particulate	1		R		
8	0-77730 (Total volume: 2.40m3)	19-Aug-23	23:59	Particulate	1		R		
9	0-78151 (Total volume: 2.41m3)	22-Aug-23	23:59	Particulate	1		R		
10	0-78101 (Total volume: 2.41m3)	25-Aug-23	23:59	Particulate	1		R		
11	0-77708 (Total volume: 2.28m3)	28-Aug-23	22:45	Particulate	1		R		
12	0-77719 (Total volume: 2.40m3)	31-Aug-23	23:59	Particulate	1		R		
13	25080 (Total volume: 2.41m3)	3-Sep-23	23:59	Particulate	1		R		

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

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

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

Please upload to EMS, EMS ID E331131. Particulate samples Time = total time sampled

SAMPLE CONDITION AS RECEIVED (lab use only)

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

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
					7		

SHIPMENT RELEASE (client use)

Released by: Jeremie Roy	Date: Sept 5th, 2023	Time: 14:00

INITIAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (lab use only)

Received by: JC	Date: 7 Sep 23	Time: 0025

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2018 FRONT

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

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

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C2028**	Page	: 1 of 3
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 14-Sep-2023 10:50
PO	:	Date Analysis Commenced	: 21-Sep-2023
C-O-C number	: 17-017	Issue Date	: 25-Sep-2023 11:08
Sampler	: ----		
Site	:		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 4		
No. of samples analysed	: 2		

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*
Kaitlyn Gardner	Account Manager Assistant	Administration, 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*
µg/m³	micrograms per cubic metre
L	litres
mg/sample	milligrams per sample

<: 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: **Filter**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	077716/057295	078147/078148	----	----	----
					Client sampling date / time	06-Sep-2023 23:59	09-Sep-2023 23:59	----	----	----
						VA23C2028-001	VA23C2028-003	--------	--------	--------
						Result	Result	----	----	----
Field Tests										
Air volume, field, coarse particulate	----	EF005/VA	0.010	L		2410	2410	----	----	----
Air volume, field, fine particulate	----	EF005/VA	0.010	L		21600	21600	----	----	----
Particulates										
Particulate, coarse	----	EC886/VA	2.0	µg/m³		<2.0	10.7	----	----	----
Particulate, fine	----	EC886/VA	2.0	µg/m³		7.4	5.7	----	----	----
Particulate, PM10	----	EC886/VA	3.0	µg/m³		7.4	16.4	----	----	----
Particulate, PM2.5	----	EC886/VA	2.0	µg/m³		7.4	5.7	----	----	----
Particulate, coarse	----	E886/VA	0.050	mg/sample		<0.050	0.270	----	----	----
Particulate, fine	----	E886/VA	0.050	mg/sample		0.160	0.123	----	----	----
Particulate, PM10	----	E886/VA	0.075	mg/sample		0.160	0.393	----	----	----
Particulate, PM2.5	----	E886/VA	0.050	mg/sample		0.160	0.123	----	----	----

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

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

QUALITY CONTROL REPORT

Work Order	: **VA23C2028**	Page	: 1 of 3
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 14-Sep-2023 10:50
PO	:	Date Analysis Commenced	: 21-Sep-2023
C-O-C number	: 17-017	Issue Date	: 25-Sep-2023 11:08
Sampler	: ---- ----		
Site	:		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 4		
No. of samples analysed	: 2		

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
- Method Blank (MB) 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*
Kaitlyn Gardner	Account Manager Assistant	Vancouver Administration, 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: **Air**

					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*
Particulates (QC Lot: 1146761)											
VA23C2028-001	077716/057295	Particulate, coarse	----	E886	0.050	mg/sample	<0.050	<0.050	0	Diff <2x LOR	----
		Particulate, fine	----	E886	0.050	mg/sample	0.160	0.160	0	Diff <2x LOR	----
		Particulate, PM10	----	E886	0.075	mg/sample	0.160	0.160	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: **Air**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Particulates (QCLot: 1146761)						
Particulate, coarse	----	E886	0.05	mg/sample	<0.050	----
Particulate, fine	----	E886	0.05	mg/sample	<0.050	----
Particulate, PM10	----	E886	0.075	mg/sample	<0.075	----

ALS Canada Ltd.

right solutions.
right partner.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C2028**	Page	: 1 of 5
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 14-Sep-2023 10:50
PO	:	Issue Date	: 25-Sep-2023 11:08
C-O-C number	: 17-017		
Sampler	: ----		
Site	:		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 4		
No. of samples analysed	: 2		

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 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: **Air**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
078147/078148	EF005	09-Sep-2023	----	----	----		22-Sep-2023	----	12 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
077716/057295	EF005	06-Sep-2023	----	----	----		22-Sep-2023	----	15 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter										
078147/078148	E886	09-Sep-2023	----	----	----		21-Sep-2023	----	12 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter										
077716/057295	E886	06-Sep-2023	----	----	----		21-Sep-2023	----	15 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: **Air**

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)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1146761	1	2	50.0	5.0	✓
Method Blanks (MB)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1146761	1	2	50.0	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
Particulates Dichotomous by Gravimetry (mg/sample)	E886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Particulates Dichotomous by Gravimetry (ug/m3)	EC886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Air Sampling Volume for Particulate (Dichotomous)	EF005 ALS Environmental - Vancouver	Air	Field measurements supplied by client	Field measurement of sampling volume provided by client and recorded on ALS report may affect the validity of results

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here
(lab use only)

COC Number: 17 - 017

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Mark Warbanski or Sarah Harrison
Phone:	778-818-0327 or 250-818-3785
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report ☐ YES ☐ NO
☑ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: Envirogeneral@artemisgoldinc.com
Email 2: ktanaka@artemisgoldinc.com
Email 3:

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: Accounts@artemisgoldinc.com
Email 2: mwarkbanski@artemisgoldinc.com

Project Information

ALS Account # / Quote #:
Job #:
PO / AFE:
LSD:

Oil and Gas Required Fields (client use)

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

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer **Sampler:**

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

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

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

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

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

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

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	077716 (Vol 21.6m3)	6-Sep-23	23:59	Particulate	1	R			
	078147 (Vol 21.6m3)	9-Sep-23	23:59	Particulate	1	R			
	057295 (2.41m3)	6-Sep-23	23:59	Particulate	1		R		
	078148 (2.41m3)	9-Sep-23	23:59	Particulate	1		R		
				Particulate					
				Particulate					
				Particulate					
				Particulate					
				Particulate					
				Particulate					
				Particulate					
				Particulate					

Environmental Division
Vancouver
Work Order Reference
VA23C2028

Telephone : +1 604 253 4188

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

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

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

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

Time = Total Time Sampled. Please upload to EMS, EMS ID E331131

SAMPLE CONDITION AS RECEIVED (lab use only)

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

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
					12		

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: Jeremie Roy	Date: 09/13/2023	Time: 04:00	Received by:	Date:	Time:	Received by: JC	Date: 14-9-23	Time: 1050a

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2018 FRONT

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

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

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C2500**	Page	: 1 of 3
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 21-Sep-2023 10:45
PO	: 12970	Date Analysis Commenced	: 27-Sep-2023
C-O-C number	: ----	Issue Date	: 28-Sep-2023 16:49
Sampler	: ----		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 3		
No. of samples analysed	: 3		

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*
Kaitlyn Gardner	Account Manager Assistant	Administration, 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*
µg/m³	micrograms per cubic metre
L	litres
mg/sample	milligrams per sample

<: 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: **Filter**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	78103/80874	78107/77722	78106/77727	----	----
					Client sampling date / time	18-Sep-2023 00:00	15-Sep-2023 00:00	12-Sep-2023 23:21	----	----
						VA23C2500-001	VA23C2500-002	VA23C2500-003	--------	--------
						Result	Result	Result	----	----
Field Tests										
Air volume, field, coarse particulate	----	EF005/VA	0.010	L		2410	2410	2340	----	----
Air volume, field, fine particulate	----	EF005/VA	0.010	L		21600	21600	21000	----	----
Particulates										
Particulate, coarse	----	EC886/VA	2.0	µg/m³		28.2	72.0	4.6	----	----
Particulate, fine	----	EC886/VA	2.0	µg/m³		5.2	25.9	6.5	----	----
Particulate, PM10	----	EC886/VA	3.0	µg/m³		33.4	97.9	11.1	----	----
Particulate, PM2.5	----	EC886/VA	2.0	µg/m³		5.2	25.9	6.5	----	----
Particulate, coarse	----	E886/VA	0.050	mg/sample		0.690	1.79	0.123	----	----
Particulate, fine	----	E886/VA	0.050	mg/sample		0.113	0.560	0.137	----	----
Particulate, PM2.5	----	E886/VA	0.050	mg/sample		0.113	0.560	0.137	----	----

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

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

QUALITY CONTROL REPORT

Work Order	: **VA23C2500**	Page	: 1 of 3
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 21-Sep-2023 10:45
PO	: 12970	Date Analysis Commenced	: 27-Sep-2023
C-O-C number	: ----	Issue Date	: 28-Sep-2023 16:49
Sampler	: ---- ----		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 3		
No. of samples analysed	: 3		

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
- Method Blank (MB) 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*
Kaitlyn Gardner	Account Manager Assistant	Vancouver Administration, 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: **Air**

					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*
Particulates (QC Lot: 1159678)											
VA23C2500-001	78103/80874	Particulate, coarse	----	E886	0.050	mg/sample	0.690	0.697	0.007	Diff <2x LOR	----
		Particulate, fine	----	E886	0.050	mg/sample	0.113	0.120	0.007	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: **Air**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Particulates (QCLot: 1159678)						
Particulate, coarse	----	E886	0.05	mg/sample	<0.050	----
Particulate, fine	----	E886	0.05	mg/sample	<0.050	----

ALS Canada Ltd.

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right partner.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C2500**	Page	: 1 of 5
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 21-Sep-2023 10:45
PO	: 12970	Issue Date	: 28-Sep-2023 16:49
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 3		
No. of samples analysed	: 3		

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 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: **Air**

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

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
78107/77722	EF005	15-Sep-2023	----	----	----		27-Sep-2023	----	12 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
78106/77727	EF005	12-Sep-2023	----	----	----		27-Sep-2023	----	14 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
78103/80874	EF005	18-Sep-2023	----	----	----		27-Sep-2023	----	9 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter										
78103/80874	E886	18-Sep-2023	----	----	----		28-Sep-2023	----	11 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter										
78107/77722	E886	15-Sep-2023	----	----	----		28-Sep-2023	----	14 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
M5/M29 : Quartz Filter										
78106/77727	E886	12-Sep-2023	----	----	----		28-Sep-2023	----	16 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: **Air**

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)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1159678	1	3	33.3	5.0	✓
Method Blanks (MB)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1159678	1	3	33.3	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
Particulates Dichotomous by Gravimetry (mg/sample)	E886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Particulates Dichotomous by Gravimetry (ug/m3)	EC886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Air Sampling Volume for Particulate (Dichotomous)	EF005 ALS Environmental - Vancouver	Air	Field measurements supplied by client	Field measurement of sampling volume provided by client and recorded on ALS report may affect the validity of results

Chain of Custody (COC) / Analytical Request Form

COC Number: 17 - 018

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

Page of

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Mark Warbanski
Phone:	778-818-0327
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Project Information

ALS Account # / Quote #:	
Job #:	
PO / AFE:	
LSD:	
ALS Lab Work Order # (lab use only):	C2500
ALS Contact:	Amber Springer
Sampler:	

Report Format / Distribution

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

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

☑ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: Envirogeneral@artemisgoldinc.com

Email 2: ktanaka@artemisgoldinc.com

Email 3:

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: Accounts@artemisgoldinc.com

Email 2: mwarkbanski@artemisgoldinc.com

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days)
- 4 day [P4-20%] ☐
- 3 day [P3-25%] ☐
- 2 day [P2-50%] ☐

EMERGENCY
- 1 Business day [E - 100%] ☐
- Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	78103 (Total Volume = 21.6 m3)	18-Sep-23	(24:00)	Particulate	1	R			
	78107 (Total Volume = 21.6 m3)	15-Sep-23	(24:00)	Particulate	1	R			
	78106 (Total Volume = 21.0 m3)	12-Sep-23	(23:21)	Particulate	1	R			
	80874 (Total Volume = 2.41 m3)	18-Sep-23	(24:00)	Particulate			R		
	77722 (Total Volume = 2.41 m3)	15-Sep-23	(24:00)	Particulate			R		
	77727 (Total Volume = 2.34 m3)	12-Sep-23	(23:21)	Particulate			R		

Environmental Division Vancouver
Work Order Reference
VA23C2500

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?

☐ YES ☑ NO

Are samples for human consumption/ use?

☐ YES ☑ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Results need to be uploaded to EMS - EMS 331131, Particulate samples Time = Total time Sampled.

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	☐	SIF Observations	Yes ☐	No	☐
Ice Packs	☐	Ice Cubes ☐	Custody seal intact	Yes ☐	No ☐
Cooling Initiated	☐				

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				5			

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
BD	September 19, 2023	105 PM.

INITIAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:
CN	Sep 21	1045

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2018 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C3528**	Page	: 1 of 3
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 27-Sep-2023 10:55
PO	:	Date Analysis Commenced	: 04-Oct-2023
C-O-C number	: 17-022	Issue Date	: 10-Oct-2023 16:27
Sampler	: BWG		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 2		
No. of samples analysed	: 2		

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*
Kaitlyn Gardner	Account Manager Assistant	Administration, Burnaby, British Columbia
Lindsay Gung	Supervisor - Water Chemistry	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*
µg/m³	micrograms per cubic metre
L	litres
mg/sample	milligrams per sample

<: 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: **Air**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	77713/21529	78154/77711	----	----	----
					Client sampling date / time	21-Sep-2023 23:59	24-Sep-2023 00:00	----	----	----
						VA23C3528-001	VA23C3528-002	--------	--------	--------
						Result	Result	----	----	----
Field Tests										
Air volume, field, coarse particulate	----	EF005/VA	0.010	L		2400	2410	----	----	----
Air volume, field, fine particulate	----	EF005/VA	0.010	L		21600	21600	----	----	----
Particulates										
Particulate, coarse	----	EC886/VA	2.0	µg/m³		42.8	9.1	----	----	----
Particulate, fine	----	EC886/VA	2.0	µg/m³		5.6	3.2	----	----	----
Particulate, PM10	----	EC886/VA	3.0	µg/m³		48.4	12.3	----	----	----
Particulate, PM2.5	----	EC886/VA	2.0	µg/m³		5.6	3.2	----	----	----
Particulate, coarse	----	E886/VA	0.050	mg/sample		1.04	0.227	----	----	----
Particulate, fine	----	E886/VA	0.050	mg/sample		0.120	0.070	----	----	----
Particulate, PM10	----	E886/VA	0.075	mg/sample		1.16	0.297	----	----	----
Particulate, PM2.5	----	E886/VA	0.050	mg/sample		0.120	0.070	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23C3528**	Page	: 1 of 3
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 27-Sep-2023 10:55
PO	:	Date Analysis Commenced	: 04-Oct-2023
C-O-C number	: 17-022	Issue Date	: 10-Oct-2023 16:28
Sampler	: BWG ----		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 2		
No. of samples analysed	: 2		

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
- Method Blank (MB) 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*
Kaitlyn Gardner	Account Manager Assistant	Vancouver Administration, Burnaby, British Columbia
Lindsay Gung	Supervisor - Water Chemistry	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: **Air**

					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*
Particulates (QC Lot: 1176765)											
VA23C3528-001	77713/21529	Particulate, coarse	----	E886	0.050	mg/sample	1.04	1.03	0.322%	10%	----
		Particulate, fine	----	E886	0.050	mg/sample	0.120	0.127	0.007	Diff <2x LOR	----
		Particulate, PM10	----	E886	0.075	mg/sample	1.16	1.16	0.003	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: **Air**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Particulates (QCLot: 1176765)						
Particulate, coarse	----	E886	0.05	mg/sample	<0.050	----
Particulate, fine	----	E886	0.05	mg/sample	<0.050	----
Particulate, PM10	----	E886	0.075	mg/sample	<0.075	----

ALS Canada Ltd.

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C3528**	Page	: 1 of 5
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 27-Sep-2023 10:55
PO	:	Issue Date	: 10-Oct-2023 16:28
C-O-C number	: 17-022		
Sampler	: BWG		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 2		
No. of samples analysed	: 2		

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 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: **Air**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 78154/77711	EF005	24-Sep-2023	----	----	----		04-Oct-2023	----	11 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM2.5 77713/21529	EF005	21-Sep-2023	----	----	----		04-Oct-2023	----	13 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10 78154/77711	E886	24-Sep-2023	----	----	----		10-Oct-2023	----	16 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM2.5 77713/21529	E886	21-Sep-2023	----	----	----		10-Oct-2023	----	18 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: **Air**

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)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1176765	1	2	50.0	5.0	✓
Method Blanks (MB)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1176765	1	2	50.0	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
Particulates Dichotomous by Gravimetry (mg/sample)	E886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Particulates Dichotomous by Gravimetry (ug/m3)	EC886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Air Sampling Volume for Particulate (Dichotomous)	EF005 ALS Environmental - Vancouver	Air	Field measurements supplied by client	Field measurement of sampling volume provided by client and recorded on ALS report may affect the validity of results

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here
(lab use only)

COC Number: 17 - 022

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Mark Warbanski
Phone:	778-818-0327
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☐ YES ☐ NO
☑ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	Envirogeneral@artemisgoldinc.com
Email 2	ktanaka@artemisgoldinc.com
Email 3	

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)	
Regular [R]	☑ Standard TAT if received by 3 pm - business days - no surcharges apply
PRIORITY (Business Days) 4 day [P4-20%]	☐
3 day [P3-25%]	☐
2 day [P2-50%]	☐
EMERGENCY 1 Business day [E - 100%]	☐
Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)]	☐
Date and Time Required for all E&P TATs:	dd-mmm-yy hh:mm
For tests that can not be performed according to the service level selected, you will be contacted.	

Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	Accounts@artemisgoldinc.com
Email 2	mwarkbanski@artemisgoldinc.com

Project Information	Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	AFE/Cost Center:	PO#
Job #:	Major/Minor Code:	Routing Code:
PO / AFE:	Requisitioner:	
LSD:	Location:	
ALS Lab Work Order # (lab use only):	ALS Contact: Amber Springer	Sampler: BWG

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	77713 (Total Volume = 21.6 m3)	21-Sep-23	(23:59)	Particulate	1	R			
	77711 (Total Volume = 21.6 m3)	24-Sep-23	(24:00)	Particulate	1	R			
	21529 (Total Volume = 2.40 m3)	21-Sep-23	(23:59)	Particulate	1		R		
	78154 (Total Volume = 2.41 m3)	24-Sep-23	(24:00)	Particulate	1		R		

Environmental Division
Vancouver
Work Order Reference
VA23C3528

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	
Are samples for human consumption/ use? ☐ YES ☑ NO	Results need to be uploaded to EMS - EMS 331131, Particulate samples Time = Total time Sampled.

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	☐	SIF Observations	Yes ☐	No	☐
Ice Packs	☑	Ice Cubes ☐	Custody seal intact	Yes ☐	No ☐
Cooling Initiated	☐				

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date: September 26, 2023	Time: 10:00	Received by:	Date:	Time:	Received by:	Date: 9/27/23	Time: 10:55 AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2015 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.

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C4261**	Page	: 1 of 3
Amendment	: **1**		
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 11-Oct-2023 11:11
PO	: 12970	Date Analysis Commenced	: 19-Oct-2023
C-O-C number	: 17-024	Issue Date	: 26-Nov-2023 11:03
Sampler	: BWG		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 2		
No. of samples analysed	: 2		

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*
Kaitlyn Gardner	Account Manager Assistant	Administration, Burnaby, British Columbia
Kate Dimitrova	Supervisor - Inorganic	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*
µg/m³	micrograms per cubic metre
L	litres
mg/sample	milligrams per sample

<: 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: **Air**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Partisol 1 077714-077709	Partisol 1 077718-078156	----	----	----
					Client sampling date / time: 30-Sep-2023 23:59	27-Sep-2023 23:59	----	----	----
					VA23C4261-001	VA23C4261-002	--------	--------	--------
					Result	Result	----	----	----
Field Tests									
Air volume, field, coarse particulate	----	EF005/VA	0.010	L	2410	2410	----	----	----
Air volume, field, fine particulate	----	EF005/VA	0.010	L	21600	21600	----	----	----
Particulates									
Particulate, coarse	----	EC886/VA	2.0	µg/m³	11.1	9.2	----	----	----
Particulate, fine	----	EC886/VA	2.0	µg/m³	5.6	2.4	----	----	----
Particulate, PM10	----	EC886/VA	3.0	µg/m³	16.7	11.6	----	----	----
Particulate, PM2.5	----	EC886/VA	2.0	µg/m³	5.6	2.4	----	----	----
Particulate, coarse	----	E886/VA	0.050	mg/sample	0.280	0.227	----	----	----
Particulate, fine	----	E886/VA	0.050	mg/sample	0.120	0.053	----	----	----
Particulate, PM10	----	E886/VA	0.075	mg/sample	0.400	0.280	----	----	----
Particulate, PM2.5	----	E886/VA	0.050	mg/sample	0.120	0.053	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23C4261**	Page	: 1 of 3
Amendment	: **1**		
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 11-Oct-2023 11:11
PO	: 12970	Date Analysis Commenced	: 19-Oct-2023
C-O-C number	: 17-024	Issue Date	: 26-Nov-2023 11:03
Sampler	: BWG ----		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 2		
No. of samples analysed	: 2		

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
- Method Blank (MB) 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*
Kaitlyn Gardner	Account Manager Assistant	Vancouver Administration, Burnaby, British Columbia
Kate Dimitrova	Supervisor - Inorganic	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: **Air**

					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*
Particulates (QC Lot: 1196827)											
VA23C4261-001	Partisol 1 077714-077709	Particulate, coarse	----	E886	0.050	mg/sample	0.280	0.260	0.020	Diff <2x LOR	----
		Particulate, fine	----	E886	0.050	mg/sample	0.120	0.143	0.023	Diff <2x LOR	----
		Particulate, PM10	----	E886	0.075	mg/sample	0.400	0.403	0.003	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: **Air**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Particulates (QCLot: 1196827)						
Particulate, coarse	----	E886	0.05	mg/sample	<0.050	----
Particulate, fine	----	E886	0.05	mg/sample	<0.050	----
Particulate, PM10	----	E886	0.075	mg/sample	<0.075	----

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C4261**	Page	: 1 of 5
Amendment	: **1**		
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 11-Oct-2023 11:11
PO	: 12970	Issue Date	: 26-Nov-2023 11:03
C-O-C number	: 17-024		
Sampler	: BWG		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 2		
No. of samples analysed	: 2		

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 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: **Air**

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*
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM2.5 Partisol 1 - 077714-077709	EF005	30-Sep-2023	----	----	----		19-Oct-2023	----	18 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 Partisol 1 - 077718-078156	EF005	27-Sep-2023	----	----	----		19-Oct-2023	----	21 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM2.5 Partisol 1 - 077714-077709	E886	30-Sep-2023	----	----	----		20-Oct-2023	----	19 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10 Partisol 1 - 077718-078156	E886	27-Sep-2023	----	----	----		20-Oct-2023	----	22 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: **Air**

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)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1196827	1	2	50.0	5.0	✓
Method Blanks (MB)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1196827	1	2	50.0	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
Particulates Dichotomous by Gravimetry (mg/sample)	E886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Particulates Dichotomous by Gravimetry (ug/m3)	EC886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Air Sampling Volume for Particulate (Dichotomous)	EF005 ALS Environmental - Vancouver	Air	Field measurements supplied by client	Field measurement of sampling volume provided by client and recorded on ALS report may affect the validity of results

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here
(lab use only)

COC Number: 17 - 024

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Mark Warbanski
Phone:	778-818-0327
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report ☐ YES ☐ NO
☑ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: Envirogeneral@artemisgoldinc.com
Email 2: ktanaka@artemisgoldinc.com
Email 3:

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: Accounts@artemisgoldinc.com
Email 2: mwarkbanski@artemisgoldinc.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days)
- 4 day [P4-20%] ☐
- 3 day [P3-25%] ☐
- 2 day [P2-50%] ☐

EMERGENCY
- 1 Business day [E - 100%] ☐
- Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:		Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer Sampler: BWG

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	077714 (Total Vol 21.6m3)	30-Sep-23	23:59	Particulate	1	R			
	077718 (Total Vol 21.6m3)	27-Sep-23	23:59	Particulate	1	R			
	077709 (Total Vol. 2.41m3)	30-Sep-23	23:59	Particulate	1		R		
	078156 (Total Vol. 2.41m3)	27-Sep-23	23:59	Particulate	1		R		

Environmental Division
Vancouver
Work Order Reference
VA23C4261

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?
☐ YES ☑ NO

Are samples for human consumption/ use?
☐ YES ☑ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Time = Total Time Sampled. Please upload to EMS, EMS ID E331131

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐
Ice Packs ☑ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐
Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				13			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: Jeremie Roy	Date: 10/6/2023	Time:	Received by:	Date:	Time:	Received by:	Date: OCT 11 2023	Time: 11:11

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2018 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form.**

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C6093**	Page	: 1 of 3
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 30-Oct-2023 09:40
PO	: 15180	Date Analysis Commenced	: 02-Nov-2023
C-O-C number	: 17-026	Issue Date	: 07-Nov-2023 11:02
Sampler	: BWG		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 4		
No. of samples analysed	: 4		

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*
Kaitlyn Gardner	Account Manager Assistant	Administration, Burnaby, British Columbia
Lindsay Gung	Supervisor - Water Chemistry	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*
µg/m³	micrograms per cubic metre
L	litres
mg/sample	milligrams per sample

<: 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: **Air**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Partisol 1 077705-077729	Partisol 1 077702-078155	Partisol 1 077691-077720	Partisol 1 077683-077717	----
					Client sampling date / time: 03-Oct-2023 23:59	17-Oct-2023 23:59	20-Oct-2023 00:00	23-Oct-2023 00:00	----
					VA23C6093-001	VA23C6093-002	VA23C6093-003	VA23C6093-004	--------
					Result	Result	Result	Result	----
Field Tests									
Air volume, field, coarse particulate	----	EF005/VA	0.010	L	2400	2400	2410	2410	----
Air volume, field, fine particulate	----	EF005/VA	0.010	L	21600	21600	21600	21600	----
Particulates									
Particulate, coarse	----	EC886/VA	2.0	µg/m³	4.6	<2.0	<2.0	16.9	----
Particulate, fine	----	EC886/VA	2.0	µg/m³	3.6	2.6	<2.3	4.5	----
Particulate, PM10	----	EC886/VA	3.0	µg/m³	8.2	<3.0	<3.0	21.4	----
Particulate, PM2.5	----	EC886/VA	2.0	µg/m³	3.6	2.6	<2.3	4.5	----
Particulate, coarse	----	E886/VA	0.050	mg/sample	0.120	<0.050	<0.050	0.417	----
Particulate, fine	----	E886/VA	0.050	mg/sample	0.077	0.057	<0.050	0.097	----
Particulate, PM10	----	E886/VA	0.075	mg/sample	0.197	<0.075	<0.075	0.514	----
Particulate, PM2.5	----	E886/VA	0.050	mg/sample	0.077	0.057	<0.050	0.097	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23C6093**	Page	: 1 of 3
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
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Project	: ----	Date Samples Received	: 30-Oct-2023 09:40
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C-O-C number	: 17-026	Issue Date	: 07-Nov-2023 11:02
Sampler	: BWG ----		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
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No. of samples analysed	: 4		

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- Method Blank (MB) Report; Recovery and Data Quality Objectives

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General Comments

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# = Indicates a QC result that did not meet the ALS DQO.

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Laboratory Duplicate (DUP) Report

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Sub-Matrix: **Air**

					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*
Particulates (QC Lot: 1219960)											
VA23C6093-001	Partisol 1 077705-077729	Particulate, coarse	----	E886	0.050	mg/sample	0.120	0.127	0.007	Diff <2x LOR	----
		Particulate, fine	----	E886	0.050	mg/sample	0.077	0.063	0.013	Diff <2x LOR	----
		Particulate, PM10	----	E886	0.075	mg/sample	0.197	0.190	0.007	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: **Air**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Particulates (QCLot: 1219960)						
Particulate, coarse	----	E886	0.05	mg/sample	<0.050	----
Particulate, fine	----	E886	0.05	mg/sample	<0.050	----
Particulate, PM10	----	E886	0.075	mg/sample	<0.075	----

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C6093**	Page	: 1 of 6
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 30-Oct-2023 09:40
PO	: 15180	Issue Date	: 07-Nov-2023 11:02
C-O-C number	: 17-026		
Sampler	: BWG		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 4		
No. of samples analysed	: 4		

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DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

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Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate 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: **Air**

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
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM2.5 Partisol 1 - 077683-077717	EF005	23-Oct-2023	----	----	----		07-Nov-2023	----	15 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM2.5 Partisol 1 - 077691-077720	EF005	20-Oct-2023	----	----	----		07-Nov-2023	----	18 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM2.5 Partisol 1 - 077702-078155	EF005	17-Oct-2023	----	----	----		07-Nov-2023	----	20 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM2.5 Partisol 1 - 077705-077729	EF005	03-Oct-2023	----	----	----		07-Nov-2023	----	34 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM2.5 Partisol 1 - 077683-077717	E886	23-Oct-2023	----	----	----		02-Nov-2023	----	11 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM2.5 Partisol 1 - 077691-077720	E886	20-Oct-2023	----	----	----		02-Nov-2023	----	14 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM2.5 Partisol 1 - 077702-078155	E886	17-Oct-2023	----	----	----		02-Nov-2023	----	16 days	

Matrix: **Air**

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
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM2.5										
Partisol 1 - 077705-077729	E886	03-Oct-2023	----	----	----		02-Nov-2023	----	30 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: **Air**

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)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1219960	1	4	25.0	5.0	✓
Method Blanks (MB)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1219960	1	4	25.0	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
Particulates Dichotomous by Gravimetry (mg/sample)	E886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Particulates Dichotomous by Gravimetry (ug/m3)	EC886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Air Sampling Volume for Particulate (Dichotomous)	EF005 ALS Environmental - Vancouver	Air	Field measurements supplied by client	Field measurement of sampling volume provided by client and recorded on ALS report may affect the validity of results

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com — Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 026

Page 1 of 1

Report To	Contact and company name below will appear on the final report	Report Format / Distribution	Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)
Company:	Blackwater Gold Mine	Select Report Format: PDF ☑ EXCEL ☑ EDD (DIGITAL) ☑	Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:	Mark Warbanski	Quality Control (QC) Report with Report YES NO	PRIORITY (Business Days): 4 day [P4-20%] ☐ / 3 day [P3-25%] ☐ / 2 day [P2-50%] ☐
Phone:	778-818-0327	Compare Results to Criteria on Report - provide details below if box checked ☑	EMERGENCY: 1 Business day [E - 100%] ☐ / Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)]
	Company address below will appear on the final report	Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
Street:	101 - 139 1st Street East	Email 1 or Fax: Envirogeneral@artemisgoldinc.com	For tests that can not be performed according to the service level selected, you will be contacted.
City/Province:	Vanderhoof, BC	Email 2: Ktanaka@Artemisgoldinc.com	
Postal Code:	V0J 3A0	Email 3:	
Invoice To	Same as Report To ☐ NO ☑	Invoice Distribution	
	Copy of Invoice with Report ☐ NO ☑	Select Invoice Distribution: EMAIL ☑ MAIL ☐ FAX ☐	
Company:	Artemis Gold Inc	Email 1 or Fax: Accounts@artemisgoldinc.com	
Contact:	Accounts Payable	Email 2: mwarkbanski@artemisgoldinc.com	

Project Information

ALS Account # / Quote #:	
Job #:	
PO / AFE:	15160
LSD:	
ALS Lab Work Order # (lab use only):	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#:
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	
ALS Contact: Amber Springer	Sampler: BWG

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Filter Numbers	Total Vol. (m3)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10	HOLD
	Partisol1	077705-077729	21.6 , 2.4	3-Oct-23	23:59:00	AA	2	R	R	
	Partisol1	077702-078155	21.6, 2.4	17-Oct-23	23:59	AA	2	R	R	
	Partisol1	077691-077720	21.6, 2.41	20-Oct-23	24:00:00	AA	2	R	R	
	Partisol1	077683-077717	21.6, 2.41	23-Oct-23	24:00:00	AA	2	R	R	

(see Special Instructions)

Environmental Division
Vancouver
Work Order Reference
VA23C6093

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? YES ☐ NO ☐

Are samples for human consumption/ use? YES ☐ NO ☐

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Please upload to EMS, EMS ID E331131

Time = Total Time Sampled

PM2.5 Filter is Listed First in the Pair, PM10 is the Last Filter The first volume is PM2.5, the second is PM10

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	☐	SIF Observations	Yes ☐	No	☐
Ice Packs	☑ Ice Cubes ☐	Custody seal intact	Yes ☐	No	☐
Cooling Initiated	☐				

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
			6		

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: Jeremie Roy	Date: Oct 26, 2023	Time: 11:00	Received by:	Date:	Time:	Received by: AB	Date: 10/30/23	Time: 9:24 am

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.

NOV 2015 FRONT

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C7468**	Page	: 1 of 3
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 15-Nov-2023 10:30
PO	: 15180	Date Analysis Commenced	: 21-Nov-2023
C-O-C number	: 17-031	Issue Date	: 22-Nov-2023 17:17
Sampler	: BWG		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Kaitlyn Gardner	Account Manager Assistant	Administration, 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*
µg/m³	micrograms per cubic metre
L	litres
mg/sample	milligrams per sample

<: 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: **Filter Cassette** (Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Partisol1	----	----	----	----
					Client sampling date / time: 08-Nov-2023 23:59	----	----	----	----
					VA23C7468-001	--------	--------	--------	--------
					Result	----	----	----	----
Field Tests									
Air volume, field, coarse particulate	----	EF005/VA	0.010	L	2400	----	----	----	----
Air volume, field, fine particulate	----	EF005/VA	0.010	L	21600	----	----	----	----
Particulates									
Particulate, coarse	----	EC886/VA	2.0	µg/m³	<2.0	----	----	----	----
Particulate, fine	----	EC886/VA	2.0	µg/m³	<2.3	----	----	----	----
Particulate, PM10	----	EC886/VA	3.0	µg/m³	<3.0	----	----	----	----
Particulate, PM2.5	----	EC886/VA	2.0	µg/m³	<2.3	----	----	----	----
Particulate, coarse	----	E886/VA	0.050	mg/sample	<0.050	----	----	----	----
Particulate, fine	----	E886/VA	0.050	mg/sample	<0.050	----	----	----	----
Particulate, PM10	----	E886/VA	0.075	mg/sample	<0.075	----	----	----	----
Particulate, PM2.5	----	E886/VA	0.050	mg/sample	<0.050	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23C7468**	Page	: 1 of 3
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 15-Nov-2023 10:30
PO	: 15180	Date Analysis Commenced	: 21-Nov-2023
C-O-C number	: 17-031	Issue Date	: 22-Nov-2023 17:17
Sampler	: BWG ----		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Method Blank (MB) 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*
Kaitlyn Gardner	Account Manager Assistant	Vancouver Administration, 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: **Air**

					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*
Particulates (QC Lot: 1248270)											
VA23C7468-001	Partisol1	Particulate, coarse	----	E886	0.050	mg/sample	<0.050	<0.050	0	Diff <2x LOR	----
		Particulate, fine	----	E886	0.050	mg/sample	<0.050	<0.050	0	Diff <2x LOR	----
		Particulate, PM10	----	E886	0.075	mg/sample	<0.075	<0.075	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: **Air**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Particulates (QCLot: 1248270)						
Particulate, coarse	----	E886	0.05	mg/sample	<0.050	----
Particulate, fine	----	E886	0.05	mg/sample	<0.050	----
Particulate, PM10	----	E886	0.075	mg/sample	<0.075	----

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C7468**	Page	: 1 of 5
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 15-Nov-2023 10:30
PO	: 15180	Issue Date	: 22-Nov-2023 17:17
C-O-C number	: 17-031		
Sampler	: BWG		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

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 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: **Air**

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*	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM2.5 Partisol1	EF005	08-Nov-2023	----	----	----		21-Nov-2023	----	13 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM2.5 Partisol1	E886	08-Nov-2023	----	----	----		22-Nov-2023	----	13 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: **Air**

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)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1248270	1	1	100.0	5.0	✓
Method Blanks (MB)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1248270	1	1	100.0	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
Particulates Dichotomous by Gravimetry (mg/sample)	E886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Particulates Dichotomous by Gravimetry (ug/m3)	EC886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Air Sampling Volume for Particulate (Dichotomous)	EF005 ALS Environmental - Vancouver	Air	Field measurements supplied by client	Field measurement of sampling volume provided by client and recorded on ALS report may affect the validity of results

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com — Canada Toll Free: 1 800 668 9378

Affix ALS barcode label here (lab use only)

COC Number: 17 - 031

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Mark Warbanski
Phone:	778-818-0327
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ NO ☑
	Copy of Invoice with Report ☐ NO ☑
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

Select Report Format: PDF ☑ EXCEL ☑ EDD (DIGITAL) ☑

Quality Control (QC) Report with Report YES NO

Compare Results to Criteria on Report - provide details below if box checked ☑

Select Distribution: ☑ EMAIL MAIL FAX

Email 1 or Fax: Envirogeneral@artemisgoldinc.com

Email 2: Ktanaka@Artemisgoldinc.com

Email 3:

Invoice Distribution

Select Invoice Distribution: EMAIL ☑ MAIL FAX ☐ ☐

Email 1 or Fax: Accounts@artemisgoldinc.com

Email 2: mwarbanski@artemisgoldinc.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

Priority (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

Emergency: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information

ALS Account # / Quote #:	
Job #:	
PO / AFE:	15180
LSD:	
ALS Lab Work Order # (lab use only):	C7468

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Contact: Amber Springer — Sampler: BWG

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Filter Numbers	Total Vol. (m3)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	Partisol1	77689-77686	21.6, 2.4	8-Nov-23	23:59:00	AA	2	R	R		

Environmental Division
Vancouver
Work Order Reference
VA23C7468

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? YES ☐ NO ☐

Are samples for human consumption/ use? YES ☐ NO ☐

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Please upload to EMS, EMS ID E331131
Time = Total Time Sampled
PM2.5 Filter is Listed First in the Pair, PM10 is the Last Filter The first volume is PM2.5, the second is PM10

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☑ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
						8	

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date: November 13, 2023	Time:	Received by:	Date:	Time:	Received by: JC	Date: 15-11-23	Time: 1030

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.

NOV 2018 FRONT

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C8198**	Page	: 1 of 3
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 23-Nov-2023 10:10
PO	: 15180	Date Analysis Commenced	: 27-Nov-2023
C-O-C number	: 17-033	Issue Date	: 30-Nov-2023 17:21
Sampler	: BWG		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 2		
No. of samples analysed	: 2		

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*
Brieanna Allen	Production/Validation Manager	Inorganics, Burnaby, British Columbia
Kaitlyn Gardner	Account Manager Assistant	Administration, 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*
µg/m³	micrograms per cubic metre
L	litres
mg/sample	milligrams per sample

<: 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: **Filter Cassette**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Partisol1 77688-77704	Partisol1 77687-77682	----	----	----
					Client sampling date / time	14-Nov-2023 00:00	20-Nov-2023 00:00	----	----	----
						VA23C8198-001	VA23C8198-002	--------	--------	--------
						Result	Result	----	----	----
Field Tests										
Air volume, field, coarse particulate	----	EF005/VA	0.010	L		2410	2410	----	----	----
Air volume, field, fine particulate	----	EF005/VA	0.010	L		21600	21600	----	----	----
Particulates										
Particulate, coarse	----	EC886/VA	2.0	µg/m³		7.0	54.1	----	----	----
Particulate, fine	----	EC886/VA	2.0	µg/m³		<2.3	<2.3	----	----	----
Particulate, PM10	----	EC886/VA	3.0	µg/m³		7.0	54.1	----	----	----
Particulate, PM2.5	----	EC886/VA	2.0	µg/m³		<2.3	<2.3	----	----	----
Particulate, coarse	----	E886/VA	0.050	mg/sample		0.167	1.30	----	----	----
Particulate, fine	----	E886/VA	0.050	mg/sample		<0.050	<0.050	----	----	----
Particulate, PM10	----	E886/VA	0.075	mg/sample		0.167	1.30	----	----	----
Particulate, PM2.5	----	E886/VA	0.050	mg/sample		<0.050	<0.050	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23C8198**	Page	: 1 of 3
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 23-Nov-2023 10:10
PO	: 15180	Date Analysis Commenced	: 27-Nov-2023
C-O-C number	: 17-033	Issue Date	: 30-Nov-2023 17:21
Sampler	: BWG ----		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 2		
No. of samples analysed	: 2		

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
- Method Blank (MB) 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*
Brieanna Allen	Production/Validation Manager	Vancouver Inorganics, Burnaby, British Columbia
Kaitlyn Gardner	Account Manager Assistant	Vancouver Administration, 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: **Air**

					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*
Particulates (QC Lot: 1259045)											
VA23C8198-001	Partisol1 77688-77704	Particulate, coarse	----	E886	0.050	mg/sample	0.167	0.163	0.003	Diff <2x LOR	----
		Particulate, fine	----	E886	0.050	mg/sample	<0.050	<0.050	0	Diff <2x LOR	----
		Particulate, PM10	----	E886	0.075	mg/sample	0.167	0.163	0.004	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: **Air**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Particulates (QCLot: 1259045)						
Particulate, coarse	----	E886	0.05	mg/sample	<0.050	----
Particulate, fine	----	E886	0.05	mg/sample	<0.050	----
Particulate, PM10	----	E886	0.075	mg/sample	<0.075	----

ALS Canada Ltd.

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right partner.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C8198**	Page	: 1 of 5
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 23-Nov-2023 10:10
PO	: 15180	Issue Date	: 30-Nov-2023 17:21
C-O-C number	: 17-033		
Sampler	: BWG		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 2		
No. of samples analysed	: 2		

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 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: **Air**

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*
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM2.5 Partisol1 - 77688-77704	EF005	14-Nov-2023	----	----	----		27-Nov-2023	----	13 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM2.5 Partisol1 - 77687-77682	EF005	20-Nov-2023	----	----	----		27-Nov-2023	----	7 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM2.5 Partisol1 - 77687-77682	E886	20-Nov-2023	----	----	----		30-Nov-2023	----	10 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM2.5 Partisol1 - 77688-77704	E886	14-Nov-2023	----	----	----		30-Nov-2023	----	16 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: **Air**

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)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1259045	1	2	50.0	5.0	✓
Method Blanks (MB)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1259045	1	2	50.0	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
Particulates Dichotomous by Gravimetry (mg/sample)	E886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Particulates Dichotomous by Gravimetry (ug/m3)	EC886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Air Sampling Volume for Particulate (Dichotomous)	EF005 ALS Environmental - Vancouver	Air	Field measurements supplied by client	Field measurement of sampling volume provided by client and recorded on ALS report may affect the validity of results

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 033

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Mark Warbanski
Phone:	778-818-0327
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ NO ☑
	Copy of Invoice with Report ☐ NO ☑
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

Select Report Format: PDF ☑ EXCEL ☑ EDD (DIGITAL) ☑

Quality Control (QC) Report with Report YES NO

Compare Results to Criteria on Report - provide details below if box checked ☑

Select Distribution: ☑ EMAIL MAIL FAX

Email 1 or Fax: Envirogeneral@artemisgoldinc.com

Email 2: Ktanaka@Artemisgoldinc.com

Email 3:

Invoice Distribution

Select Invoice Distribution: EMAIL ☑ MAIL FAX ☐ ☐

Email 1 or Fax: Accounts@artemisgoldinc.com

Email 2: mwarkbanski@artemisgoldinc.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days):
- 4 day [P4-20%] ☐
- 3 day [P3-25%] ☐
- 2 day [P2-50%] ☐

EMERGENCY:
- 1 Business day [E - 100%] ☐
- Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information

ALS Account # / Quote #:	
Job #:	
PO / AFE:	15180
LSD:	
ALS Lab Work Order # (lab use only):	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#:
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	
ALS Contact: Amber Springer	Sampler: BWG

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Filter Numbers	Total Vol. (m3)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	Partisol1	77688, 77704	21.6, 2.41	14-Nov-23	24:00:00	AA	2	R	R		
	Partisol1	77687, 77682	21.6, 2.41	20-Nov-23	24:00:00	AA	2	R	R		

Environmental Division
Vancouver
Work Order Reference
VA23C8198

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? YES ☐ NO ☐

Are samples for human consumption/ use? YES ☐ NO ☐

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Please upload to EMS, EMS ID E331131
Time = Total Time Sampled
PM2.5 Filter is Listed First in the Pair, PM10 is the Last Filter The first volume is PM2.5, the second is PM10

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☑ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				6			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date: November 21, 2023	Time:	Received by:	Date:	Time:	Received by: JC	Date: 23-11-23	Time: 1010

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.

NOV 20 2 FRONT

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C8783**	Page	: 1 of 3
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 29-Nov-2023 13:50
PO	: 15180	Date Analysis Commenced	: 01-Dec-2023
C-O-C number	: 17-033	Issue Date	: 06-Dec-2023 10:25
Sampler	: BWG		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Caitlin Macey	Team Leader - Inorganics	Inorganics, Burnaby, British Columbia
Kaitlyn Gardner	Account Manager Assistant	Administration, 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*
µg/m³	micrograms per cubic metre
L	litres
mg/sample	milligrams per sample

<: 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: **Air**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Partisol1 77703-77725	----	----	----	----
					Client sampling date / time: 26-Nov-2023 00:00	----	----	----	----
					VA23C8783-001	--------	--------	--------	--------
					Result	----	----	----	----
Field Tests									
Air volume, field, coarse particulate	----	EF005/VA	0.010	L	2410	----	----	----	----
Air volume, field, fine particulate	----	EF005/VA	0.010	L	21600	----	----	----	----
Particulates									
Particulate, coarse	----	EC886/VA	2.0	µg/m³	<2.0	----	----	----	----
Particulate, fine	----	EC886/VA	2.0	µg/m³	3.4	----	----	----	----
Particulate, PM10	----	EC886/VA	3.0	µg/m³	3.4	----	----	----	----
Particulate, PM2.5	----	EC886/VA	2.0	µg/m³	3.4	----	----	----	----
Particulate, coarse	----	E886/VA	0.050	mg/sample	<0.050	----	----	----	----
Particulate, fine	----	E886/VA	0.050	mg/sample	0.073	----	----	----	----
Particulate, PM10	----	E886/VA	0.075	mg/sample	<0.075	----	----	----	----
Particulate, PM2.5	----	E886/VA	0.050	mg/sample	0.073	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23C8783**	Page	: 1 of 3
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 29-Nov-2023 13:50
PO	: 15180	Date Analysis Commenced	: 01-Dec-2023
C-O-C number	: 17-033	Issue Date	: 06-Dec-2023 10:25
Sampler	: BWG ----		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Method Blank (MB) 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*
Caitlin Macey	Team Leader - Inorganics	Vancouver Inorganics, Burnaby, British Columbia
Kaitlyn Gardner	Account Manager Assistant	Vancouver Administration, 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: **Air**

					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*
Particulates (QC Lot: 1264669)											
VA23C8783-001	Partisol1 77703-77725	Particulate, coarse	----	E886	0.050	mg/sample	<0.050	<0.050	0	Diff <2x LOR	----
		Particulate, fine	----	E886	0.050	mg/sample	0.073	0.067	0.007	Diff <2x LOR	----
		Particulate, PM10	----	E886	0.075	mg/sample	<0.075	<0.075	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: **Air**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Particulates (QCLot: 1264669)						
Particulate, coarse	----	E886	0.05	mg/sample	<0.050	----
Particulate, fine	----	E886	0.05	mg/sample	<0.050	----
Particulate, PM10	----	E886	0.075	mg/sample	<0.075	----

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C8783**	Page	: 1 of 5
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 29-Nov-2023 13:50
PO	: 15180	Issue Date	: 06-Dec-2023 10:25
C-O-C number	: 17-033		
Sampler	: BWG		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

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 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: **Air**

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*	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
Partisol1 - 77703-77725	EF005	26-Nov-2023	----	----	----		01-Dec-2023	----	5 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Cassette										
Partisol1 - 77703-77725	E886	26-Nov-2023	----	----	----		05-Dec-2023	----	9 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: **Air**

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)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1264669	1	1	100.0	5.0	✓
Method Blanks (MB)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1264669	1	1	100.0	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
Particulates Dichotomous by Gravimetry (mg/sample)	E886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Particulates Dichotomous by Gravimetry (ug/m3)	EC886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Air Sampling Volume for Particulate (Dichotomous)	EF005 ALS Environmental - Vancouver	Air	Field measurements supplied by client	Field measurement of sampling volume provided by client and recorded on ALS report may affect the validity of results

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 033

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Mark Warbanski
Phone:	778-818-0327
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To (YES / NO)
	Copy of Invoice with Report (YES / NO)
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

Select Report Format: PDF / EXCEL / DD (DIGITAL)

Quality Control (QC) Report with Report (YES / NO)

Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: EMAIL / MAIL / FAX

Email 1 or Fax: Envirogeneral@artemisgoldinc.com

Email 2: Ktanaka@Artemisgoldinc.com

Email 3

Invoice Distribution

Select Invoice Distribution: EMAIL / MAIL / FAX

Email 1 or Fax: Accounts@artemisgoldinc.com

Email 2: mwarkbanski@artemisgoldinc.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] (Standard TAT if received by 3 pm - business days - no surcharges apply)

PRIORITY (Business Days):
- 4 day [P4-20%]
- 3 day [P3-25%]
- 2 day [P2-50%]

EMERGENCY:
- 1 Business day [E - 100%]
- Same Day, Weekend or Statutory holiday [E2 -200%
- (Laboratory opening fees may apply)]

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information

ALS Account # / Quote #:	
Job #:	
PO / AFE:	15180
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#:
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer

Sampler: BWG

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Filter Numbers	Total Vol. (m3)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	Partisol1	77703, 77725	21.6, 2.41	26-Nov-23	24:00:00	AA	2	R	R		

Environmental Division
Vancouver
Work Order Reference
VA23C8783

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? YES / NO

Are samples for human consumption/ use? YES / NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Please upload to EMS, EMS ID E331131
Time = Total Time Sampled
PM2.5 Filter is Listed First in the Pair, PM10 is the Last Filter The first volume is PM2.5, the second is PM10

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	☐	SIF Observations	Yes ☐	No ☐
Ice Packs	☑ Ice Cubes ☐	Custody seal intact	Yes ☐	No ☐
Cooling Initiated	☐			

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				2			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: Jeremie Roy	Date: November 28, 2023	Time: 8:29	Received by:	Date:	Time:	Received by: JC	Date: 29-11-23	Time: 1350

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.

NOV 2015 FRONT

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C9504**	Page	: 1 of 3
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 07-Dec-2023 10:30
PO	: 15180	Date Analysis Commenced	: 11-Dec-2023
C-O-C number	: ----	Issue Date	: 14-Dec-2023 15:51
Sampler	: BWG		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Brieanna Allen	Production/Validation Manager	Inorganics, Burnaby, British Columbia
Kaitlyn Gardner	Account Manager Assistant	Administration, 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*
µg/m³	micrograms per cubic metre
L	litres
mg/sample	milligrams per sample

<: 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: **Air**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Partisol1 77699-77723	----	----	----	----
					Client sampling date / time: 03-Dec-2023 00:00	----	----	----	----
					VA23C9504-001	--------	--------	--------	--------
					Result	----	----	----	----
Field Tests									
Air volume, field, coarse particulate	----	EF005/VA	0.010	L	2410	----	----	----	----
Air volume, field, fine particulate	----	EF005/VA	0.010	L	26100	----	----	----	----
Particulates									
Particulate, coarse	----	EC886/VA	2.0	µg/m³	<2.0	----	----	----	----
Particulate, fine	----	EC886/VA	2.0	µg/m³	<2.0	----	----	----	----
Particulate, PM10	----	EC886/VA	3.0	µg/m³	<3.0	----	----	----	----
Particulate, PM2.5	----	EC886/VA	2.0	µg/m³	<2.0	----	----	----	----
Particulate, coarse	----	E886/VA	0.050	mg/sample	<0.050	----	----	----	----
Particulate, fine	----	E886/VA	0.050	mg/sample	<0.050	----	----	----	----
Particulate, PM10	----	E886/VA	0.075	mg/sample	<0.075	----	----	----	----
Particulate, PM2.5	----	E886/VA	0.050	mg/sample	<0.050	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23C9504**	Page	: 1 of 3
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 07-Dec-2023 10:30
PO	: 15180	Date Analysis Commenced	: 11-Dec-2023
C-O-C number	: ----	Issue Date	: 14-Dec-2023 15:51
Sampler	: BWG ----		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Method Blank (MB) 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*
Brieanna Allen	Production/Validation Manager	Vancouver Inorganics, Burnaby, British Columbia
Kaitlyn Gardner	Account Manager Assistant	Vancouver Administration, 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.
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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: **Air**

					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*
Particulates (QC Lot: 1276963)											
VA23C9504-001	Partisol1 77699-77723	Particulate, coarse	----	E886	0.050	mg/sample	<0.050	<0.050	0	Diff <2x LOR	----
		Particulate, fine	----	E886	0.050	mg/sample	<0.050	<0.050	0	Diff <2x LOR	----
		Particulate, PM10	----	E886	0.075	mg/sample	<0.075	<0.075	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: **Air**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Particulates (QCLot: 1276963)						
Particulate, coarse	----	E886	0.05	mg/sample	<0.050	----
Particulate, fine	----	E886	0.05	mg/sample	<0.050	----
Particulate, PM10	----	E886	0.075	mg/sample	<0.075	----

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C9504**	Page	: 1 of 5
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 07-Dec-2023 10:30
PO	: 15180	Issue Date	: 14-Dec-2023 15:52
C-O-C number	: ----		
Sampler	: BWG		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

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 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: **Air**

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*	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
Partisol1 - 77699-77723	EF005	03-Dec-2023	----	----	----		11-Dec-2023	----	8 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Cassette										
Partisol1 - 77699-77723	E886	03-Dec-2023	----	----	----		14-Dec-2023	----	11 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: **Air**

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)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1276963	1	1	100.0	5.0	✓
Method Blanks (MB)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1276963	1	1	100.0	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
Particulates Dichotomous by Gravimetry (mg/sample)	E886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Particulates Dichotomous by Gravimetry (ug/m3)	EC886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Air Sampling Volume for Particulate (Dichotomous)	EF005 ALS Environmental - Vancouver	Air	Field measurements supplied by client	Field measurement of sampling volume provided by client and recorded on ALS report may affect the validity of results

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com — Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 037

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Mark Warbanski
Phone:	778-818-0327
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To YES ☐ NO ☑
	Copy of Invoice with Report YES ☐ NO ☑
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

Select Report Format: PDF ☑ EXCEL ☑ EDD (DIGITAL) ☑

Quality Control (QC) Report with Report YES NO

Compare Results to Criteria on Report - provide details below if box checked ☑

Select Distribution: ☑ EMAIL MAIL FAX

Email 1 or Fax: Envirogeneral@artemisgoldinc.com

Email 2: Ktanaka@Artemisgoldinc.com

Email 3:

Invoice Distribution

Select Invoice Distribution: EMAIL ☑ MAIL FAX ☐ ☐

Email 1 or Fax: Accounts@artemisgoldinc.com

Email 2: mwarkbanski@artemisgoldinc.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information

ALS Account # / Quote #:	
Job #:	
PO / AFE:	15180
LSD:	
ALS Lab Work Order # (lab use only):	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Contact: Amber Springer — Sampler: BWG

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Filter Numbers	Total Vol. (m3)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10	SUSPECTED HAZARD (see Special Instructions)
	Partisol1	77699, 77723	26.1, 2.41	2-Dec-23	24:00	AA	2	R	R	

Environmental Division
Vancouver
Work Order Reference
VA23C9504

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? YES ☐ NO ☐

Are samples for human consumption/ use? YES ☐ NO ☐

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Please upload to EMS, EMS ID E331131
Time = Total Time Sampled
PM2.5 Filter is Listed First in the Pair, PM10 is the Last Filter The first volume is PM2.5, the second is PM10

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
							2

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: Jeremie Roy	Date: December 5th, 2023	Time:	Received by:	Date:	Time:	Received by: JC	Date: 7/12/23	Time: 1030am

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.

CERTIFICATE OF ANALYSIS

Work Order	: **VA23D0081**	Page	: 1 of 3
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 14-Dec-2023 10:40
PO	: 15180	Date Analysis Commenced	: 15-Dec-2023
C-O-C number	: ----	Issue Date	: 20-Dec-2023 09:59
Sampler	: BWG		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Caitlin Macey	Team Leader - Inorganics	Inorganics, Burnaby, British Columbia
Kaitlyn Gardner	Account Manager Assistant	Administration, 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*
µg/m³	micrograms per cubic metre
L	litres
mg/sample	milligrams per sample

<: 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: **Air**
(Matrix: **Air**)

					Client sample ID	Partisol1 77696-777684	----	----	----	----
					Client sampling date / time	08-Dec-2023 00:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA23D0081-001	--------	--------	--------	--------
						Result	----	----	----	----
Field Tests										
Air volume, field, coarse particulate	----	EF005/VA	0.010	L		2410	----	----	----	----
Air volume, field, fine particulate	----	EF005/VA	0.010	L		21600	----	----	----	----
Particulates										
Particulate, coarse	----	EC886/VA	2.0	µg/m³		3.1	----	----	----	----
Particulate, fine	----	EC886/VA	2.0	µg/m³		2.4	----	----	----	----
Particulate, PM10	----	EC886/VA	3.0	µg/m³		5.5	----	----	----	----
Particulate, PM2.5	----	EC886/VA	2.0	µg/m³		2.4	----	----	----	----
Particulate, coarse	----	E886/VA	0.050	mg/sample		0.080	----	----	----	----
Particulate, fine	----	E886/VA	0.050	mg/sample		0.053	----	----	----	----
Particulate, PM10	----	E886/VA	0.075	mg/sample		0.133	----	----	----	----
Particulate, PM2.5	----	E886/VA	0.050	mg/sample		0.053	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23D0081**	Page	: 1 of 3
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 14-Dec-2023 10:40
PO	: 15180	Date Analysis Commenced	: 15-Dec-2023
C-O-C number	: ----	Issue Date	: 20-Dec-2023 10:00
Sampler	: BWG ----		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Method Blank (MB) 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*
Caitlin Macey	Team Leader - Inorganics	Vancouver Inorganics, Burnaby, British Columbia
Kaitlyn Gardner	Account Manager Assistant	Vancouver Administration, 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: **Air**

					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*
Particulates (QC Lot: 1282535)											
VA23D0081-001	Partisol1 77696-777684	Particulate, coarse	----	E886	0.050	mg/sample	0.080	0.073	0.007	Diff <2x LOR	----
		Particulate, fine	----	E886	0.050	mg/sample	0.053	0.060	0.007	Diff <2x LOR	----
		Particulate, PM10	----	E886	0.075	mg/sample	0.133	0.133	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: **Air**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Particulates (QCLot: 1282535)						
Particulate, coarse	----	E886	0.05	mg/sample	<0.050	----
Particulate, fine	----	E886	0.05	mg/sample	<0.050	----
Particulate, PM10	----	E886	0.075	mg/sample	<0.075	----

ALS Canada Ltd.

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right partner.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23D0081**	Page	: 1 of 5
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 14-Dec-2023 10:40
PO	: 15180	Issue Date	: 20-Dec-2023 10:00
C-O-C number	: ----		
Sampler	: BWG		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

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 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: **Air**

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*	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
M5/M29 : Quartz Filter										
Partisol1 - 77696-777684	EF005	08-Dec-2023	----	----	----		15-Dec-2023	----	7 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Cassette										
Partisol1 - 77696-777684	E886	08-Dec-2023	----	----	----		19-Dec-2023	----	11 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: **Air**

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)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1282535	1	1	100.0	5.0	✓
Method Blanks (MB)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1282535	1	1	100.0	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
Particulates Dichotomous by Gravimetry (mg/sample)	E886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Particulates Dichotomous by Gravimetry (ug/m3)	EC886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Air Sampling Volume for Particulate (Dichotomous)	EF005 ALS Environmental - Vancouver	Air	Field measurements supplied by client	Field measurement of sampling volume provided by client and recorded on ALS report may affect the validity of results

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com — Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 039

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Mark Warbanski
Phone:	778-818-0327
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ NO ☑
	Copy of Invoice with Report ☐ NO ☑
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

Select Report Format: PDF ☑ EXCEL ☑ DIGITAL ☑

Quality Control (QC) Report with Report YES ☑ NO

Compare Results to Criteria on Report - provide details below if box checked ☑

Select Distribution: ☑ EMAIL MAIL FAX

Email 1 or Fax: Envirogeneral@artemisgoldinc.com

Email 2: Klanaka@Artemisgoldinc.com

Email 3:

Invoice Distribution

Select Invoice Distribution: EMAIL ☑ MAIL FAX ☐ ☐

Email 1 or Fax: Accounts@artemisgoldinc.com

Email 2: mwarkbanski@artemisgoldinc.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - Business days - no surcharges apply

PRIORITY (Business Days)
- 4 day [P4-20%] ☐
- 3 day [P3-25%] ☐
- 2 day [P2-50%] ☐

EMERGENCY
- 1 Business day [E - 100%] ☐
- Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information

ALS Account # / Quote #:	
Job #:	
PO / AFE:	15180
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#:
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer

Sampler: BWG

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Filter Numbers	Total Vol. (m3)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10	HOLD	SUSPECTED HAZARD (see Special Instructions)
	Partisol1	77696, 777684	21.6, 2.41	8-Dec-23	24:00:00	AA	2	R	R		

Environmental Division
Vancouver
Work Order Reference
VA23D0081

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? YES ☐ NO ☐

Are samples for human consumption/ use? YES ☐ NO ☐

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Please upload to EMS, EMS ID E331131
Time = Total Time Sampled
PM2.5 Filter is Listed First in the Pair, PM10 is the Last Filter The first volume is PM2.5, the second is PM10

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date: December 12, 2023	Time: 11:47	Received by:	Date:	Time:	Received by: JC	Date: 14/12/23	Time: 1040am

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.

NOV 2018 FRONT

CERTIFICATE OF ANALYSIS

Work Order	: **VA23D0617**	Page	: 1 of 3
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 21-Dec-2023 10:30
PO	: 15180	Date Analysis Commenced	: 02-Jan-2024
C-O-C number	: 17-041	Issue Date	: 02-Jan-2024 15:17
Sampler	: BWG		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Kaitlyn Gardner	Account Manager Assistant	Administration, Burnaby, British Columbia
Kate Dimitrova	Supervisor - Inorganic	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*
µg/m³	micrograms per cubic metre
L	litres
mg/sample	milligrams per sample

<: 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: **Filter Cassette**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Partisol1 77695-76461	----	----	----	----
					Client sampling date / time: 14-Dec-2023 00:00	----	----	----	----
					VA23D0617-001	--------	--------	--------	--------
					Result	----	----	----	----
Field Tests									
Air volume, field, coarse particulate	----	EF005/VA	0.010	L	2410	----	----	----	----
Air volume, field, fine particulate	----	EF005/VA	0.010	L	21600	----	----	----	----
Particulates									
Particulate, coarse	----	EC886/VA	2.0	µg/m³	<2.0	----	----	----	----
Particulate, fine	----	EC886/VA	2.0	µg/m³	<2.3	----	----	----	----
Particulate, PM10	----	EC886/VA	3.0	µg/m³	<3.0	----	----	----	----
Particulate, PM2.5	----	EC886/VA	2.0	µg/m³	<2.3	----	----	----	----
Particulate, coarse	----	E886/VA	0.050	mg/sample	<0.050	----	----	----	----
Particulate, fine	----	E886/VA	0.050	mg/sample	<0.050	----	----	----	----
Particulate, PM10	----	E886/VA	0.075	mg/sample	<0.075	----	----	----	----
Particulate, PM2.5	----	E886/VA	0.050	mg/sample	<0.050	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23D0617**	Page	: 1 of 3
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 21-Dec-2023 10:30
PO	: 15180	Date Analysis Commenced	: 02-Jan-2024
C-O-C number	: 17-041	Issue Date	: 02-Jan-2024 15:17
Sampler	: BWG ----		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Method Blank (MB) 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*
Kaitlyn Gardner	Account Manager Assistant	Vancouver Administration, Burnaby, British Columbia
Kate Dimitrova	Supervisor - Inorganic	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: **Air**

					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*
Particulates (QC Lot: 1292124)											
VA23D0617-001	Partisol1 77695-76461	Particulate, coarse	----	E886	0.050	mg/sample	<0.050	<0.050	0	Diff <2x LOR	----
		Particulate, fine	----	E886	0.050	mg/sample	<0.050	<0.050	0	Diff <2x LOR	----
		Particulate, PM10	----	E886	0.075	mg/sample	<0.075	<0.075	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: **Air**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Particulates (QCLot: 1292124)						
Particulate, coarse	----	E886	0.05	mg/sample	<0.050	----
Particulate, fine	----	E886	0.05	mg/sample	<0.050	----
Particulate, PM10	----	E886	0.075	mg/sample	<0.075	----

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23D0617**	Page	: 1 of 5
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 21-Dec-2023 10:30
PO	: 15180	Issue Date	: 02-Jan-2024 15:18
C-O-C number	: 17-041		
Sampler	: BWG		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

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 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: **Air**

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*	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Cassette										
Partisol1 - 77695-76461	EF005	14-Dec-2023	----	----	----		02-Jan-2024	----	19 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Cassette										
Partisol1 - 77695-76461	E886	14-Dec-2023	----	----	----		02-Jan-2024	----	19 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: **Air**

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)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1292124	1	1	100.0	5.0	✓
Method Blanks (MB)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1292124	1	1	100.0	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
Particulates Dichotomous by Gravimetry (mg/sample)	E886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Particulates Dichotomous by Gravimetry (ug/m3)	EC886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Air Sampling Volume for Particulate (Dichotomous)	EF005 ALS Environmental - Vancouver	Air	Field measurements supplied by client	Field measurement of sampling volume provided by client and recorded on ALS report may affect the validity of results

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com — Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 041

Page 1 of 1

Report To	Contact and company name below will appear on the final report	Report Format / Distribution	Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)
Company:	Blackwater Gold Mine	Select Report Format: PDF ☑ EXCEL ☑ EDD (DIGITAL) ☑	Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:	Mark Warbanski	Quality Control (QC) Report with Report YES NO	PRIORITY (Business Days): 4 day [P4-20%] ☐ / 3 day [P3-25%] ☐ / 2 day [P2-50%] ☐
Phone:	778-818-0327	Compare Results to Criteria on Report - provide details below if box checked ☑	EMERGENCY: 1 Business day [E - 100%] ☐ / Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)]
	Company address below will appear on the final report	Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Street:	101 - 139 1st Street East	Email 1 or Fax: Envirogeneral@artemisgoldinc.com	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
City/Province:	Vanderhoof, BC	Email 2: Ktanaka@Artemisgoldinc.com	For tests that can not be performed according to the service level selected, you will be contacted.
Postal Code:	V0J 3A0	Email 3:	
Invoice To	Same as Report To ☐ NO ☑	Invoice Distribution	Analysis Request
	Copy of Invoice with Report ☐ NO ☑	Select Invoice Distribution: EMAIL ☑ MAIL ☐ FAX ☐	
Company:	Artemis Gold Inc	Email 1 or Fax: Accounts@artemisgoldinc.com	
Contact:	Accounts Payable	Email 2: mwarkbanski@artemisgoldinc.com	

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:		Major/Minor Code:	Routing Code:
PO / AFE:	15180	Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):	D0617	ALS Contact: Amber Springer	Sampler: BWG

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Filter Numbers	Total Vol. (m3)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	Partisol1	77695, 76461	21.6, 2.41	14-Dec-23	24:00:00	AA	2	R	R		

Environmental Division
Vancouver
Work Order Reference
VA23D0617

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? YES ☐ NO ☐ Are samples for human consumption/ use? YES ☐ NO ☐	Please upload to EMS, EMS ID E331131 Time = Total Time Sampled PM2.5 Filter is Listed First in the Pair, PM10 is the Last Filter The first volume is PM2.5, the second is PM10

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
							13

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date: December 19, 2023	Time:	Received by:	Date:	Time:	Received by: UR	Date: 12/21/23	Time: 1030hrs

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.

CERTIFICATE OF ANALYSIS

Work Order	: **VA24A0171**	Page	: 1 of 3
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 03-Jan-2024 09:40
PO	: 15180	Date Analysis Commenced	: 05-Jan-2024
C-O-C number	: 17-044	Issue Date	: 09-Jan-2024 10:11
Sampler	: ----		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 2		
No. of samples analysed	: 2		

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- Analytical Results

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Signatories	*Position*	*Laboratory Department*
Kaitlyn Gardner	Account Manager Assistant	Administration, Burnaby, British Columbia
Kate Dimitrova	Supervisor - Inorganic	Inorganics, Burnaby, British Columbia

General Comments

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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*
µg/m³	micrograms per cubic metre
L	litres
mg/sample	milligrams per sample

<: 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: **Filter Cassette**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Partisol1	Partisol1	----	----	----
					Client sampling date / time	20-Dec-2023 00:00	26-Dec-2023 00:00	----	----	----
						VA24A0171-001	VA24A0171-002	--------	--------	--------
						Result	Result	----	----	----
Field Tests										
Air volume, field, coarse particulate	----	EF005/VA	0.010	L		2410	2410	----	----	----
Air volume, field, fine particulate	----	EF005/VA	0.010	L		21600	21600	----	----	----
Particulates										
Particulate, coarse	----	EC886/VA	2.0	µg/m³		<2.0	<2.0	----	----	----
Particulate, fine	----	EC886/VA	2.0	µg/m³		<2.3	<2.3	----	----	----
Particulate, PM10	----	EC886/VA	3.0	µg/m³		<3.0	<3.0	----	----	----
Particulate, PM2.5	----	EC886/VA	2.0	µg/m³		<2.3	<2.3	----	----	----
Particulate, coarse	----	E886/VA	0.050	mg/sample		<0.050	<0.050	----	----	----
Particulate, fine	----	E886/VA	0.050	mg/sample		<0.050	<0.050	----	----	----
Particulate, PM10	----	E886/VA	0.075	mg/sample		<0.075	<0.075	----	----	----
Particulate, PM2.5	----	E886/VA	0.050	mg/sample		<0.050	<0.050	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

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QUALITY CONTROL REPORT

Work Order	: **VA24A0171**	Page	: 1 of 3
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 03-Jan-2024 09:40
PO	: 15180	Date Analysis Commenced	: 05-Jan-2024
C-O-C number	: 17-044	Issue Date	: 09-Jan-2024 10:12
Sampler	: ---- ----		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 2		
No. of samples analysed	: 2		

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This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives

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Kaitlyn Gardner	Account Manager Assistant	Vancouver Administration, Burnaby, British Columbia
Kate Dimitrova	Supervisor - Inorganic	Vancouver Inorganics, Burnaby, British Columbia

General Comments

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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: **Air**

					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*
Particulates (QC Lot: 1297027)											
VA24A0171-001	Partisol1	Particulate, coarse	----	E886	0.050	mg/sample	<0.050	<0.050	0	Diff <2x LOR	----
		Particulate, fine	----	E886	0.050	mg/sample	<0.050	<0.050	0	Diff <2x LOR	----
		Particulate, PM10	----	E886	0.075	mg/sample	<0.075	<0.075	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: **Air**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Particulates (QCLot: 1297027)						
Particulate, coarse	----	E886	0.05	mg/sample	<0.050	----
Particulate, fine	----	E886	0.05	mg/sample	<0.050	----
Particulate, PM10	----	E886	0.075	mg/sample	<0.075	----

ALS Canada Ltd.

right solutions.
right partner.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA24A0171**	Page	: 1 of 5
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: ----	Date Samples Received	: 03-Jan-2024 09:40
PO	: 15180	Issue Date	: 09-Jan-2024 10:12
C-O-C number	: 17-044		
Sampler	: ----		
Site	: ----		
Quote number	: VA22-BWGL100-001 - Partisol Filters		
No. of samples received	: 2		
No. of samples analysed	: 2		

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 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: **Air**

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*
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Cassette Partisol1	EF005	26-Dec-2023	----	----	----		05-Jan-2024	----	10 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Cassette Partisol1	EF005	20-Dec-2023	----	----	----		05-Jan-2024	----	16 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Cassette Partisol1	E886	26-Dec-2023	----	----	----		08-Jan-2024	----	14 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Cassette Partisol1	E886	20-Dec-2023	----	----	----		08-Jan-2024	----	20 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: **Air**

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)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1297027	1	2	50.0	5.0	✓
Method Blanks (MB)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1297027	1	2	50.0	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
Particulates Dichotomous by Gravimetry (mg/sample)	E886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Particulates Dichotomous by Gravimetry (ug/m3)	EC886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Air Sampling Volume for Particulate (Dichotomous)	EF005 ALS Environmental - Vancouver	Air	Field measurements supplied by client	Field measurement of sampling volume provided by client and recorded on ALS report may affect the validity of results

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com — Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 044

Page 1 of 1

Report To	Contact and company name below will appear on the final report	Report Format / Distribution	Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)
Company:	Blackwater Gold Mine	Select Report Format: PDF ☑ EXCEL ☑ EDD (DIGITAL) ☑	Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:	Mark Warbanski	Quality Control (QC) Report with Report YES NO	Priority (Business Days): 4 day [P4-20%] ☐ / 3 day [P3-25%] ☐ / 2 day [P2-50%] ☐
Phone:	778-818-0327	Compare Results to Criteria on Report - provide details below if box checked ☑	Emergency: 1 Business day [E - 100%] ☐ / Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐
	Company address below will appear on the final report	Select Distribution: ☑ EMAIL MAIL FAX	
Street:	101 - 139 1st Street East	Email 1 or Fax: Envirogeneral@artemisgoldinc.com	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
City/Province:	Vanderhoof, BC	Email 2: Ktanaka@Artemisgoldinc.com	For tests that can not be performed according to the service level selected, you will be contacted.
Postal Code:	V0J 3A0	Email 3	
Invoice To	Same as Report To YES ☐ NO ☑	Invoice Distribution	Analysis Request
	Copy of Invoice with Report YES ☐ NO ☑	Select Invoice Distribution: EMAIL ☑ MAIL FAX ☐ ☐	
Company:	Artemis Gold Inc	Email 1 or Fax: Accounts@artemisgoldinc.com	
Contact:	Accounts Payable	Email 2: mwarkbanski@artemisgoldinc.com	

Project Information

ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:		Major/Minor Code:	Routing Code:
PO / AFE:	15180	Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		ALS Contact: Amber Springer	Sampler: BWG

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Filter Numbers	Total Vol. (m3)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10
	Partisol1	77694, 77724	21.6, 2.41	20-Dec-23	24:00:00	AA	2	R	R
	Partisol1	77693, 77728	21.6, 2.41	26-Dec-23	24:00:00	AA	2	R	R

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

SAMPLES ON HOLD

SUSPECTED HAZARD (see Special Instructions)

Environmental Division
Vancouver
Work Order Reference
VA24A0171

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? YES ☐ NO ☐

Are samples for human consumption/ use? YES ☐ NO ☐

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Please upload to EMS, EMS ID E331131
Time = Total Time Sampled
PM2.5 Filter is Listed First in the Pair, PM10 is the Last Filter The first volume is PM2.5, the second is PM10

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☑ Ice Cubes ☐ Custody seal intact Yes ☑ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
			3	3	6

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: J. Roy	Date: 12/20/23	Time: 9:00	Received by:	Date:	Time:	Received by: RK	Date: 01/03/2024	Time: 9:40 am

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.

NOV 2016 FRONT

APPENDIX E 2023 Radiello Lab Certificate of Analysis

CERTIFICATE OF ANALYSIS

Work Order	: **VA23B0348**	Page	: 1 of 2
Client	: **BW Gold Ltd.**	Laboratory	: Vancouver - Environmental
Contact	: Kelsey Tanaka	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 11-May-2023 10:00
PO	: ----	Date Analysis Commenced	: 31-May-2023
C-O-C number	: 17-009	Issue Date	: 31-May-2023 10:12
Sampler	: BC, SL		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 2		
No. of samples analysed	: 2		

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*
Kaitlyn Gardner	Account Manager Assistant	Internal Subcontracting, Cincinnati, Ohio

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*
µg/sample	micrograms per sample

<: 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: **Air** (Matrix: **Air**)					*Client sample ID*	**Rad1**	**Rad1**	**----**	**----**	**----**
					Client sampling date / time	22-Apr-2023 16:45	06-May-2023 14:30	----	----	----
Analyte	*CAS Number*	*Method/Lab*	*LOR*	*Unit*		**VA23B0348-001**	**VA23B0348-002**	--------	--------	--------
						Result	Result	----	----	----
Inorganics										
Nitrogen dioxide (as NO2)	10102-44-0	Dioxides/1A	1	µg/sample		See Attached	See Attached	----	----	----
Sulfur dioxide (as SO2)	7446-09-5	Dioxides/1A	1	µg/sample		See Attached	See Attached	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23B0348**	Page	: 1 of 2
Client	: BW Gold Ltd.	Laboratory	: Vancouver - Environmental
Contact	: Kelsey Tanaka	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 11-May-2023 10:00
PO	: ----	Date Analysis Commenced	: 31-May-2023
C-O-C number	: 17-009	Issue Date	: 31-May-2023 10:12
Sampler	: BC, SL ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 2		
No. of samples analysed	: 2		

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:

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*
Kaitlyn Gardner	Account Manager Assistant	USA - Cincinnati Internal Subcontracting, Cincinnati, Ohio

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.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23B0348**	Page	: 1 of 4
Client	: **BW Gold Ltd.**	Laboratory	: Vancouver - Environmental
Contact	: Kelsey Tanaka	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 11-May-2023 10:00
PO	: ----	Issue Date	: 31-May-2023 10:12
C-O-C number	: 17-009		
Sampler	: BC, SL		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 2		
No. of samples analysed	: 2		

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 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: **Air**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Inorganics : Dioxides by Radiello in Air										
Original packaging Rad1	Dioxides	06-May-2023	----	----	----		31-May-2023	----	----	
Original packaging Rad1	Dioxides	22-Apr-2023	----	----	----		31-May-2023	----	----	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

- **No Quality Control data available for this section.**

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
Dioxides by Radiello in Air	Dioxides Cincinnati - Environmental - 4388 Glendale-Milford Road Cincinnati Ohio United States 45242	Air	see attached report	see attached report

31-May-2023

Amber Springer
ALS Environmental
8081 Lougheed HWY
Suite 100
Burnaby, BC V5A 1W9

Re: **VA23B0348** Work Order: **23050610**

Dear Amber,

ALS Environmental received 2 samples on 16-May-2023 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 10.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Hannah Ponder

Electronically approved by: Hannah Ponder

Hannah Ponder

Report of Laboratory Analysis

ALS Environmental

Date: 31-May-23

Client: ALS Environmental
Project: VA23B0348
Work Order: **23050610**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
23050610-01	VA23B0348-001	Air		4/22/2023 19:45	5/16/2023 09:30	☐
23050610-02	VA23B0348-002	Air		5/6/2023 17:30	5/16/2023 09:30	☐

Client: ALS Environmental
Project: VA23B0348
Work Order: 23050610

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

Compound identification is based upon retention time matching only. Any compound with a similar retention time will interfere.

Samples were prepared and analyzed by the analytical method and the laboratory's applicable standard operating procedure listed below:
- IH-001- "Determination of Analytes Using NIOSH and OSHA Methods Using Gas Chromatography."
- IH-002- "Determination of Suspended Particulates in the Atmosphere Using Various Media"
- IH-003- "Determination of Suspended Particulates Not Otherwise Regulated (Total and Respirable)."
- IH-004- "Determination of Analytes by NIOSH and OSHA Methods Using Liquid Chromatography."
- IH-005- "Benzene-Soluble Fraction and Total Particulate (Asphalt Fume)."
- IH-006- "Methods IO-3.1 and IO-3.4 Modified for Metals Preparation and Analysis for Suspended Particulates."
- IH-007- "Colorimetric Determination of Hydrogen Sulfide in Air."
- IH-196- "Carbon Black by OSHA 196."
- IH-6009- "Determination of Mercury in Industrial Hygiene Samples by Manual Cold Vapor Atomic Absorption Spectroscopy."
- ENV-6010B- "Determination of Trace Metals in Solution by Inductively Coupled Plasma-Atomic Emission Spectroscopy by EPA Method 6010B Non-VAP."
- IH-7300 modified- "Elements by ICP."

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

All sampling information was provided by the client.

ALS Environmental

Date: *31-May-23*

Client: ALS Environmental
Project: VA23B0348
Sample ID: VA23B0348-001
Collection Date: 4/22/2023 07:45 PM

Work Order: 23050610
Lab ID: 23050610-01
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIOXIDES BY RADIELLO			**IC**	Prep: IC 5/24/23 13:20		Analyst: **JAP**
Nitrogen Dioxide	**1.2**		**1.0**	**µg/sample**	1	5/25/2023 06:36 PM
Sulfur Dioxide	ND		1.0	µg/sample	1	5/25/2023 06:36 PM

Note:

ALS Environmental

Date: *31-May-23*

Client: ALS Environmental
Project: VA23B0348
Sample ID: VA23B0348-002
Collection Date: 5/6/2023 05:30 PM

Work Order: 23050610
Lab ID: 23050610-02
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIOXIDES BY RADIELLO			**IC**	Prep: IC 5/24/23 13:20		Analyst: **JAP**
Nitrogen Dioxide	**2.4**		**1.0**	**µg/sample**	1	5/25/2023 06:42 PM
Sulfur Dioxide	ND		1.0	µg/sample	1	5/25/2023 06:42 PM

Note:

ALS Environmental

Date: 31-May-23

Client: ALS Environmental

QC BATCH REPORT

Work Order: 23050610

Project: VA23B0348

Batch ID: **91364** Instrument ID **IC2** Method: **IC**

MBLK Sample ID: **MBLK-91364-91364** Units: **µg/sample** Analysis Date: **5/25/2023 06:11 PM**

Client ID: Run ID: **IC2_230525C** SeqNo: **3056920** Prep Date: **5/24/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	ND	1.0								
Sulfur Dioxide	ND	1.0								

LCS Sample ID: **LCS-91364-91364** Units: **µg/sample** Analysis Date: **5/25/2023 06:17 PM**

Client ID: Run ID: **IC2_230525C** SeqNo: **3056921** Prep Date: **5/24/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.386	1.0	5	0	108	79-130	0			
Sulfur Dioxide	5.716	1.0	5	0	114	68.6-146	0			

LCSD Sample ID: **LCSD-91364-91364** Units: **µg/sample** Analysis Date: **5/25/2023 06:23 PM**

Client ID: Run ID: **IC2_230525C** SeqNo: **3056922** Prep Date: **5/24/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.356	1.0	5	0	107	79-130	5.386	0.553	20	
Sulfur Dioxide	5.755	1.0	5	0	115	68.6-146	5.716	0.665	20	

The following samples were analyzed in this batch: 23050610-01A 23050610-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 31-May-23

Client: ALS Environmental
Project: VA23B0348
WorkOrder: **23050610**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **ALS-VANCOUVER** Date/Time Received: **16-May-23 09:30**

Work Order: **23050610** Received by: **AB1**

Checklist completed by Alec Bolender (eSignature) 16-May-23 (Date) Reviewed by: Hannah Ponder (eSignature) 16-May-23 (Date)

Matrices: air

Carrier name: DHL

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☐	No ☑	
Temperature(s)/Thermometer(s):	ambient		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Chain of Custody

Vancouver - Environmental
8081 Lougheed Highway
Burnaby BC Canada V5A 1W9

23050610

114095

Destination Lab:	**USA - Cincinnati**
Address:	4388 Glendale-Milford Road Cincinnati OH United States 45242
Client:	BW Gold Ltd.
Work Order Number:	**VA23B0348**
Original Receipt Date/Time	Instructions Received
11/05/2023 13:00	

Relinquished By	
Date/Time	
Received By	
Date/Time	5-16-23 ~~0910~~ 930 AB
Receipt Temp	

Return as Indicated: Results: alsev.datasublet@alsglobal.com Invoice: alsev.datasublet@alsglobal.com Electronic Data: alsev.datasublet@alsglobal.com

Attention: Amber Springer

	ALS Sample ID	Client ID	Matrix	Container Type	Test Codes	Method Description	Due Date	Sampling Date and Time	Remarks
1	VA23B0348-001	Rad1	Air	Original packaging	Dioxides	Dioxides by Radiello in Air	01-06-2023	22/04/2023 19:45	
2	VA23B0348-002	Rad1	Air	Original packaging	Dioxides	Dioxides by Radiello in Air	01-06-2023	06/05/2023 17:30	

DHC

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

23050610
Affix ALS barcode label here
(lab use only)

COC Number: 17 - 009

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Jack or Sarah
Phone:	778-210-0261 or 250-818-3785
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☐ YES ☐ NO
☑ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	Envirogeneral@artemisgoldinc.com
Email 2	ktanaka@artemisgoldinc.com
Email 3	

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	Invoices@artemisgoldinc.com
Email 2	Jlove@artemisgoldinc.com

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:		Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		ALS Contact: Amber Springer	Sampler: SL, BC

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Radiello NO2 and SO2	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	Rad1	22-Apr-23	16:45	Radiello	1	R		
	Rad1	6-May-23	14:30	Radiello	1	R		

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	RAD1 Start April 22, 23 at 14:04, finished Apr 22, 23 at 16:45 RAD1
Are samples for human consumption/ use? ☐ YES ☑ NO	Start April 22, 2023 at 16:45, Finished May 6, 23 at 14:30

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	☐	SIF Observations	Yes ☐	No	☐
Ice Packs	☐	Ice Cubes ☐	Custody seal intact	Yes ☐	No ☐
Cooling Initiated	☐				

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
							8

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)			
Released by:	Date: MAY 10-23	Time:	Received by:	Date:	Time:	Received by: CP	Date: 11/5/23	Time: 10am	

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2018 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 009

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Jack or Sarah
Phone:	778-210-0261 or 250-818-3785
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report ☐ YES ☐ NO
☑ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: Envirogeneral@artemisgoldinc.com
Email 2: ktanaka@artemisgoldinc.com
Email 3:

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: Invoices@artemisgoldinc.com
Email 2: Jlove@artemisgoldinc.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information

ALS Account # / Quote #:	
Job #:	
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#:
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer | Sampler: SL, BC

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Radiello NO2 and SO2	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	Rad1	22-Apr-23	16:45	Radiello	1	R		
	Rad1	6-May-23	14:30	Radiello	1	R		

Environmental Division
Vancouver
Work Order Reference
VA23B0348

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

RAD1 Start April 8, 23 at 14:04, finished Apr 22, 23 at 16:45 RAD1
Start April 22, 2023 at 16:45, Finished May 6, 23 at 14:30

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	☐	SIF Observations	Yes ☐	No	☐
Ice Packs	☐ Ice Cubes ☐	Custody seal intact	Yes ☐	No	☐
Cooling Initiated	☐				

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
					8

SHIPMENT RELEASE (client use)

Released by: Date: MAY 10-23 Time:

INITIAL SHIPMENT RECEPTION (lab use only)

Received by: Date: Time:

FINAL SHIPMENT RECEPTION (lab use only)

Received by: CP Date: 11/5/23 Time: 10AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2018 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a *Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.*

ALS Canada Ltd.

right solutions.
right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **VA23B2852**	Page	: 1 of 2
Client	: **BW Gold Ltd.**	Laboratory	: Vancouver - Environmental
Contact	: Kelsey Tanaka	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 08-Jun-2023 08:40
PO	: ----	Date Analysis Commenced	: 26-Jun-2023
C-O-C number	: 17-010	Issue Date	: 26-Jun-2023 12:34
Sampler	: SL BC		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 2		
No. of samples analysed	: 2		

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*
Kaitlyn Gardner	Account Manager Assistant	Internal Subcontracting, Cincinnati, Ohio

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*
µg/sample	micrograms per sample

<: 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: **Filter Cassette** (Matrix: **Air**)					*Client sample ID*	**Rad1**	**Rad1**	**----**	**----**	**----**
					Client sampling date / time	06-May-2023 14:30	21-May-2023 14:00	----	----	----
Analyte	*CAS Number*	*Method/Lab*	*LOR*	*Unit*		**VA23B2852-001**	**VA23B2852-002**	--------	--------	--------
						Result	Result	----	----	----
Inorganics										
Nitrogen dioxide (as NO2)	10102-44-0	Dioxides/1A	1	µg/sample		See Attached	See Attached	----	----	----
Sulfur dioxide (as SO2)	7446-09-5	Dioxides/1A	1	µg/sample		See Attached	See Attached	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23B2852**	Page	: 1 of 2
Client	: BW Gold Ltd.	Laboratory	: Vancouver - Environmental
Contact	: Kelsey Tanaka	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 08-Jun-2023 08:40
PO	: ----	Date Analysis Commenced	: 26-Jun-2023
C-O-C number	: 17-010	Issue Date	: 26-Jun-2023 12:36
Sampler	: SL BC ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 2		
No. of samples analysed	: 2		

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:

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*
Kaitlyn Gardner	Account Manager Assistant	USA - Cincinnati Internal Subcontracting, Cincinnati, Ohio

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.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23B2852**	Page	: 1 of 4
Client	: **BW Gold Ltd.**	Laboratory	: Vancouver - Environmental
Contact	: Kelsey Tanaka	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 08-Jun-2023 08:40
PO	: ----	Issue Date	: 26-Jun-2023 12:34
C-O-C number	: 17-010		
Sampler	: SL BC		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 2		
No. of samples analysed	: 2		

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 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: **Air**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Inorganics : Dioxides by Radiello in Air										
M29 : Quartz Filter Rad1	Dioxides	06-May-2023	----	----	----		26-Jun-2023	----	----	
M29 : Quartz Filter Rad1	Dioxides	21-May-2023	----	----	----		26-Jun-2023	----	----	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

- **No Quality Control data available for this section.**

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
Dioxides by Radiello in Air	Dioxides Cincinnati - Environmental - 4388 Glendale-Milford Road Cincinnati Ohio United States 45242	Air	see attached report	see attached report

26-Jun-2023

Amber Springer
ALS Environmental
8081 Lougheed HWY
Suite 100
Burnaby, BC V5A 1W9

Re: **VA23B2852** Work Order: **23060531**

Dear Amber,

ALS Environmental received 2 samples on 12-Jun-2023 12:00 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 9.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Hannah Ponder

Electronically approved by: Hannah Ponder

Hannah Ponder

Report of Laboratory Analysis

ALS Environmental

Date: 26-Jun-23

Client: ALS Environmental
Project: VA23B2852
Work Order: **23060531**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
23060531-01	VA23B2852-001	Air		5/6/2023 17:30	6/12/2023 12:00	☐
23060531-02	VA23B2852-002	Air		5/21/2023 17:00	6/12/2023 12:00	☐

Client: ALS Environmental
Project: VA23B2852
Work Order: 23060531

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

Compound identification is based upon retention time matching only. Any compound with a similar retention time will interfere.

Samples were prepared and analyzed by the analytical method and the laboratory's applicable standard operating procedure listed below:
- IH-001- "Determination of Analytes Using NIOSH and OSHA Methods Using Gas Chromatography."
- IH-002- "Determination of Suspended Particulates in the Atmosphere Using Various Media"
- IH-003- "Determination of Suspended Particulates Not Otherwise Regulated (Total and Respirable)."
- IH-004- "Determination of Analytes by NIOSH and OSHA Methods Using Liquid Chromatography."
- IH-005- "Benzene-Soluble Fraction and Total Particulate (Asphalt Fume)."
- IH-006- "Methods IO-3.1 and IO-3.4 Modified for Metals Preparation and Analysis for Suspended Particulates."
- IH-007- "Colorimetric Determination of Hydrogen Sulfide in Air."
- IH-196- "Carbon Black by OSHA 196."
- IH-6009- "Determination of Mercury in Industrial Hygiene Samples by Manual Cold Vapor Atomic Absorption Spectroscopy."
- ENV-6010B- "Determination of Trace Metals in Solution by Inductively Coupled Plasma-Atomic Emission Spectroscopy by EPA Method 6010B Non-VAP."
- IH-7300 modified- "Elements by ICP."

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

All sampling information was provided by the client.

ALS Environmental

Date: *26-Jun-23*

Client: ALS Environmental
Project: VA23B2852
Sample ID: VA23B2852-001
Collection Date: 5/6/2023 05:30 PM

Work Order: 23060531
Lab ID: 23060531-01
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIOXIDES BY RADIELLO			**IC**	Prep: IC 6/15/23 10:11		Analyst: **JAP**
Nitrogen Dioxide	**3.4**		**1.0**	**µg/sample**	1	6/15/2023 03:32 PM
Sulfur Dioxide	ND		1.0	µg/sample	1	6/15/2023 03:32 PM

Note:

ALS Environmental

Date: *26-Jun-23*

Client: ALS Environmental
Project: VA23B2852 **Work Order:** 23060531
Sample ID: VA23B2852-002 **Lab ID:** 23060531-02
Collection Date: 5/21/2023 05:00 PM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIOXIDES BY RADIELLO			**IC**	Prep: IC 6/15/23 10:11		Analyst: **JAP**
Nitrogen Dioxide	**2.0**		**1.0**	**µg/sample**	1	6/15/2023 03:38 PM
Sulfur Dioxide	ND		1.0	µg/sample	1	6/15/2023 03:38 PM

Note:

ALS Environmental

Date: 26-Jun-23

Client: ALS Environmental

Work Order: 23060531

Project: VA23B2852

QC BATCH REPORT

Batch ID: **91843** Instrument ID **IC2** Method: **IC**

MBLK Sample ID: **MBLK-91843-91843** Units: **µg/sample** Analysis Date: **6/15/2023 03:07 PM**

Client ID: Run ID: **IC2_230615A** SeqNo: **3077085** Prep Date: **6/15/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	0.4356	1.0								J
Sulfur Dioxide	ND	1.0								

LCS Sample ID: **LCS-91843-91843** Units: **µg/sample** Analysis Date: **6/15/2023 03:13 PM**

Client ID: Run ID: **IC2_230615A** SeqNo: **3077086** Prep Date: **6/15/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	4.406	1.0	5	0	88.1	79-130	0			
Sulfur Dioxide	5.515	1.0	5	0	110	68.6-146	0			

LCSD Sample ID: **LCSD-91843-91843** Units: **µg/sample** Analysis Date: **6/15/2023 03:19 PM**

Client ID: Run ID: **IC2_230615A** SeqNo: **3077087** Prep Date: **6/15/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	4.95	1.0	5	0	99	79-130	4.406	11.6	20	
Sulfur Dioxide	5.841	1.0	5	0	117	68.6-146	5.515	5.75	20	

The following samples were analyzed in this batch: 23060531-01A 23060531-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 26-Jun-23

Client: ALS Environmental
Project: VA23B2852
WorkOrder: **23060531**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **ALS-VANCOUVER** Date/Time Received: **12-Jun-23 12:00**

Work Order: **23060531** Received by: **MB**

Checklist completed by Madison Bufler (eSignature) 12-Jun-23 (Date) Reviewed by: Hannah Ponder (eSignature) 13-Jun-23 (Date)

Matrices: Air

Carrier name: DHL

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☐	No ☑	
Sample(s) received on ice?	Yes ☐	No ☑	
Temperature(s)/Thermometer(s):	20.7	120258	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	6/12/2023 17:23		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Chain of Custody

Vancouver - Environmental
8081 Lougheed Highway
Burnaby BC Canada V5A 1W9

2300531

120280

Destination Lab:	**USA - Cincinnati**
Address:	4388 Glendale-Milford Road Cincinnati OH United States 45242
Client:	BW Gold Ltd.
Work Order Number:	**VA23B2852**
Original Receipt Date/Time	Instructions Received
08/06/2023 11:40	

Relinquished By

Date/Time

Received By

Date/Time 6-12-23 12100

Receipt Temp

Return as Indicated: Results: alsev.datasublet@alsglobal.com Invoice: alsev.datasublet@alsglobal.com Electronic Data: alsev.datasublet@alsglobal.com

Attention: Amber Springer

	ALS Sample ID	Client ID	Matrix	Container Type	Test Codes	Method Description	Due Date	Sampling Date and Time	Remarks
1	VA23B2852-001	Rad1	Air	Filter	Dioxides	Dioxides by Radiello in Air	29-06-2023	06/05/2023 17:30	
2	VA23B2852-002	Rad1	Air	Filter	Dioxides	Dioxides by Radiello in Air	29-06-2023	21/05/2023 17:00	

DHL

20.7 120256

melted ice packs

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 010

Page 1 of

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Sarah
Phone:	778-210-0261 or 250-818-3785
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report ☐ YES ☐ NO
☑ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: Envirogeneral@artemisgoldinc.com
Email 2: ktanaka@artemisgoldinc.com
Email 3:

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: Invoices@artemisgoldinc.com
Email 2: Sharrison@artemisgoldinc.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information	
ALS Account # / Quote #:	
Job #:	
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)	
AFE/Cost Center:	PO#:
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer | Sampler: SL, BC

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Radiello NO2 and SO2	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	Rad1	6-May-23	14:30	Radiello	1	R		
	Rad1	21-May-23	14:00	Radiello	1	R		

Environmental Division Vancouver
Work Order Reference
VA23B2852

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

RAD1 Start May 6 at 14:30, finish May 21 @14:00
May 21 @14:00, finish Jun 3 @ 14:15

RAD1 Start

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | SIF Observations Yes ☐ No ☐
Ice Packs ☑ Ice Cubes ☐ | Custody seal intact Yes ☐ No ☐
Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
			2	2	4

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date: 06/07/2023	Time: 10am	Received by:	Date:	Time:	Received by: JC	Date: 8 JUN 23	Time: 840am

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2018 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

CERTIFICATE OF ANALYSIS

Work Order	: **VA23B4828**	Page	: 1 of 2
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Accounts Payable	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: 778-375-3130	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 28-Jun-2023 10:30
PO	: 12970	Date Analysis Commenced	: 19-Jul-2023
C-O-C number	: 17-013	Issue Date	: 19-Jul-2023 12:15
Sampler	: BC		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Kaitlyn Gardner	Account Manager Assistant	Internal Subcontracting, Cincinnati, Ohio

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*
µg/sample	micrograms per sample

<: 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: **Air** (Matrix: **Air**)					*Client sample ID*	**Rad1**	----	----	----	----
					Client sampling date / time	18-Jun-2023 12:40	----	----	----	----
Analyte	*CAS Number*	*Method/Lab*	*LOR*	*Unit*		**VA23B4828-001**	---------	---------	---------	---------
						Result	----	----	----	----
Inorganics										
Nitrogen dioxide (as NO2)	10102-44-0	Dioxides/1A	1	µg/sample		See Attached	----	----	----	----
Sulfur dioxide (as SO2)	7446-09-5	Dioxides/1A	1	µg/sample		See Attached	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23B4828**	Page	: 1 of 2
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Accounts Payable	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 28-Jun-2023 10:30
PO	: 12970	Date Analysis Commenced	: 19-Jul-2023
C-O-C number	: 17-013	Issue Date	: 19-Jul-2023 12:15
Sampler	: BC 778-375-3130		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

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*
Kaitlyn Gardner	Account Manager Assistant	USA - Cincinnati Internal Subcontracting, Cincinnati, Ohio

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.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23B4828**	Page	: 1 of 4
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Accounts Payable	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: 778-375-3130	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 28-Jun-2023 10:30
PO	: 12970	Issue Date	: 19-Jul-2023 12:15
C-O-C number	: 17-013		
Sampler	: BC		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

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 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: **Air**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Inorganics : Dioxides by Radiello in Air										
Original packaging										
Rad1	Dioxides	18-Jun-2023	----	----	----		19-Jul-2023	----	----	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

- **No Quality Control data available for this section.**

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
Dioxides by Radiello in Air	Dioxides Cincinnati - Environmental - 4388 Glendale-Milford Road Cincinnati Ohio United States 45242	Air	see attached report	see attached report

19-Jul-2023

Amber Springer
ALS Environmental
8081 Lougheed HWY
Suite 100
Burnaby, BC V5A 1W9

Re: **VA23B4828** Work Order: **23070022**

Dear Amber,

ALS Environmental received 1 sample on 05-Jul-2023 09:04 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 8.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Hannah Ponder

Electronically approved by: Hannah Ponder

Hannah Ponder

Report of Laboratory Analysis

ALS Environmental

Date: 19-Jul-23

Client: ALS Environmental
Project: VA23B4828
Work Order: **23070022**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
23070022-01	VA23B4828-001	Air		6/18/2023 15:40	7/5/2023 09:04	☐

Client: ALS Environmental
Project: VA23B4828
Work Order: 23070022

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

Compound identification is based upon retention time matching only. Any compound with a similar retention time will interfere.

Samples were prepared and analyzed by the analytical method and the laboratory's applicable standard operating procedure listed below:
- IH-001- "Determination of Analytes Using NIOSH and OSHA Methods Using Gas Chromatography."
- IH-002- "Determination of Suspended Particulates in the Atmosphere Using Various Media"
- IH-003- "Determination of Suspended Particulates Not Otherwise Regulated (Total and Respirable)."
- IH-004- "Determination of Analytes by NIOSH and OSHA Methods Using Liquid Chromatography."
- IH-005- "Benzene-Soluble Fraction and Total Particulate (Asphalt Fume)."
- IH-006- "Methods IO-3.1 and IO-3.4 Modified for Metals Preparation and Analysis for Suspended Particulates."
- IH-007- "Colorimetric Determination of Hydrogen Sulfide in Air."
- IH-196- "Carbon Black by OSHA 196."
- IH-6009- "Determination of Mercury in Industrial Hygiene Samples by Manual Cold Vapor Atomic Absorption Spectroscopy."
- ENV-6010B- "Determination of Trace Metals in Solution by Inductively Coupled Plasma-Atomic Emission Spectroscopy by EPA Method 6010B Non-VAP."
- IH-7300 modified- "Elements by ICP."

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

All sampling information was provided by the client.

ALS Environmental

Date: *19-Jul-23*

Client: ALS Environmental
Project: VA23B4828
Sample ID: VA23B4828-001
Collection Date: 6/18/2023 03:40 PM

Work Order: 23070022
Lab ID: 23070022-01
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIOXIDES BY RADIELLO			**IC**	Prep: IC 7/10/23 08:41		Analyst: **JAP**
Nitrogen Dioxide	**5.5**		**1.0**	**µg/sample**	1	7/11/2023 09:58 AM
Sulfur Dioxide	**2.3**		**1.0**	**µg/sample**	1	7/11/2023 09:58 AM

Note:

ALS Environmental

Date: 19-Jul-23

Client: ALS Environmental

Work Order: 23070022

Project: VA23B4828

QC BATCH REPORT

Batch ID: **92348** Instrument ID **IC2** Method: **IC**

MBLK Sample ID: **MBLK-92348-92348** Units: **µg/sample** Analysis Date: **7/11/2023 09:33 AM**

Client ID: Run ID: **IC2_230711A** SeqNo: **3100188** Prep Date: **7/10/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	0.26	1.0								J
Sulfur Dioxide	ND	1.0								

LCS Sample ID: **LCS-92348-92348** Units: **µg/sample** Analysis Date: **7/11/2023 09:39 AM**

Client ID: Run ID: **IC2_230711A** SeqNo: **3100189** Prep Date: **7/10/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	6.203	1.0	5	0	124	79-130	0			
Sulfur Dioxide	5.873	1.0	5	0	117	68.6-146	0			

LCSD Sample ID: **LCSD-92348-92348** Units: **µg/sample** Analysis Date: **7/11/2023 09:46 AM**

Client ID: Run ID: **IC2_230711A** SeqNo: **3100190** Prep Date: **7/10/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.481	1.0	5	0	110	79-130	6.203	12.3	20	
Sulfur Dioxide	5.087	1.0	5	0	102	68.6-146	5.873	14.3	20	

The following samples were analyzed in this batch: 23070022-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 19-Jul-23

Client: ALS Environmental
Project: VA23B4828
WorkOrder: **23070022**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **ALS-VANCOUVER** Date/Time Received: **05-Jul-23 09:04**

Work Order: **23070022** Received by: **MB**

Checklist completed by Madison Bufler (eSignature) 05-Jul-23 (Date) Reviewed by: Hannah Ponder (eSignature) 06-Jul-23 (Date)

Matrices: Air
Carrier name: DHL

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☐	No ☑	
Sample(s) received on ice?	Yes ☐	No ☑	
Temperature(s)/Thermometer(s):			
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	7/5/2023 13:19		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Chain of Custody

Vancouver - Environmental
8081 Lougheed Highway
Burnaby BC Canada V5A 1W9

125032

Destination Lab:	**USA - Cincinnati**
Address:	4388 Glendale-Milford Road Cincinnati OH United States 45242
Client:	BW Gold Ltd.
Work Order Number:	**VA23B4828**
Original Receipt Date/Time	Instructions Received
28/06/2023 13:30	

2307cc22

Reg TAT

Relinquished By

Date/Time

Received By

Date/Time 7-5-23 9:04

Receipt Temp 21.9

Mel Ice pac

12025

Return as Indicated: Results: alsev.datasublet@alsglobal.com Invoice: alsev.datasublet@alsglobal.com Electronic Data: alsev.datasublet@alsglobal.com

Attention: Amber Springer

ALS Sample ID	Client ID	Matrix	Container Type	Test Codes	Method Description	Due Date	Sampling Date and Time	Remarks
VA23B4828-001	Rad1	Air	Original packaging	Dioxides	Dioxides by Radiello in Air	20-07-2023	18/06/2023 15:40	

1

DHL

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 013

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Sarah
Phone:	778-210-0261 or 250-818-3785
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report ☐ YES ☐ NO
☑ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: Envirogeneral@artemisgoldinc.com
Email 2: ktanaka@artemisgoldinc.com
Email 3:

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: Invoices@artemisgoldinc.com
Email 2: Sharrison@artemisgoldinc.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information

ALS Account # / Quote #:	
Job #:	
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only): 4828

ALS Contact: Amber Springer | Sampler: BC

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Radello NO2 and SO2	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	Rad1	18-Jun-23	12:40	Radiello	1	R		

Environmental Division Vancouver
Work Order Reference
VA23B4828

Telephone: +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

RAD1 Start June 03, 2023 at 14:15, finished June 18, 2023 at 12:40

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | SIF Observations Yes ☐ No ☐
Ice Packs ☑ Ice Cubes ☐ | Custody seal intact Yes ☐ No ☐
Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
	18

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date: June 26 2023	Time:	Received by:	Date:	Time:	Received by: JC	Date: JUN 28 2023	Time: 1030am

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2018 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

CERTIFICATE OF ANALYSIS

Work Order	: **VA23B9414**	Page	: 1 of 6
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 17-Aug-2023 10:25
PO	: 12970	Date Analysis Commenced	: 24-Aug-2023
C-O-C number	: 17-014	Issue Date	: 08-Sep-2023 16:10
Sampler	: ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 16		
No. of samples analysed	: 15		

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*
Kaitlyn Gardner	Account Manager Assistant	Administration, Burnaby, British Columbia
Paolo Obillo	Account Manager Assistant	Internal Subcontracting, Cincinnati, Ohio
Tracy Harley	Supervisor - Water Quality Instrumentation	Inorganics, Burnaby, British Columbia

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
µg/m³	micrograms per cubic metre
L	litres
mg/sample	milligrams per sample
ppbv	parts per billion (volume/volume)

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Workorder Comments

Note for RAD1: This radiello sampling tube was in place for 45 days during a wildfire and could not be removed at the standard interval due to evacuation order. Results should be interpreted with caution.

Analytical Results

Sub-Matrix: **Filter**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	77683 / 78155	77684 / 77188	77685 / 77717	77686 / 77703	77687 / 21530
					Client sampling date / time	10-Aug-2023 00:00	07-Aug-2023 00:00	04-Aug-2023 00:00	01-Aug-2023 00:00	29-Jul-2023 00:00
						VA23B9414-003	VA23B9414-004	VA23B9414-005	VA23B9414-006	VA23B9414-007
						Result	Result	Result	Result	Result
Field Tests										
Air volume, field, coarse particulate	----	EF005/VA	0.010	L		2410	2330	2410	2410	2410
Air volume, field, fine particulate	----	EF005/VA	0.010	L		20900	21600	21600	21600	21600
Particulates										
Particulate, coarse	----	EC886/VA	2.0	µg/m³		16.8	25.3	16.8	2.1	4.4
Particulate, fine	----	EC886/VA	2.0	µg/m³		7.3	7.5	5.4	5.4	5.0
Particulate, PM10	----	EC886/VA	3.0	µg/m³		24.1	32.8	22.2	7.5	9.4
Particulate, PM2.5	----	EC886/VA	2.0	µg/m³		7.3	7.5	5.4	5.4	5.0
Particulate, coarse	----	E886/VA	0.050	mg/sample		0.410	0.623	0.417	0.063	0.117
Particulate, fine	----	E886/VA	0.050	mg/sample		0.153	0.163	0.117	0.117	0.107
Particulate, PM10	----	E886/VA	0.075	mg/sample		0.563	0.786	0.534	0.180	0.224
Particulate, PM2.5	----	E886/VA	0.050	mg/sample		0.153	0.163	0.117	0.117	0.107

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: **Filter**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	77688 / 77720	77689 / 77726	77690 / 77704	77692 / 77724	77693 / 77728
					Client sampling date / time	26-Jul-2023 00:00	23-Jul-2023 00:00	20-Jul-2023 00:00	14-Jul-2023 00:00	11-Jul-2023 00:00
						VA23B9414-008	VA23B9414-009	VA23B9414-010	VA23B9414-011	VA23B9414-012
						Result	Result	Result	Result	Result
Field Tests										
Air volume, field, coarse particulate	----	EF005/VA	0.010	L		2400	2410	2410	2410	2410
Air volume, field, fine particulate	----	EF005/VA	0.010	L		21600	21600	21600	21600	21600
Particulates										
Particulate, coarse	----	EC886/VA	2.0	µg/m³		2.3	6.6	<2.0	15.1	6.2
Particulate, fine	----	EC886/VA	2.0	µg/m³		10.5	40.6	7.7	33.5	8.0
Particulate, PM10	----	EC886/VA	3.0	µg/m³		12.8	47.2	7.7	48.6	14.2
Particulate, PM2.5	----	EC886/VA	2.0	µg/m³		10.5	40.6	7.7	33.5	8.0
Particulate, coarse	----	E886/VA	0.050	mg/sample		0.080	0.257	0.063	0.443	0.167
Particulate, fine	----	E886/VA	0.050	mg/sample		0.227	0.877	0.167	0.723	0.173
Particulate, PM10	----	E886/VA	0.075	mg/sample		0.307	1.13	0.230	1.17	0.340
Particulate, PM2.5	----	E886/VA	0.050	mg/sample		0.227	0.877	0.167	0.723	0.173

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: **Filter**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	77694 / RP68929	77695 / RP76461	77696 / 77723	77699 / 77725	----
					Client sampling date / time	08-Jul-2023 00:00	05-Jul-2023 00:00	02-Jul-2023 00:00	14-Jun-2023 00:00	----
						VA23B9414-013	VA23B9414-014	VA23B9414-015	VA23B9414-016	--------
						Result	Result	Result	Result	----
Field Tests										
Air volume, field, coarse particulate	----	EF005/VA	0.010	L		1430	2400	2400	2410	----
Air volume, field, fine particulate	----	EF005/VA	0.010	L		12800	21600	21600	21600	----
Particulates										
Particulate, coarse	----	EC886/VA	2.0	µg/m³		124	<2.0	14.9	6.4	----
Particulate, fine	----	EC886/VA	2.0	µg/m³		28.4	<2.3	4.3	2.8	----
Particulate, PM10	----	EC886/VA	3.0	µg/m³		152	<3.0	19.2	9.2	----
Particulate, PM2.5	----	EC886/VA	2.0	µg/m³		28.4	<2.3	4.3	2.8	----
Particulate, coarse	----	E886/VA	0.050	mg/sample		1.80	<0.050	0.367	0.160	----
Particulate, fine	----	E886/VA	0.050	mg/sample		0.363	<0.050	0.093	0.060	----
Particulate, PM10	----	E886/VA	0.075	mg/sample		2.16	<0.075	0.460	0.220	----
Particulate, PM2.5	----	E886/VA	0.050	mg/sample		0.363	<0.050	0.093	0.060	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: **Sorbent Tube**
(Matrix: **Air**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	RAD1	----	----	----	----
					Client sampling date / time	15-Aug-2023 16:30	----	----	----	----
						VA23B9414-002	--------	--------	--------	--------
						Result	----	----	----	----
Inorganics										
Sulfur dioxide (as SO2)	7446-09-5	Dioxides m/v/1A	1	ppbv		<0.033	----	----	----	----
Nitrogen dioxide (as NO2)	10102-44-0	Dioxides m/v/1A	1	ppbv		0.84	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23B9414**	Page	: 1 of 3
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 17-Aug-2023 10:25
PO	: 12970	Date Analysis Commenced	: 24-Aug-2023
C-O-C number	: 17-014	Issue Date	: 08-Sep-2023 16:10
Sampler	: ---- ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 16		
No. of samples analysed	: 15		

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
- Method Blank (MB) 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*
Kaitlyn Gardner	Account Manager Assistant	Vancouver Administration, Burnaby, British Columbia
Paolo Obillo	Account Manager Assistant	USA - Cincinnati Internal Subcontracting, Cincinnati, Ohio
Tracy Harley	Supervisor - Water Quality Instrumentation	Vancouver Inorganics, Burnaby, British Columbia

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

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: **Air**

					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*
Particulates (QC Lot: 1116632)											
VA23B9414-003	77683 / 78155	Particulate, coarse	----	E886	0.050	mg/sample	0.410	0.403	0.007	Diff <2x LOR	----
		Particulate, fine	----	E886	0.050	mg/sample	0.153	0.160	0.007	Diff <2x LOR	----
		Particulate, PM10	----	E886	0.075	mg/sample	0.563	0.563	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: **Air**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Particulates (QCLot: 1116632)						
Particulate, coarse	----	E886	0.05	mg/sample	<0.050	----
Particulate, fine	----	E886	0.05	mg/sample	<0.050	----
Particulate, PM10	----	E886	0.075	mg/sample	<0.075	----

ALS Canada Ltd.

right solutions.
right partner.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23B9414**	Page	: 1 of 8
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 17-Aug-2023 10:25
PO	: 12970	Issue Date	: 08-Sep-2023 16:11
C-O-C number	: 17-014		
Sampler	: ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 16		
No. of samples analysed	: 15		

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 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: **Air**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77683 / 78155	EF005	10-Aug-2023	----	----	----		06-Sep-2023	----	27 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77684 / 77188	EF005	07-Aug-2023	----	----	----		06-Sep-2023	----	30 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77685 / 77717	EF005	04-Aug-2023	----	----	----		06-Sep-2023	----	33 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77686 / 77703	EF005	01-Aug-2023	----	----	----		06-Sep-2023	----	36 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77687 / 21530	EF005	29-Jul-2023	----	----	----		06-Sep-2023	----	39 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77688 / 77720	EF005	26-Jul-2023	----	----	----		06-Sep-2023	----	42 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77689 / 77726	EF005	23-Jul-2023	----	----	----		06-Sep-2023	----	45 days	

Matrix: **Air**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77690 / 77704	EF005	20-Jul-2023	----	----	----		06-Sep-2023	----	48 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77692 / 77724	EF005	14-Jul-2023	----	----	----		06-Sep-2023	----	54 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77693 / 77728	EF005	11-Jul-2023	----	----	----		06-Sep-2023	----	57 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77694 / RP68929	EF005	08-Jul-2023	----	----	----		06-Sep-2023	----	60 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77695 / RP76461	EF005	05-Jul-2023	----	----	----		06-Sep-2023	----	63 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77696 / 77723	EF005	02-Jul-2023	----	----	----		06-Sep-2023	----	66 days	
Field Tests : Air Sampling Volume for Particulate (Dichotomous)										
Dicot Filter PM10 77699 / 77725	EF005	14-Jun-2023	----	----	----		06-Sep-2023	----	84 days	
Inorganics : Dioxides by Radiello in Air (ppbv)										
Original packaging RAD1	Dioxides m/v	15-Aug-2023	----	----	----		06-Sep-2023	----	22 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10 77683 / 78155	E886	10-Aug-2023	----	----	----		01-Sep-2023	----	23 days	

Matrix: **Air**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10 77684 / 77188	E886	07-Aug-2023	----	----	----		01-Sep-2023	----	26 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10 77685 / 77717	E886	04-Aug-2023	----	----	----		01-Sep-2023	----	29 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10 77686 / 77703	E886	01-Aug-2023	----	----	----		01-Sep-2023	----	32 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10 77687 / 21530	E886	29-Jul-2023	----	----	----		01-Sep-2023	----	35 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10 77688 / 77720	E886	26-Jul-2023	----	----	----		01-Sep-2023	----	38 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10 77689 / 77726	E886	23-Jul-2023	----	----	----		01-Sep-2023	----	41 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10 77690 / 77704	E886	20-Jul-2023	----	----	----		01-Sep-2023	----	44 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10 77692 / 77724	E886	14-Jul-2023	----	----	----		01-Sep-2023	----	50 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10 77693 / 77728	E886	11-Jul-2023	----	----	----		01-Sep-2023	----	53 days	

Matrix: **Air**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10										
77694 / RP68929	E886	08-Jul-2023	----	----	----		01-Sep-2023	----	56 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10										
77695 / RP76461	E886	05-Jul-2023	----	----	----		01-Sep-2023	----	59 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10										
77696 / 77723	E886	02-Jul-2023	----	----	----		01-Sep-2023	----	62 days	
Particulates : Particulates Dichotomous by Gravimetry (mg/sample)										
Dicot Filter PM10										
77699 / 77725	E886	14-Jun-2023	----	----	----		01-Sep-2023	----	80 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: **Air**

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)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1116632	1	14	7.1	5.0	✓
Method Blanks (MB)							
Particulates Dichotomous by Gravimetry (mg/sample)	E886	1116632	1	14	7.1	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
Dioxides by Radiello in Air (ppbv)	Dioxides m/v Cincinnati - Environmental - 4388 Glendale-Milford Road Cincinnati Ohio United States 45242	Air	See attached report.	See attached report
Particulates Dichotomous by Gravimetry (mg/sample)	E886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Particulates Dichotomous by Gravimetry (ug/m3)	EC886 ALS Environmental - Vancouver	Air	BC Lab Manual - Total Particulate	Total Particulate Matter (PM10) Method analysis is carried out in accordance with the BCMOE Lab Manual, Section G Air Constituents - Inorganics, "Total Particulate - PM10/PM02 - 47mm - HiVol" method. ALS provides pre-weighed filters (Pallflex TX40 HI20-WW 47mm) and clients typically sample using a "Dichotomus Partisol sequential Air Sampler" equivalent sample (EQPS-0509-179, EQPS-0509-180, EQPS-0311-198)as per U.S. EPA Reference Method RFPS-0694-098, fitted with a PM10 inlet. The particulate matter is determined gravimetrically. Three formulas are required for the mass concentration(um/M3)computation of fine PM(PM-2.5) Course PM (PM-10 minus PM2.5) and PM-10.
Air Sampling Volume for Particulate (Dichotomous)	EF005 ALS Environmental - Vancouver	Air	Field measurements supplied by client	Field measurement of sampling volume provided by client and recorded on ALS report may affect the validity of results

06-Sep-2023

Amber Springer
ALS Environmental
8081 Lougheed HWY
Suite 100
Burnaby, BC V5A 1W9

Re: **VA23B9414** Work Order: **23081107**

Dear Amber,

ALS Environmental received 1 sample on 23-Aug-2023 10:21 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 8.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Hannah Ponder

Electronically approved by: Hannah Ponder

Hannah Ponder

Report of Laboratory Analysis

ALS Environmental

Date: 06-Sep-23

Client: ALS Environmental
Project: VA23B9414
Work Order: **23081107**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
23081107-01	VA23B9414-002	Air		8/15/2023 19:30	8/23/2023 10:21	☐

Client: ALS Environmental
Project: VA23B9414
Work Order: 23081107

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

Compound identification is based upon retention time matching only. Any compound with a similar retention time will interfere.

Samples were prepared and analyzed by the analytical method and the laboratory's applicable standard operating procedure listed below:
- IH-001- "Determination of Analytes Using NIOSH and OSHA Methods Using Gas Chromatography."
- IH-002- "Determination of Suspended Particulates in the Atmosphere Using Various Media"
- IH-003- "Determination of Suspended Particulates Not Otherwise Regulated (Total and Respirable)."
- IH-004- "Determination of Analytes by NIOSH and OSHA Methods Using Liquid Chromatography."
- IH-005- "Benzene-Soluble Fraction and Total Particulate (Asphalt Fume)."
- IH-006- "Methods IO-3.1 and IO-3.4 Modified for Metals Preparation and Analysis for Suspended Particulates."
- IH-007- "Colorimetric Determination of Hydrogen Sulfide in Air."
- IH-196- "Carbon Black by OSHA 196."
- IH-6009- "Determination of Mercury in Industrial Hygiene Samples by Manual Cold Vapor Atomic Absorption Spectroscopy."
- ENV-6010B- "Determination of Trace Metals in Solution by Inductively Coupled Plasma-Atomic Emission Spectroscopy by EPA Method 6010B Non-VAP."
- IH-7300 modified- "Elements by ICP."

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

All sampling information was provided by the client.

ALS Environmental

Date: *06-Sep-23*

Client: ALS Environmental
Project: VA23B9414

Work Order: 23081107

Analytical Results

Lab ID: 23081107-01A
Client Sample ID: VA23B9414-002

Collection Date: 8/15/2023 7:30:00 PM
Matrix: AIR

Analyses

DIOXIDES BY RADIELLO	Method: **IC**	Time (Min): **64936**	Analyst: **JAP**
Date Analyzed: 8/31/2023 11:20			

	µg/sample	Reporting Limit µg/sample	ppb
Nitrogen Dioxide	**7.7**	**1.0**	**0.84**
Sulfur Dioxide	ND	1.0	<0.033

Note:

ALS Environmental

Date: 06-Sep-23

Client: ALS Environmental

Work Order: 23081107

Project: VA23B9414

QC BATCH REPORT

Batch ID: **93507** Instrument ID **IC2** Method: **IC**

MBLK Sample ID: **MBLK-93507-93507** Units: **µg/sample** Analysis Date: **8/31/2023 10:55 AM**

Client ID: Run ID: **IC2_230831A** SeqNo: **3158872** Prep Date: **8/29/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	ND	1.0								
Sulfur Dioxide	ND	1.0								

LCS Sample ID: **LCS-93507-93507** Units: **µg/sample** Analysis Date: **8/31/2023 11:01 AM**

Client ID: Run ID: **IC2_230831A** SeqNo: **3158873** Prep Date: **8/29/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.476	1.0	5	0	110	79-130	0			
Sulfur Dioxide	6.138	1.0	5	0	123	68.6-146	0			

LCSD Sample ID: **LCSD-93507-93507** Units: **µg/sample** Analysis Date: **8/31/2023 11:08 AM**

Client ID: Run ID: **IC2_230831A** SeqNo: **3158874** Prep Date: **8/29/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.437	1.0	5	0	109	79-130	5.476	0.709	20	
Sulfur Dioxide	6.285	1.0	5	0	126	68.6-146	6.138	2.37	20	

The following samples were analyzed in this batch: 23081107-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 06-Sep-23

Client: ALS Environmental
Project: VA23B9414
WorkOrder: **23081107**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **ALS-VANCOUVER** Date/Time Received: **23-Aug-23 10:21**

Work Order: **23081107** Received by: **CA**

Checklist completed by Alec Bolender (eSignature) 23-Aug-23 (Date) Reviewed by: Hannah Ponder (eSignature) 23-Aug-23 (Date)

Matrices: air

Carrier name: DHL

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	16.1	120258	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Chain of Custody

ALS Environmental - Vancouver
8081 Lougheed Highway
Burnaby BC Canada V5A 1W9

23081107

135488

Destination Lab:	**USA - Cincinnati**
Address:	4388 Glendale-Milford Road Cincinnati OH United States 45242
Client:	BW Gold Ltd.
Work Order Number:	**VA23B9414**
Original Receipt Date/Time	Instructions Received
17/08/2023 13:25	

Relinquished By

Date/Time

Received By

Date/Time
8/23/23 1021

Receipt Temp 16.1°C 120258

cooler + 1 ice pack

Return as Indicated: Results: alsev.datasublet@alsglobal.com Invoice: alsev.datasublet@alsglobal.com Electronic Data: alsev.datasublet@alsglobal.com

Attention: Amber Springer

ALS Sample ID	Client ID	Matrix	Container Type	Test Codes	Method Description	Due Date	Sampling Date and Time	Remarks
VA23B9414-002	RAD1	Air	Original packaging	Dioxides	Dioxides by Radiello in Air	08-09-2023	15/08/2023 19:30	

DHL

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 014

Page 1 of

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Mark Warbanski or Sarah Harrison
Phone:	778-818-0327 or 250-818-3785
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Quality Control (QC) Report with Report ☐ YES ☐ NO

☑ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: Envirogeneral@artemisgoldinc.com

Email 2: ktanaka@artemisgoldinc.com

Email 3:

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: Accounts@artemisgoldinc.com

Email 2: mwarkbanski@artemisgoldinc.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:		Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):	9414	ALS Contact: Amber Springer	Sampler:

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10	Radiello NO2 and SO2	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	78105	15-08-23	(24:00)	Particulate			R			
	77682	15-08-23	(24:00)	Particulate		R				
	RAD1	15-08-23	16:30	Radiello				R		

Environmental Division Vancouver

Work Order Reference VA23B9414

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Time for 78105/77682 = Total Time Sampled July 1 at 14:05 finished Aug 15 16:21

RAD1 Start

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | Ice Packs ☑ | Ice Cubes ☐ | Cooling Initiated ☐

SIF Observations: Yes ☐ No ☐

Custody seal intact: Yes ☐ No ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
					2.5		

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by: JC	Date: 17/8/23	Time: 1025am

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 014

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Sarah
Phone:	778-210-0261 or 250-818-3785
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☐ YES ☐ NO
☑ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	Envirogeneral@artemisgoldinc.com
Email 2	ktanaka@artemisgoldinc.com
Email 3	

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	Invoices@artemisgoldinc.com
Email 2	Sharrison@artemisgoldinc.com

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:		Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		ALS Contact: Amber Springer	Sampler: BC

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	77683 (total Volume = 21.6 m3)	10-Aug-23	23:59	Particulate	1	R			
	77684 (total Volume = 20.9 m3)	7-Aug-23	23:14	Particulate	1	R			
	77685 (total Volume = 21.6 m3)	4-Aug-23	23:59	Particulate	1	R			
	77686 (total Volume = 21.6 m3)	1-Aug-23	23:59	Particulate	1	R			
	77687 (total Volume = 21.6 m3)	29-Jul-23	23:59	Particulate	1	R			
	77688 (total Volume = 21.6 m3)	26-Jul-23	23:59	Particulate	1	R			
	77689 (total Volume = 21.6 m3)	23-Jul-23	23:59	Particulate	1	R			
	77690 (total Volume = 21.6 m3)	20-Jul-23	23:59	Particulate	1	R			
	77691 run status: 0BAD (no sample data)	17-Jul-23	n/a	Particulate	1				
	77692 (total Volume = 21.6 m3)	14-Jul-23	23:59	Particulate	1	R			
	77693 (total Volume = 21.6 m3)	11-Jul-23	23:59	Particulate	1	R			
	77694 (total Volume = 12.8 m3), run status 100000	8-Jul-23	14:16	Particulate	1	R			

Environmental Division
Vancouver
Work Order Reference
VA23B9414

Telephone : +1 604 253 4188

~~Drinking Water (DW) Samples[1] (client use)~~

~~Are samples taken from a Regulated DW System?~~

~~☐ YES ☑ NO~~

Are samples for human consumption/ use?

☐ YES ☑ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Time = Total Time Sampled, 23:59 = 24:00, formatting in COC excel shows 24:00 as 0:00

~~SAMPLE CONDITION AS RECEIVED (lab use only)~~

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 014

Report To	Contact and company name below will appear on the final report
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Contact:	Sarah
Phone:	778-210-0261 or 250-818-3785
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City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Quality Control (QC) Report with Report ☐ YES ☐ NO

☑ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: Envirogeneral@artemisgoldinc.com

Email 2: ktanaka@artemisgoldinc.com

Email 3:

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: Invoices@artemisgoldinc.com

Email 2: Sharrison@artemisgoldinc.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information

ALS Account # / Quote #:	
Job #:	
PO / AFE:	
LSD:	
ALS Lab Work Order # (lab use only):	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Contact: Amber Springer Sampler: BC

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	77695 (total Volume = 21.6 m3)	5-Jul-23	23:59	Particulate	1	R			
	77696 (total Volume = 21.6 m3)	2-Jul-23	23:59	Particulate	1	R			
	77699 (total Volume = 21.6 m3)	14-Jun-23	23:59	Particulate	1	R			
	78155 (total Volume = 2.41 m3)	10-Aug-23	23:59	Particulate	1		R		
	77188 (total Volume = 2.33 m3)	7-Aug-23	23:59	Particulate	1		R		
	77717 (total Volume = 2.41 m3)	4-Aug-23	23:59	Particulate	1		R		
	77703 (total Volume = 2.41 m3)	1-Aug-23	23:59	Particulate	1		R		
	21530 (total Volume = 2.41 m3)	29-Jul-23	23:59	Particulate	1		R		
	77720 (total Volume = 2.40 m3)	26-Jul-23	23:59	Particulate	1		R		
	77726 (total Volume = 2.41 m3)	23-Jul-23	23:59	Particulate	1		R		
	77704 (total Volume = 2.41 m3)	20-Jul-23	23:59	Particulate	1		R		
	77702 (run status: 0BAD (no sample data)	17-Jul-23	n/a	Particulate	1				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Time = Total Time Sampled

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 014

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Sarah
Phone:	778-210-0261 or 250-818-3785
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Quality Control (QC) Report with Report ☐ YES ☐ NO

☑ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: Envirogeneral@artemisgoldinc.com

Email 2: ktanaka@artemisgoldinc.com

Email 3:

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: Invoices@artemisgoldinc.com

Email 2: Sharrison@artemisgoldinc.com

Project Information

ALS Account # / Quote #:

Job #:

PO / AFE:

LSD:

Oil and Gas Required Fields (client use)

AFE/Cost Center: PO#

Major/Minor Code: Routing Code:

Requisitioner:

Location:

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer Sampler: BC

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Analysis Request

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PM2.5	PM10	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	77724 (total Volume = 2.41 m3)	14-Jul-23	23:59	Particulate	1		R			
	77728 (total Volume = 2.41 m3)	11-Jul-23	23:59	Particulate	1		R			
	RP68929 (total Volume = 1.43 m3)	8-Jul-23	14:16	Particulate	1		R			
	RP76461 (total Volume = 2.40 m3)	5-Jul-23	23:59	Particulate	1		R			
	77723 (total Volume = 2.40 m3)	2-Jul-23	23:59	Particulate	1		R			
	77725 (total Volume = 2.41 m3)	14-Jun-23	23:59	Particulate	1		R			

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?

☐ YES ☑ NO

Are samples for human consumption/ use?

☐ YES ☑ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Time = Total Time Sampled

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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.

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C2027**	Page	: 1 of 2
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 14-Sep-2023 11:50
PO	: 12970	Date Analysis Commenced	: 11-Oct-2023
C-O-C number	: 17-016	Issue Date	: 11-Oct-2023 17:04
Sampler	: ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 2		
No. of samples analysed	: 2		

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*
Paolo Obillo	Account Manager Assistant	Internal Subcontracting, Cincinnati, Ohio

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*
ppbv	parts per billion (volume/volume)

<: 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: **Sorbent Tube**
(Matrix: **Air**)

Analyte	*CAS Number*	*Method/Lab*	*LOR*	*Unit*	*Client sample ID*	**RD1**	**RD1 DUP**	**----**	**----**	**----**
					Client sampling date / time	11-Sep-2023 14:51	11-Sep-2023 14:51	----	----	----
						VA23C2027-001	**VA23C2027-002**	**--------**	**--------**	**--------**
						Result	Result	----	----	----
Inorganics										
Sulfur dioxide (as SO2)	7446-09-5	Dioxides m/v/1A	1	ppbv		<0.24	<0.24	----	----	----
Nitrogen dioxide (as NO2)	10102-44-0	Dioxides m/v/1A	1	ppbv		2.2	1.9	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23C2027**	Page	: 1 of 2
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 14-Sep-2023 11:50
PO	: 12970	Date Analysis Commenced	: 11-Oct-2023
C-O-C number	: 17-016	Issue Date	: 11-Oct-2023 17:04
Sampler	: ---- ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 2		
No. of samples analysed	: 2		

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:

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*
Paolo Obillo	Account Manager Assistant	USA - Cincinnati Internal Subcontracting, Cincinnati, Ohio

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.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C2027**	Page	: 1 of 4
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 14-Sep-2023 11:50
PO	: 12970	Issue Date	: 11-Oct-2023 17:04
C-O-C number	: 17-016		
Sampler	: ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 2		
No. of samples analysed	: 2		

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 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: **Air**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Inorganics : Dioxides by Radiello in Air (ppbv)										
Original packaging										
RD1	Dioxides m/v	11-Sep-2023	----	----	----		11-Oct-2023	----	30 days	
Inorganics : Dioxides by Radiello in Air (ppbv)										
Original packaging										
RD1 DUP	Dioxides m/v	11-Sep-2023	----	----	----		11-Oct-2023	----	30 days	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

- **No Quality Control data available for this section.**

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
Dioxides by Radiello in Air (ppbv)	Dioxides m/v Cincinnati - Environmental - 4388 Glendale-Milford Road Cincinnati Ohio United States 45242	Air	See attached report.	See attached report

27-Sep-2023

Amber Springer
ALS Environmental
8081 Lougheed HWY
Suite 100
Burnaby, BC V5A 1W9

Re: **VA23C2027** Work Order: **23090700**

Dear Amber,

ALS Environmental received 2 samples on 20-Sep-2023 09:53 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 8.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Hannah Ponder

Electronically approved by: Hannah Ponder

Hannah Ponder

Report of Laboratory Analysis

ALS Environmental

Date: 27-Sep-23

Client: ALS Environmental
Project: VA23C2027
Work Order: **23090700**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
23090700-01	RD1	Air		9/11/2023 17:51	9/20/2023 09:53	☐
23090700-02	RD1 DUP	Air		9/11/2023 17:51	9/20/2023 09:53	☐

Client: ALS Environmental
Project: VA23C2027
Work Order: 23090700

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

Compound identification is based upon retention time matching only. Any compound with a similar retention time will interfere.

Samples were prepared and analyzed by the analytical method and the laboratory's applicable standard operating procedure listed below:
- IH-001- "Determination of Analytes Using NIOSH and OSHA Methods Using Gas Chromatography."
- IH-002- "Determination of Suspended Particulates in the Atmosphere Using Various Media"
- IH-003- "Determination of Suspended Particulates Not Otherwise Regulated (Total and Respirable)."
- IH-004- "Determination of Analytes by NIOSH and OSHA Methods Using Liquid Chromatography."
- IH-005- "Benzene-Soluble Fraction and Total Particulate (Asphalt Fume)."
- IH-006- "Methods IO-3.1 and IO-3.4 Modified for Metals Preparation and Analysis for Suspended Particulates."
- IH-007- "Colorimetric Determination of Hydrogen Sulfide in Air."
- IH-196- "Carbon Black by OSHA 196."
- IH-6009- "Determination of Mercury in Industrial Hygiene Samples by Manual Cold Vapor Atomic Absorption Spectroscopy."
- ENV-6010B- "Determination of Trace Metals in Solution by Inductively Coupled Plasma-Atomic Emission Spectroscopy by EPA Method 6010B Non-VAP."
- IH-7300 modified- "Elements by ICP."

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

All sampling information was provided by the client.

ALS Environmental

Date: *27-Sep-23*

Client: ALS Environmental
Project: VA23C2027

Work Order: 23090700

Analytical Results

Lab ID: 23090700-01A
Collection Date: 9/11/2023 5:51:00 PM
Client Sample ID: RD1
Matrix: AIR

Analyses

DIOXIDES BY RADIELLO		Method: IC	Time (Min): 9034	Analyst: JAP
Date Analyzed: 9/21/2023 15:22		Reporting Limit		
	µg/sample	µg/sample	ppb	
Nitrogen Dioxide	**2.8**	**1.0**	**2.2**	
Sulfur Dioxide	ND	1.0	<0.24	

Lab ID: 23090700-02A
Collection Date: 9/11/2023 5:51:00 PM
Client Sample ID: RD1 DUP
Matrix: AIR

Analyses

DIOXIDES BY RADIELLO		Method: IC	Time (Min): 9034	Analyst: JAP
Date Analyzed: 9/21/2023 15:28		Reporting Limit		
	µg/sample	µg/sample	ppb	
Nitrogen Dioxide	**2.4**	**1.0**	**1.9**	
Sulfur Dioxide	ND	1.0	<0.24	

Note:

ALS Environmental

Date: 27-Sep-23

Client: ALS Environmental

Work Order: 23090700

Project: VA23C2027

QC BATCH REPORT

Batch ID: **93918** Instrument ID **IC2** Method: **IC**

MBLK Sample ID: **MBLK-93918-93918** Units: **µg/sample** Analysis Date: **9/21/2023 02:54 PM**

Client ID: Run ID: **IC2_230921A** SeqNo: **3176460** Prep Date: **9/20/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	0.211	1.0								J
Sulfur Dioxide	ND	1.0								

LCS Sample ID: **LCS-93918-93918** Units: **µg/sample** Analysis Date: **9/21/2023 03:01 PM**

Client ID: Run ID: **IC2_230921A** SeqNo: **3176461** Prep Date: **9/20/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	4.776	1.0	5	0	95.5	79-130	0			
Sulfur Dioxide	5.072	1.0	5	0	101	68.6-146	0			

LCSD Sample ID: **LCSD-93918-93918** Units: **µg/sample** Analysis Date: **9/21/2023 03:08 PM**

Client ID: Run ID: **IC2_230921A** SeqNo: **3176462** Prep Date: **9/20/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.348	1.0	5	0	107	79-130	4.776	11.3	20	
Sulfur Dioxide	5.154	1.0	5	0	103	68.6-146	5.072	1.6	20	

The following samples were analyzed in this batch: 23090700-01A 23090700-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 27-Sep-23

Client: ALS Environmental
Project: VA23C2027
WorkOrder: **23090700**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **ALS-VANCOUVER** Date/Time Received: **20-Sep-23 09:53**

Work Order: **23090700** Received by: **AB1**

Checklist completed by Chantel.Allen (eSignature) 20-Sep-23 (Date) Reviewed by: Hannah Ponder (eSignature) 22-Sep-23 (Date)

Matrices: Air
Carrier name: DHL

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☐	No ☑	
Temperature(s)/Thermometer(s):	3.0	120258	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	09/20/2023 10:48		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes: received on ice packs

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Chain of Custody

ALS Environmental - Vancouver
8081 Lougheed Highway
Burnaby BC Canada V5A 1W9

PREVIEW COC

Destination Lab:	**USA - Cincinnati**
Address:	4388 Glendale-Milford Road Cincinnati OH United States 45242
Client:	BW Gold Ltd.
Work Order Number:	**VA23C2027**
Original Receipt Date/Time	Instructions Received
14/09/2023 14:50	

23090700

Relinquished By

Date/Time

Received By

Date/Time 9/20/23 0953

Receipt Temp

Return as Indicated: Results: alsev.datasublet@alsglobal.com Invoice: alsev.datasublet@alsglobal.com Electronic Data: alsev.datasublet@alsglobal.com

Attention: Amber Springer

ALS Sample ID	Client ID	Matrix	Container Type	Test Codes	Method Description	Due Date	Sampling Date and Time	Remarks
VA23C2027-001	RD1	Air	Original packaging	Dioxides m/v	Dioxides by Radiello in Air (ppbv)	05-10-2023	11/09/2023 17:51	
VA23C2027-002	RD1 DUP	Air	Original packaging	Dioxides m/v	Dioxides by Radiello in Air (ppbv)	05-10-2023	11/09/2023 17:51	

OHL 3.0°C / 120258

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 016

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Mark Warbanski or Sarah Harrison
Phone:	778-818-0327 or 250-818-3785
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Quality Control (QC) Report with Report ☐ YES ☐ NO

☑ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: Envirogeneral@artemisgoldinc.com

Email 2: ktanaka@artemisgoldinc.com

Email 3:

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: Accounts@artemisgoldinc.com

Email 2: mwarkbanski@artemisgoldinc.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200%] (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information

ALS Account # / Quote #:

Job #:

PO / AFE:

LSD:

Oil and Gas Required Fields (client use)

AFE/Cost Center: | PO#

Major/Minor Code: | Routing Code:

Requisitioner:

Location:

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer | **Sampler:**

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Radello NO2 and SO2	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	RD1	11-Sep-23	14:51	Radiello	1	R		
	RD1 DUP	11-Sep-23	14:51	Radiello	1	R		

Environmental Division
Vancouver
Work Order Reference
VA23C2027

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

please upload to ems, ems id 331131

RD1 and RD1 DUP Start 5-Sep-23 08:17, Finished 11-Sep-23 14:51

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | SIF Observations Yes ☐ No ☐

Ice Packs ☐ Ice Cubes ☐ | Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
					12		

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: Jeremie Roy	Date: Sept 12 2023	Time: 0400	Received by:	Date:	Time:	Received by: JC	Date: 14-9-23	Time: 1150

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2016 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.

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C2502**	Page	: 1 of 2
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 21-Sep-2023 11:00
PO	: 12970	Date Analysis Commenced	: 04-Oct-2023
C-O-C number	: ----	Issue Date	: 04-Oct-2023 16:07
Sampler	: ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Kaitlyn Gardner	Account Manager Assistant	Internal Subcontracting, Cincinnati, Ohio

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*
ppbv	parts per billion (volume/volume)

<: 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: **Sorbent Tube** (Matrix: **Air**)

Analyte	*CAS Number*	*Method/Lab*	*LOR*	*Unit*	*Client sample ID*	**Rad 1**	**----**	**----**	**----**	**----**
					Client sampling date / time	19-Sep-2023 10:29	----	----	----	----
					VA23C2502-001	**--------**	**--------**	**--------**	**--------**	**--------**
					Result	----	----	----	----	----
Inorganics										
Sulfur dioxide (as SO2)	7446-09-5	Dioxides m/v/1A	1	ppbv		<0.19	----	----	----	----
Nitrogen dioxide (as NO2)	10102-44-0	Dioxides m/v/1A	1	ppbv		0.99	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23C2502**	Page	: 1 of 2
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 21-Sep-2023 11:00
PO	: 12970	Date Analysis Commenced	: 04-Oct-2023
C-O-C number	: ----	Issue Date	: 04-Oct-2023 16:07
Sampler	: ---- ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

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*
Kaitlyn Gardner	Account Manager Assistant	USA - Cincinnati Internal Subcontracting, Cincinnati, Ohio

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.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C2502**	Page	: 1 of 4
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 21-Sep-2023 11:00
PO	: 12970	Issue Date	: 04-Oct-2023 16:08
C-O-C number	: ----		
Sampler	: ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

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 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: **Air**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Inorganics : Dioxides by Radiello in Air (ppbv)										
Original packaging										
Rad 1	Dioxides m/v	19-Sep-2023	----	----	----		04-Oct-2023	----	15 days	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

- **No Quality Control data available for this section.**

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
Dioxides by Radiello in Air (ppbv)	Dioxides m/v Cincinnati - Environmental - 4388 Glendale-Milford Road Cincinnati Ohio United States 45242	Air	See attached report.	See attached report

Chain of Custody (COC) / Analytical Request Form

COC Number: 17 - 019

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

Page of

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Mark Warbanski
Phone:	778-818-0327
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report ☐ YES ☐ NO
☑ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: Envirogeneral@artemisgoldinc.com
Email 2: ktanaka@artemisgoldinc.com
Email 3:

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: Accounts@artemisgoldinc.com
Email 2: mwarkbanski@artemisgoldinc.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐
EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information

ALS Account # / Quote #:	
Job #:	
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#:
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: Amber Springer | Sampler:

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Radiello NO2 and SO2	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	Rad1	19-Sep-23	10:29	Radiello	1	R		

Environmental Division
Vancouver
Work Order Reference
VA23C2502

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

RAD1 Start September 11, 2023 at 14:52; finished September 19, 2023 at 10:28am. Results need to be uploaded to EMS - EMS ID 331131

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | SIF Observations Yes ☐ No ☐
Ice Packs ☑ Ice Cubes ☐ | Custody seal intact Yes ☐ No ☐
Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
	5

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: BD	Date: September 19, 2023	Time: 1059pm	Received by:	Date:	Time:	Received by: CW	Date: Sep 21	Time: 1045

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2016 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.**

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C3527**	Page	: 1 of 2
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 27-Sep-2023 10:55
PO	: 12970	Date Analysis Commenced	: 16-Oct-2023
C-O-C number	: 17-021	Issue Date	: 16-Oct-2023 18:32
Sampler	: BWG		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

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- 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*
Kaitlyn Gardner	Account Manager Assistant	Internal Subcontracting, Cincinnati, Ohio

General Comments

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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*
ppbv	parts per billion (volume/volume)

<: 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: **Air** (Matrix: **Air**)					*Client sample ID*	**Rad1**	----	----	----	----
					Client sampling date / time	26-Sep-2023 08:57	----	----	----	----
Analyte	*CAS Number*	*Method/Lab*	*LOR*	*Unit*	**VA23C3527-001**	--------	--------	--------	--------	
					Result	----	----	----	----	
Inorganics										
Sulfur dioxide (as SO2)	7446-09-5	Dioxides m/v/1A	1	ppbv	0.25	----	----	----	----	
Nitrogen dioxide (as NO2)	10102-44-0	Dioxides m/v/1A	1	ppbv	<0.71	----	----	----	----	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23C3527**	Page	: 1 of 2
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 27-Sep-2023 10:55
PO	: 12970	Date Analysis Commenced	: 16-Oct-2023
C-O-C number	: 17-021	Issue Date	: 16-Oct-2023 18:32
Sampler	: BWG ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

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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*
Kaitlyn Gardner	Account Manager Assistant	USA - Cincinnati Internal Subcontracting, Cincinnati, Ohio

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.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C3527**	Page	: 1 of 4
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 27-Sep-2023 10:55
PO	: 12970	Issue Date	: 16-Oct-2023 18:32
C-O-C number	: 17-021		
Sampler	: BWG		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

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 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: **Air**

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*	
Inorganics : Dioxides by Radiello in Air (ppbv)										
Compliant container										
Rad1	Dioxides m/v	26-Sep-2023	----	----	----		16-Oct-2023	----	20 days	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

- **No Quality Control data available for this section.**

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
Dioxides by Radiello in Air (ppbv)	Dioxides m/v Cincinnati - Environmental - 4388 Glendale-Milford Road Cincinnati Ohio United States 45242	Air	See attached report.	See attached report

16-Oct-2023

Amber Springer
ALS Environmental
8081 Lougheed HWY
Suite 100
Burnaby, BC V5A 1W9

Re: **VA23C3527** Work Order: **23100182**

Dear Amber,

ALS Environmental received 1 sample on 05-Oct-2023 10:26 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 8.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Hannah Ponder

Electronically approved by: Hannah Ponder

Hannah Ponder

Report of Laboratory Analysis

ALS Environmental

Date: 16-Oct-23

Client: ALS Environmental
Project: VA23C3527
Work Order: **23100182**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
23100182-01	VA23C3527-001	Air		9/26/2023 11:57	10/5/2023 10:26	☐

ALS Environmental

Date: 16-Oct-23

Client: ALS Environmental
Project: VA23C3527
Work Order: 23100182

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

Compound identification is based upon retention time matching only. Any compound with a similar retention time will interfere.

Samples were prepared and analyzed by the analytical method and the laboratory's applicable standard operating procedure listed below:
- IH-001- "Determination of Analytes Using NIOSH and OSHA Methods Using Gas Chromatography."
- IH-002- "Determination of Suspended Particulates in the Atmosphere Using Various Media"
- IH-003- "Determination of Suspended Particulates Not Otherwise Regulated (Total and Respirable)."
- IH-004- "Determination of Analytes by NIOSH and OSHA Methods Using Liquid Chromatography."
- IH-005- "Benzene-Soluble Fraction and Total Particulate (Asphalt Fume)."
- IH-006- "Methods IO-3.1 and IO-3.4 Modified for Metals Preparation and Analysis for Suspended Particulates."
- IH-007- "Colorimetric Determination of Hydrogen Sulfide in Air."
- IH-196- "Carbon Black by OSHA 196."
- IH-6009- "Determination of Mercury in Industrial Hygiene Samples by Manual Cold Vapor Atomic Absorption Spectroscopy."
- ENV-6010B- "Determination of Trace Metals in Solution by Inductively Coupled Plasma-Atomic Emission Spectroscopy by EPA Method 6010B Non-VAP."
- IH-7300 modified- "Elements by ICP."

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

All sampling information was provided by the client.

ALS Environmental

Date: *16-Oct-23*

Client: ALS Environmental
Project: VA23C3527

Work Order: 23100182

Analytical Results

Lab ID: 23100182-01A
Client Sample ID: VA23C3527-001

Collection Date: 9/26/2023 11:57:00 AM
Matrix: AIR

Analyses

DIOXIDES BY RADIELLO		Method: **IC**	Time (Min): **9987**	Analyst: **JAP**
Date Analyzed: 10/10/2023 10:34		Reporting Limit		
	µg/sample	µg/sample	**ppb**	
Nitrogen Dioxide	ND	1.0	<0.71	
Sulfur Dioxide	**1.2**	**1.0**	**0.25**	

Note:

ALS Environmental

Date: 16-Oct-23

Client: ALS Environmental

Work Order: 23100182

Project: VA23C3527

QC BATCH REPORT

Batch ID: **94334** Instrument ID **IC2** Method: **IC**

MBLK Sample ID: **MBLK-94334-94334** Units: **µg/sample** Analysis Date: **10/10/2023 10:06 AM**

Client ID: Run ID: **IC2_231010A** SeqNo: **3194361** Prep Date: **10/10/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	ND	1.0								
Sulfur Dioxide	ND	1.0								

LCS Sample ID: **LCS-94334-94334** Units: **µg/sample** Analysis Date: **10/10/2023 10:13 AM**

Client ID: Run ID: **IC2_231010A** SeqNo: **3194362** Prep Date: **10/10/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.166	1.0	5	0	103	79-130	0			
Sulfur Dioxide	5.422	1.0	5	0	108	68.6-146	0			

LCSD Sample ID: **LCSD-94334-94334** Units: **µg/sample** Analysis Date: **10/10/2023 10:20 AM**

Client ID: Run ID: **IC2_231010A** SeqNo: **3194363** Prep Date: **10/10/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.049	1.0	5	0	101	79-130	5.166	2.29	20	
Sulfur Dioxide	5.432	1.0	5	0	109	68.6-146	5.422	0.182	20	

The following samples were analyzed in this batch: 23100182-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 16-Oct-23

Client: ALS Environmental
Project: VA23C3527
WorkOrder: **23100182**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **ALS-VANCOUVER** Date/Time Received: **05-Oct-23 10:26**

Work Order: **23100182** Received by: **CA**

Checklist completed by Alec Bolender (eSignature) 05-Oct-23 (Date) Reviewed by: Hannah Ponder (eSignature) 06-Oct-23 (Date)

Matrices: air
Carrier name: DHL

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	6.4	120258	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Chain of Custody

ALS Environmental - Vancouver
8081 Lougheed Highway
Burnaby BC Canada V5A 1W9

23100182

145032

Destination Lab:	**USA - Cincinnati**
Address:	4388 Glendale-Milford Road Cincinnati OH United States 45242
Client:	BW Gold Ltd.
Work Order Number:	**VA23C3527**
Original Receipt Date/Time	Instructions Received
27/09/2023 13:55	

Relinquished By

Date/Time

Received By

Date/Time 1026 10/5/23

Receipt Temp 6.4°C 120255

ice pack

Return as Indicated: Results: alsev.datasublet@alsglobal.com Invoice: alsev.datasublet@alsglobal.com Electronic Data: alsev.datasublet@alsglobal.com

Attention: Amber Springer

ALS Sample ID	Client ID	Matrix	Container Type	Test Codes	Method Description	Due Date	Sampling Date and Time	Remarks
VA23C3527-001	Rad1	Air	Compliant container	Dioxides m/v	Dioxides by Radiello in Air (ppbv)	20-10-2023	26/09/2023 11:57	

DHL

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 021

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Mark Warbanski
Phone:	778-818-0327
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report ☐ YES ☐ NO
☑ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: Envirogeneral@artemisgoldinc.com
Email 2: ktanaka@artemisgoldinc.com
Email 3:

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: Accounts@artemisgoldinc.com
Email 2: mwarkbanski@artemisgoldinc.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days)
- 4 day [P4-20%] ☐
- 3 day [P3-25%] ☐
- 2 day [P2-50%] ☐

EMERGENCY
- 1 Business day [E - 100%] ☐
- Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:		Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		ALS Contact: Amber Springer	Sampler: BWG

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Radiello NO2 and SO2	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	Rad1	26-Sep-23	8:57	Radiello	1	R		

Environmental Division
Vancouver
Work Order Reference
VA23C3527

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

RAD1 Start September 19, 2023 at 10:29; finished September 26, 2023 at 8:56am. Results need to be uploaded to EMS - EMS ID 331131

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐
Ice Packs ☑ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐
Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
							6

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date: September 26, 2023	Time: 10:00	Received by:	Date:	Time:	Received by:	Date: 9/27/23	Time: 10:55 AM

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2018 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C4260**	Page	: 1 of 2
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 11-Oct-2023 11:11
PO	: 12970	Date Analysis Commenced	: 24-Oct-2023
C-O-C number	: 17-023	Issue Date	: 26-Oct-2023 17:14
Sampler	: BWG		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Kaitlyn Gardner	Account Manager Assistant	Internal Subcontracting, Cincinnati, Ohio

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*
ppbv	parts per billion (volume/volume)

<: 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: **Air**
(Matrix: **Air**)

Analyte	*CAS Number*	*Method/Lab*	*LOR*	*Unit*	*Client sample ID*	**Rad1**	**----**	**----**	**----**	**----**
					Client sampling date / time	03-Oct-2023 14:35	----	----	----	----
						VA23C4260-001	**--------**	**--------**	**--------**	**--------**
						Result	----	----	----	----
Inorganics										
Sulfur dioxide (as SO2)	7446-09-5	Dioxides m/v/1A	1	ppbv		<0.21	----	----	----	----
Nitrogen dioxide (as NO2)	10102-44-0	Dioxides m/v/1A	1	ppbv		1.2	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23C4260**	Page	: 1 of 2
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 11-Oct-2023 11:11
PO	: 12970	Date Analysis Commenced	: 24-Oct-2023
C-O-C number	: 17-023	Issue Date	: 26-Oct-2023 17:15
Sampler	: BWG ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

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*
Kaitlyn Gardner	Account Manager Assistant	USA - Cincinnati Internal Subcontracting, Cincinnati, Ohio

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.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C4260**	Page	: 1 of 4
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 11-Oct-2023 11:11
PO	: 12970	Issue Date	: 26-Oct-2023 17:15
C-O-C number	: 17-023		
Sampler	: BWG		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

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 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: **Air**

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*	
Inorganics : Dioxides by Radiello in Air (ppbv)										
Compliant container										
Rad1	Dioxides m/v	03-Oct-2023	----	----	----		24-Oct-2023	----	21 days	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

- **No Quality Control data available for this section.**

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
Dioxides by Radiello in Air (ppbv)	Dioxides m/v Cincinnati - Environmental - 4388 Glendale-Milford Road Cincinnati Ohio United States 45242	Air	See attached report.	See attached report

24-Oct-2023

Amber Springer
ALS Environmental
8081 Lougheed HWY
Suite 100
Burnaby, BC V5A 1W9

Re: **VA23C4260** Work Order: **23100715**

Dear Amber,

ALS Environmental received 1 sample on 17-Oct-2023 10:56 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 7.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Hannah Ponder

Electronically approved by: Danielle Strasinger

Hannah Ponder

Report of Laboratory Analysis

ALS Environmental

Date: 24-Oct-23

Client: ALS Environmental
Project: VA23C4260
Work Order: **23100715**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
23100715-01	VA23C4260-001	Air		10/3/2023 17:35	10/17/2023 10:56	☐

ALS Environmental

Date: 24-Oct-23

Client: ALS Environmental
Project: VA23C4260
Work Order: 23100715

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

Compound identification is based upon retention time matching only. Any compound with a similar retention time will interfere.

Samples were prepared and analyzed by the analytical method and the laboratory's applicable standard operating procedure listed below:
- IH-001- "Determination of Analytes Using NIOSH and OSHA Methods Using Gas Chromatography."
- IH-002- "Determination of Suspended Particulates in the Atmosphere Using Various Media"
- IH-003- "Determination of Suspended Particulates Not Otherwise Regulated (Total and Respirable)."
- IH-004- "Determination of Analytes by NIOSH and OSHA Methods Using Liquid Chromatography."
- IH-005- "Benzene-Soluble Fraction and Total Particulate (Asphalt Fume)."
- IH-006- "Methods IO-3.1 and IO-3.4 Modified for Metals Preparation and Analysis for Suspended Particulates."
- IH-007- "Colorimetric Determination of Hydrogen Sulfide in Air."
- IH-196- "Carbon Black by OSHA 196."
- IH-6009- "Determination of Mercury in Industrial Hygiene Samples by Manual Cold Vapor Atomic Absorption Spectroscopy."
- ENV-6010B- "Determination of Trace Metals in Solution by Inductively Coupled Plasma-Atomic Emission Spectroscopy by EPA Method 6010B Non-VAP."
- IH-7300 modified- "Elements by ICP."

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

All sampling information was provided by the client.

ALS Environmental

Date: *24-Oct-23*

Client: ALS Environmental
Project: VA23C4260

Work Order: 23100715

Analytical Results

Lab ID: 23100715-01A
Client Sample ID: VA23C4260-001

Collection Date: 10/3/2023 5:35:00 PM
Matrix: AIR

Analyses

DIOXIDES BY RADIELLO Method: **IC** Time (Min): **10418** Analyst: **JAP**

Date Analyzed: 10/23/2023 12:48

	µg/sample	Reporting Limit µg/sample	ppb
Nitrogen Dioxide	**1.8**	**1.0**	**1.2**
Sulfur Dioxide	ND	1.0	<0.21

Note:

ALS Environmental

Date: 24-Oct-23

Client: ALS Environmental
Work Order: 23100715
Project: VA23C4260

QC BATCH REPORT

Batch ID: **94630** Instrument ID **IC2** Method: **IC**

MBLK Sample ID: **MBLK-94630-94630** Units: **µg/sample** Analysis Date: **10/23/2023 12:20 PM**
Client ID: Run ID: **IC2_231023A** SeqNo: **3208403** Prep Date: **10/23/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	ND	1.0								
Sulfur Dioxide	ND	1.0								

LCS Sample ID: **LCS-94630-94630** Units: **µg/sample** Analysis Date: **10/23/2023 12:27 PM**
Client ID: Run ID: **IC2_231023A** SeqNo: **3208404** Prep Date: **10/23/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	6.37	1.0	5	0	127	79-130	0			
Sulfur Dioxide	7.856	1.0	5	0	157	68.6-146	0			S

LCSD Sample ID: **LCSD-94630-94630** Units: **µg/sample** Analysis Date: **10/23/2023 12:34 PM**
Client ID: Run ID: **IC2_231023A** SeqNo: **3208405** Prep Date: **10/23/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.004	1.0	5	0	100	79-130	6.37	24	20	R
Sulfur Dioxide	6.628	1.0	5	0	133	68.6-146	7.856	17	20	

The following samples were analyzed in this batch: 23100715-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 24-Oct-23

Client: ALS Environmental
Project: VA23C4260
WorkOrder: **23100715**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **ALS-VANCOUVER** Date/Time Received: **17-Oct-23 10:56**

Work Order: **23100715** Received by: **CA**

Checklist completed by Alec Bolender (eSignature) 17-Oct-23 (Date) Reviewed by: Hannah Ponder (eSignature) 19-Oct-23 (Date)

Matrices: air
Carrier name: DHL

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☐	No ☑	
Sample(s) received on ice?	Yes ☐	No ☑	
Temperature(s)/Thermometer(s):	15.9		120258
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes: ice pack melted

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here
(lab use only)

COC Number: 17 - 023

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Mark Warbanski
Phone:	778-818-0327
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☐ YES ☐ NO
☑ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	Envirogeneral@artemisgoldinc.com
Email 2	ktanaka@artemisgoldinc.com
Email 3	

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	Accounts@artemisgoldinc.com
Email 2	mwarkbanski@artemisgoldinc.com

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:		Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		ALS Contact: Amber Springer	Sampler: BWG

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days)		EMERGENCY	
4 day [P4-20%]	☐	1 Business day [E - 100%]	☐
3 day [P3-25%]	☐	Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)]	☐
2 day [P2-50%]	☐		

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Radello NO2 and SO2	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	RAD1	3-Oct-23	14:35	Radiello	1	R		

Environmental Division
Vancouver
Work Order Reference
VA23C4260

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	
Are samples for human consumption/ use? ☐ YES ☑ NO	RAD1 Start 26-Sep-23 08:57, Finished 3-Oct-23 14:35, Please Upload to EMS E331131

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	☐	SIF Observations	Yes ☐	No	☐
Ice Packs	☑ Ice Cubes ☐	Custody seal intact	Yes ☐	No	☐
Cooling Initiated	☐				

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
	13

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: Jeremie Roy	Date: Oct 6, 2023	Time:	Received by:	Date:	Time:	Received by:	Date: OCT 11 2023	Time: 11:11

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2016 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.**

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C5162**	Page	: 1 of 2
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 19-Oct-2023 10:15
PO	: 15180	Date Analysis Commenced	: 31-Oct-2023
C-O-C number	: 17-025	Issue Date	: 31-Oct-2023 13:00
Sampler	: BWG		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 3		
No. of samples analysed	: 3		

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*
Kaitlyn Gardner	Account Manager Assistant	Internal Subcontracting, Cincinnati, Ohio

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*
ppbv	parts per billion (volume/volume)

<: 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: **Air**
(Matrix: **Air**)

Analyte	*CAS Number*	*Method/Lab*	*LOR*	*Unit*	*Client sample ID*	**Rad1**	**Rad1**	**Rad1 DUP**	**----**	**----**
					Client sampling date / time	10-Oct-2023 10:27	17-Oct-2023 07:34	17-Oct-2023 07:34	----	----
						VA23C5162-001	**VA23C5162-002**	**VA23C5162-003**	**--------**	**--------**
						Result	Result	Result	----	----
Inorganics										
Sulfur dioxide (as SO2)	7446-09-5	Dioxides m/v/1A	1	ppbv		<0.22	<0.22	<0.22	----	----
Nitrogen dioxide (as NO2)	10102-44-0	Dioxides m/v/1A	1	ppbv		<0.72	<0.72	<0.72	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23C5162**	Page	: 1 of 2
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 19-Oct-2023 10:15
PO	: 15180	Date Analysis Commenced	: 31-Oct-2023
C-O-C number	: 17-025	Issue Date	: 31-Oct-2023 13:00
Sampler	: BWG ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 3		
No. of samples analysed	: 3		

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:

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*
Kaitlyn Gardner	Account Manager Assistant	USA - Cincinnati Internal Subcontracting, Cincinnati, Ohio

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.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C5162**	Page	: 1 of 4
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 19-Oct-2023 10:15
PO	: 15180	Issue Date	: 31-Oct-2023 13:00
C-O-C number	: 17-025		
Sampler	: BWG		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 3		
No. of samples analysed	: 3		

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 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: **Air**

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*
Inorganics : Dioxides by Radiello in Air (ppbv)										
Original packaging										
Rad1	Dioxides m/v	17-Oct-2023	----	----	----		31-Oct-2023	----	14 days	
Inorganics : Dioxides by Radiello in Air (ppbv)										
Original packaging										
Rad1 DUP	Dioxides m/v	17-Oct-2023	----	----	----		31-Oct-2023	----	14 days	
Inorganics : Dioxides by Radiello in Air (ppbv)										
Original packaging										
Rad1	Dioxides m/v	10-Oct-2023	----	----	----		31-Oct-2023	----	21 days	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

- **No Quality Control data available for this section.**

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
Dioxides by Radiello in Air (ppbv)	Dioxides m/v Cincinnati - Environmental - 4388 Glendale-Milford Road Cincinnati Ohio United States 45242	Air	See attached report.	See attached report

31-Oct-2023

Amber Springer
ALS Environmental
8081 Lougheed HWY
Suite 100
Burnaby, BC V5A 1W9

Re: **VA23C5162** Work Order: **23101053**

Dear Amber,

ALS Environmental received 3 samples on 25-Oct-2023 10:03 AM for the analyses presented in the following report.

This is a REVISED REPORT. The Case Narrative provides information discussing the reason for issuing a revised report. The total number of pages in this revision is 9.

If you have any questions regarding these test results, please feel free to contact me.

Sincerely,

Hannah Ponder

Electronically approved by: Hannah Ponder

Hannah Ponder

Report of Laboratory Analysis

ALS Environmental

Date: 31-Oct-23

Client: ALS Environmental
Project: VA23C5162
Work Order: **23101053**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
23101053-01	VA23C5162-001	Air		10/10/2023 13:27	10/25/2023 10:03	☐
23101053-02	VA23C5162-002	Air		10/17/2023 10:34	10/25/2023 10:03	☐
23101053-03	VA23C5162-003	Air		10/17/2023 10:34	10/25/2023 10:03	☐

ALS Environmental

Date: 31-Oct-23

Client: ALS Environmental
Project: VA23C5162
Work Order: 23101053

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

Compound identification is based upon retention time matching only. Any compound with a similar retention time will interfere.

Samples were prepared and analyzed by the analytical method and the laboratory's applicable standard operating procedure listed below:
- IH-001- "Determination of Analytes Using NIOSH and OSHA Methods Using Gas Chromatography."
- IH-002- "Determination of Suspended Particulates in the Atmosphere Using Various Media"
- IH-003- "Determination of Suspended Particulates Not Otherwise Regulated (Total and Respirable)."
- IH-004- "Determination of Analytes by NIOSH and OSHA Methods Using Liquid Chromatography."
- IH-005- "Benzene-Soluble Fraction and Total Particulate (Asphalt Fume)."
- IH-006- "Methods IO-3.1 and IO-3.4 Modified for Metals Preparation and Analysis for Suspended Particulates."
- IH-007- "Colorimetric Determination of Hydrogen Sulfide in Air."
- IH-196- "Carbon Black by OSHA 196."
- IH-6009- "Determination of Mercury in Industrial Hygiene Samples by Manual Cold Vapor Atomic Absorption Spectroscopy."
- ENV-6010B- "Determination of Trace Metals in Solution by Inductively Coupled Plasma-Atomic Emission Spectroscopy by EPA Method 6010B Non-VAP."
- IH-7300 modified- "Elements by ICP."

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

All sampling information was provided by the client.

Report revised 10.31.23 to add sample times and change reporting units.

ALS Environmental

Date: *31-Oct-23*

Client: ALS Environmental
Project: VA23C5162

Work Order: 23101053

Analytical Results

Lab ID: 23101053-01A
Collection Date: 10/10/2023 1:27:00 PM
Client Sample ID: VA23C5162-001
Matrix: AIR

Analyses

DIOXIDES BY RADIELLO		Method: IC	Time (Min): 9831	Analyst: JAP
Date Analyzed: 10/31/2023 10:22		Reporting Limit		
	µg/sample	µg/sample	ppb	
Nitrogen Dioxide	ND	10	<0.72	
Sulfur Dioxide	ND	10	<0.22	

Lab ID: 23101053-02A
Collection Date: 10/17/2023 10:34:00 AM
Client Sample ID: VA23C5162-002
Matrix: AIR

Analyses

DIOXIDES BY RADIELLO		Method: IC	Time (Min): 9907	Analyst: JAP
Date Analyzed: 10/31/2023 10:28		Reporting Limit		
	µg/sample	µg/sample	ppb	
Nitrogen Dioxide	ND	10	<0.72	
Sulfur Dioxide	ND	10	<0.22	

Lab ID: 23101053-03A
Collection Date: 10/17/2023 10:34:00 AM
Client Sample ID: VA23C5162-003
Matrix: AIR

Analyses

DIOXIDES BY RADIELLO		Method: IC	Time (Min): 9907	Analyst: JAP
Date Analyzed: 10/31/2023 10:35		Reporting Limit		
	µg/sample	µg/sample	ppb	
Nitrogen Dioxide	ND	10	<0.72	
Sulfur Dioxide	ND	10	<0.22	

Note:

ALS Environmental

Date: 31-Oct-23

Client: ALS Environmental

Work Order: 23101053

Project: VA23C5162

QC BATCH REPORT

Batch ID: **94798** Instrument ID **IC2** Method: **IC**

MBLK Sample ID: **MBLK-94798-94798** Units: **µg/sample** Analysis Date: **10/30/2023 02:55 PM**

Client ID: Run ID: **IC2_231030A** SeqNo: **3216546** Prep Date: **10/30/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	ND	1.0								
Sulfur Dioxide	ND	1.0								

LCS Sample ID: **LCS-94798-94798** Units: **µg/sample** Analysis Date: **10/30/2023 03:02 PM**

Client ID: Run ID: **IC2_231030A** SeqNo: **3216547** Prep Date: **10/30/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.169	1.0	5	0	103	79-130	0			
Sulfur Dioxide	5.818	1.0	5	0	116	68.6-146	0			

LCSD Sample ID: **LCSD-94798-94798** Units: **µg/sample** Analysis Date: **10/31/2023 10:01 AM**

Client ID: Run ID: **IC2_231030A** SeqNo: **3216549** Prep Date: **10/30/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.398	1.0	5	0	108	79-130	5.169	4.34	20	
Sulfur Dioxide	5.745	1.0	5	0	115	68.6-146	5.818	1.27	20	

The following samples were analyzed in this batch: 23101053-01A 23101053-02A 23101053-03A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 31-Oct-23

Client: ALS Environmental
Project: VA23C5162
WorkOrder: **23101053**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **ALS-VANCOUVER** Date/Time Received: **25-Oct-23 10:03**

Work Order: **23101053** Received by: **AB1**

Checklist completed by Alec Bolender (eSignature) 25-Oct-23 (Date) Reviewed by: Hannah Ponder (eSignature) 31-Oct-23 (Date)

Matrices: air

Carrier name: DHL

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	12.4	120258	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Chain of Custody

ALS Environmental - Vancouver
8081 Lougheed Highway
Burnaby BC Canada V5A 1W9

149534

Destination Lab:	**USA - Cincinnati**
Address:	4388 Glendale-Milford Road Cincinnati OH United States 45242
Client:	BW Gold Ltd.
Work Order Number:	**VA23C5162**
Original Receipt Date/Time	Instructions Received
19/10/2023 13:15	

Reg TAT

23101053

Relinquished By	
Date/Time	
Received By	
Date/Time	20/10/23 1003
Receipt Temp	

Return as Indicated: Results: alsev.datasublet@alsglobal.com Invoice: alsev.datasublet@alsglobal.com Electronic Data: alsev.datasublet@alsglobal.com

Attention: Amber Springer

ALS Sample ID	Client ID	Matrix	Container Type	Test Codes	Method Description	Due Date	Sampling Date and Time	Remarks
VA23C5162-001	Rad1	Air	Original packaging	Dioxides m/v	Dioxides by Radiello in Air (ppbv)	09-11-2023	10/10/2023 13:27	
VA23C5162-002	Rad1	Air	Original packaging	Dioxides m/v	Dioxides by Radiello in Air (ppbv)	09-11-2023	17/10/2023 10:34	
VA23C5162-003	Rad1 DUP	Air	Original packaging	Dioxides m/v	Dioxides by Radiello in Air (ppbv)	09-11-2023	17/10/2023 10:34	

12.4°C/12025s

DHL ice packs melted

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only) 23101057

COC Number: 17 - 025

Page 1 of 1

Report To	Contact and company name below will appear on the final report	Report Format / Distribution	Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)
Company:	Blackwater Gold Mine	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:	Mark Warbanski	Quality Control (QC) Report with Report ☐ YES ☐ NO	PRIORITY (Business Days): 4 day [P4-20%] ☐ / 3 day [P3-25%] ☐ / 2 day [P2-50%] ☐ — EMERGENCY: 1 Business day [E - 100%] ☐ / Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐
Phone:	778-818-0327	☑ Compare Results to Criteria on Report - provide details below if box checked	
	Company address below will appear on the final report	Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Street:	101 - 139 1st Street East	Email 1 or Fax Envirogeneral@artemisgoldinc.com	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
City/Province:	Vanderhoof, BC	Email 2 ktanaka@artemisgoldinc.com	For tests that can not be performed according to the service level selected, you will be contacted.
Postal Code:	V0J 3A0	Email 3	

Invoice To		Invoice Distribution
	Same as Report To ☐ YES ☑ NO	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
	Copy of Invoice with Report ☐ YES ☑ NO	
Company:	Artemis Gold Inc	Email 1 or Fax Accounts@artemisgoldinc.com
Contact:	Accounts Payable	Email 2 mwarkbanski@artemisgoldinc.com

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:		Major/Minor Code:	Routing Code:
PO / AFE:	12970	Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (lab use only): 5162 — ALS Contact: Amber Springer — Sampler: BWG

Analysis Request — Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Radiello NO2 and SO2	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	Rad1	10-Oct-23	10:27	Radiello	1	R		
	Rad1	17-Oct-23	7:34	Radiello	1	R		
	Rad1 DUP	17-Oct-23	7:34	Radiello	1	R		

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	Rad 1 Start Oct. 3/23 at 14:36; finished oct 10/23 at 10:27am
Are samples for human consumption/ use? ☐ YES ☑ NO	Rad 1 start oct. 10/23 at 10:27am; finished oct 17/23 at 7:34am. Results need to be uploaded to EMS - EMS ID 331131 Rad 1 DUP start Oct 10/23 at 10:27am; finished oct 17/23 at 7:34 am.

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ — SIF Observations Yes ☐ No ☐

Ice Packs ☐ Ice Cubes ☐ — Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				5			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date: October 17, 2023	Time:	Received by:	Date:	Time:	Received by: SC	Date: 19-10-23	Time: 1015am

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION — WHITE - LABORATORY COPY — YELLOW - CLIENT COPY — NOV 2018 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

10/25/23

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 025

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Mark Warbanski
Phone:	778-818-0327
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☐ YES ☐ NO
☑ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	Envirogeneral@artemisgoldinc.com
Email 2	ktanaka@artemisgoldinc.com
Email 3	

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	Accounts@artemisgoldinc.com
Email 2	mwarkbanski@artemisgoldinc.com

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:		Major/Minor Code:	Routing Code:
PO / AFE:	12970	Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (lab use only): 5162

ALS Contact: Amber Springer Sampler: BWG

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

~~For tests that can not be performed according to the service level selected, you will be contacted.~~

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Radiello NO2 and SO2
	Rad1	10-Oct-23	10:27	Radiello	1	R
	Rad1	17-Oct-23	7:34	Radiello	1	R
	Rad1 DUP	17-Oct-23	7:34	Radiello	1	R

SAMPLES ON HOLD

SUSPECTED HAZARD (see Special Instructions)

Environmental Division
Vancouver
Work Order Reference
VA23C5162

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Rad 1 Start Oct. 3/23 at 14:36; finished oct 10/23 at 10:27am
Rad 1 start oct. 10/23 at 10:27am; finished oct 17/23 at 7:34am.
Results need to be uploaded to EMS - EMS ID 331131
Rad 1 DUP start oct 10/23 at 10:27am; finished oct 17/23 at 7:34 am.

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | SIF Observations Yes ☐ No ☐

Ice Packs ☐ Ice Cubes ☐ | Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
	5

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date: October 17, 2023	Time:	Received by:	Date:	Time:	Received by: JC	Date: 19-10-23	Time: 1015am

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2018 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C6066**	Page	: 1 of 2
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 30-Oct-2023 09:40
PO	: 15180	Date Analysis Commenced	: 09-Nov-2023
C-O-C number	: 17-027	Issue Date	: 16-Nov-2023 11:31
Sampler	: BWG		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Kaitlyn Gardner	Account Manager Assistant	Internal Subcontracting, Cincinnati, Ohio

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*
ppbv	parts per billion (volume/volume)

<: 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: **Air** (Matrix: **Air**)									
				Client sample ID	**RAD1**	**----**	**----**	**----**	**----**
				Client sampling date / time	26-Oct-2023 11:00	----	----	----	----
Analyte	*CAS Number*	*Method/Lab*	*LOR*	*Unit*	**VA23C6066-001**	**--------**	**--------**	**--------**	**--------**
					Result	----	----	----	----
Inorganics									
Sulfur dioxide (as SO2)	7446-09-5	Dioxides m/v/1A	1	ppbv	<0.16	----	----	----	----
Nitrogen dioxide (as NO2)	10102-44-0	Dioxides m/v/1A	1	ppbv	1.7	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23C6066**	Page	: 1 of 2
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 30-Oct-2023 09:40
PO	: 15180	Date Analysis Commenced	: 09-Nov-2023
C-O-C number	: 17-027	Issue Date	: 16-Nov-2023 11:32
Sampler	: BWG ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

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*
Kaitlyn Gardner	Account Manager Assistant	USA - Cincinnati Internal Subcontracting, Cincinnati, Ohio

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.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C6066**	Page	: 1 of 4
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 30-Oct-2023 09:40
PO	: 15180	Issue Date	: 16-Nov-2023 11:32
C-O-C number	: 17-027		
Sampler	: BWG		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

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 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: **Air**

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*	
Inorganics : Dioxides by Radiello in Air (ppbv)										
Original packaging										
RAD1	Dioxides m/v	26-Oct-2023	----	----	----		09-Nov-2023	----	14 days	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

- **No Quality Control data available for this section.**

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
Dioxides by Radiello in Air (ppbv)	Dioxides m/v Cincinnati - Environmental - 4388 Glendale-Milford Road Cincinnati Ohio United States 45242	Air	See attached report.	See attached report

09-Nov-2023

Amber Springer
ALS Environmental
8081 Lougheed HWY
Suite 100
Burnaby, BC V5A 1W9

Re: **VA23C6066** Work Order: **23110058**

Dear Amber,

ALS Environmental received 1 sample on 02-Nov-2023 11:23 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 8.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Hannah Ponder

Electronically approved by: Hannah Ponder

Hannah Ponder

Report of Laboratory Analysis

ALS Environmental

Date: 09-Nov-23

Client: ALS Environmental
Project: VA23C6066
Work Order: **23110058**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
23110058-01	VA23C6066-001	Air		10/26/2023 14:00	11/2/2023 11:23	☐

Client: ALS Environmental
Project: VA23C6066
Work Order: 23110058

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

Compound identification is based upon retention time matching only. Any compound with a similar retention time will interfere.

Samples were prepared and analyzed by the analytical method and the laboratory's applicable standard operating procedure listed below:
- IH-001- "Determination of Analytes Using NIOSH and OSHA Methods Using Gas Chromatography."
- IH-002- "Determination of Suspended Particulates in the Atmosphere Using Various Media"
- IH-003- "Determination of Suspended Particulates Not Otherwise Regulated (Total and Respirable)."
- IH-004- "Determination of Analytes by NIOSH and OSHA Methods Using Liquid Chromatography."
- IH-005- "Benzene-Soluble Fraction and Total Particulate (Asphalt Fume)."
- IH-006- "Methods IO-3.1 and IO-3.4 Modified for Metals Preparation and Analysis for Suspended Particulates."
- IH-007- "Colorimetric Determination of Hydrogen Sulfide in Air."
- IH-196- "Carbon Black by OSHA 196."
- IH-6009- "Determination of Mercury in Industrial Hygiene Samples by Manual Cold Vapor Atomic Absorption Spectroscopy."
- ENV-6010B- "Determination of Trace Metals in Solution by Inductively Coupled Plasma-Atomic Emission Spectroscopy by EPA Method 6010B Non-VAP."
- IH-7300 modified- "Elements by ICP."

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

All sampling information was provided by the client.

ALS Environmental

Date: *09-Nov-23*

Client: ALS Environmental
Project: VA23C6066

Work Order: 23110058

Analytical Results

Lab ID: 23110058-01A
Client Sample ID: VA23C6066-001

Collection Date: 10/26/2023 2:00:00 PM
Matrix: AIR

Analyses

DIOXIDES BY RADIELLO Method: **IC** Time (Min): **13165** Analyst: **JAP**

Date Analyzed: 11/8/2023 12:19

	µg/sample	Reporting Limit µg/sample	ppb
Nitrogen Dioxide	**3.2**	**1.0**	**1.7**
Sulfur Dioxide	ND	1.0	<0.16

Note:

ALS Environmental

Date: 09-Nov-23

Client: ALS Environmental

Work Order: 23110058

Project: VA23C6066

QC BATCH REPORT

Batch ID: **94975** Instrument ID **IC2** Method: **IC**

MBLK Sample ID: **MBLK-94975-94975** Units: **µg/sample** Analysis Date: **11/8/2023 11:51 AM**

Client ID: Run ID: **IC2_231108A** SeqNo: **3224610** Prep Date: **11/7/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	0.3446	1.0								J
Sulfur Dioxide	ND	1.0								

LCS Sample ID: **LCS-94975-94975** Units: **µg/sample** Analysis Date: **11/8/2023 11:58 AM**

Client ID: Run ID: **IC2_231108A** SeqNo: **3224611** Prep Date: **11/7/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.181	1.0	5	0	104	79-130	0			
Sulfur Dioxide	6.627	1.0	5	0	133	68.6-146	0			

LCSD Sample ID: **LCSD-94975-94975** Units: **µg/sample** Analysis Date: **11/8/2023 12:05 PM**

Client ID: Run ID: **IC2_231108A** SeqNo: **3224612** Prep Date: **11/7/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.089	1.0	5	0	102	79-130	5.181	1.78	20	
Sulfur Dioxide	6.449	1.0	5	0	129	68.6-146	6.627	2.73	20	

The following samples were analyzed in this batch: 23110058-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 09-Nov-23

Client: ALS Environmental
Project: VA23C6066
WorkOrder: **23110058**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **ALS-VANCOUVER** Date/Time Received: **02-Nov-23 11:23**

Work Order: **23110058** Received by: **AB1**

Checklist completed by Alec Bolender (eSignature) 02-Nov-23 (Date) Reviewed by: Hannah Ponder (eSignature) 06-Nov-23 (Date)

Matrices: air
Carrier name: DHL

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	12.8	120258	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Chain of Custody

ALS Environmental - Vancouver
8081 Lougheed Highway
Burnaby BC Canada V5A 1W9

151704

Destination Lab:	**USA - Cincinnati**
Address:	4388 Glendale-Milford Road Cincinnati OH United States 45242
Client:	BW Gold Ltd.
Work Order Number:	**VA23C6066**
Original Receipt Date/Time	Instructions Received
30/10/2023 12:40	

Reg TAT

23110058

Relinquished By	
Date/Time	
Received By	
Date/Time	11/2/23 1123
Receipt Temp	

Return as Indicated: Results: alsev.datasublet@alsglobal.com Invoice: alsev.datasublet@alsglobal.com Electronic Data: alsev.datasublet@alsglobal.com

Attention: Amber Springer

ALS Sample ID	Client ID	Matrix	Container Type	Test Codes	Method Description	Due Date	Sampling Date and Time	Remarks
VA23C6066-001	RAD1	Air	Original packaging	Dioxides m/v	Dioxides by Radiello in Air (ppbv)	21-11-2023	26/10/2023 14:00	

1

DHL
12.8°C /120258
ice pack melted

Chain of Custody (COC) / Analytical Request Form
www.alsglobal.com — Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 0 2 [illegible]
Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Mark Warbanski
Phone:	778-818-0327
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To YES NO
	Copy of Invoice with Report YES NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution
Select Report Format: X PDF X EXCEL X EDD (DIGITAL)
Quality Control (QC) Report with Report X YES NO
Compare Results to Criteria on Report - provide details below if box checked X
Select Distribution: EMAIL MAIL FAX
Email 1 or Fax: Envirogeneral@artemisgoldinc.com
Email 2: Ktanaka@Artemisgoldinc.com
Email 3:

Invoice Distribution
Select Invoice Distribution: EMAIL MAIL FAX
Email 1 or Fax: Accounts@artemisgoldinc.com
Email 2: mwarkbanski@artemisgoldinc.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)
Regular [R] Standard TAT if received by 3 pm - business days - no surcharges apply
PRIORITY (Business Days): 4 day [P4-20%] | 3 day [P3-25%] | 2 day [P2-50%]
EMERGENCY: 1 Business day [E - 100%] | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)]
Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
For tests that can not be performed according to the service level selected, you will be contacted.

Project Information

ALS Account # / Quote #:	
Job #:	
PO / AFE:	15180
LSD:	
ALS Lab Work Order # (lab use only):	6066

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	
ALS Contact: Amber Springer	Sampler: BWG

Analysis Request
Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Start Date	Start Time	End Date (dd-mmm-yy)	End Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Radiello NO2 and SO2	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	RAD1	17-Oct	7:35	26-Oct-23	11:00	Sorbent Tube	1	R		

Environmental Division
Vancouver
Work Order Reference
VA23C6066

Telephone : +1 604 253 4168

Drinking Water (DW) Samples1 (client use)
Are samples taken from a Regulated DW System? YES NO
Are samples for human consumption/ use? YES NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Please upload to EMS, EMS ID E331131

SAMPLE CONDITION AS RECEIVED (lab use only)
Frozen O — SIF Observations Yes O No O
Ice Packs O Ice Cubes O Custody seal intact Yes O No O
Cooling Initiated O

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
	6

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: Jeremie Roy	Date: Oct 26, 2023	Time: 11:00	Received by:	Date:	Time:	Received by: AB	Date: 10/30/23	Time: 9:40AM

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.

NOV 2015 FRONT

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C6889**	Page	: 1 of 2
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 08-Nov-2023 10:10
PO	: 15180	Date Analysis Commenced	: 21-Nov-2023
C-O-C number	: 17-028	Issue Date	: 21-Nov-2023 11:52
Sampler	: BWG		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Kaitlyn Gardner	Account Manager Assistant	Internal Subcontracting, Cincinnati, Ohio

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*
ppbv	parts per billion (volume/volume)

<: 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: **Sorbent Tube** (Matrix: **Air**)				*Client sample ID*	**RAD1**	----	----	----	----
				Client sampling date / time	31-Oct-2023 10:29	----	----	----	----
Analyte	*CAS Number*	*Method/Lab*	*LOR*	*Unit*	**VA23C6889-001**	---------	---------	---------	---------
					Result	----	----	----	----
Inorganics									
Sulfur dioxide (as SO2)	7446-09-5	Dioxides m/v/1A	1	ppbv	<0.30	----	----	----	----
Nitrogen dioxide (as NO2)	10102-44-0	Dioxides m/v/1A	1	ppbv	3.8	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23C6889**	Page	: 1 of 2
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 08-Nov-2023 10:10
PO	: 15180	Date Analysis Commenced	: 21-Nov-2023
C-O-C number	: 17-028	Issue Date	: 21-Nov-2023 11:52
Sampler	: BWG ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

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*
Kaitlyn Gardner	Account Manager Assistant	USA - Cincinnati Internal Subcontracting, Cincinnati, Ohio

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.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C6889**	Page	: 1 of 4
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 08-Nov-2023 10:10
PO	: 15180	Issue Date	: 21-Nov-2023 11:52
C-O-C number	: 17-028		
Sampler	: BWG		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

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 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: **Air**

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*	
Inorganics : Dioxides by Radiello in Air (ppbv)										
XAD Sorbent Tube										
RAD1	Dioxides m/v	31-Oct-2023	----	----	----		21-Nov-2023	----	21 days	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

- **No Quality Control data available for this section.**

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
Dioxides by Radiello in Air (ppbv)	Dioxides m/v Cincinnati - Environmental - 4388 Glendale-Milford Road Cincinnati Ohio United States 45242	Air	See attached report.	See attached report

20-Nov-2023

Amber Springer
ALS Environmental
8081 Lougheed HWY
Suite 100
Burnaby, BC V5A 1W9

Re: **VA23C6889** Work Order: **23110414**

Dear Amber,

ALS Environmental received 1 sample on 10-Nov-2023 09:40 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 8.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Hannah Ponder

Electronically approved by: Hannah Ponder

Hannah Ponder

Report of Laboratory Analysis

ALS Environmental

Date: 20-Nov-23

Client: ALS Environmental
Project: VA23C6889
Work Order: **23110414**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
23110414-01	VA23C6889-001	Air		10/31/2023 13:29	11/10/2023 09:40	☐

Client: ALS Environmental
Project: VA23C6889
Work Order: 23110414

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

Compound identification is based upon retention time matching only. Any compound with a similar retention time will interfere.

Samples were prepared and analyzed by the analytical method and the laboratory's applicable standard operating procedure listed below:
- IH-001- "Determination of Analytes Using NIOSH and OSHA Methods Using Gas Chromatography."
- IH-002- "Determination of Suspended Particulates in the Atmosphere Using Various Media"
- IH-003- "Determination of Suspended Particulates Not Otherwise Regulated (Total and Respirable)."
- IH-004- "Determination of Analytes by NIOSH and OSHA Methods Using Liquid Chromatography."
- IH-005- "Benzene-Soluble Fraction and Total Particulate (Asphalt Fume)."
- IH-006- "Methods IO-3.1 and IO-3.4 Modified for Metals Preparation and Analysis for Suspended Particulates."
- IH-007- "Colorimetric Determination of Hydrogen Sulfide in Air."
- IH-196- "Carbon Black by OSHA 196."
- IH-6009- "Determination of Mercury in Industrial Hygiene Samples by Manual Cold Vapor Atomic Absorption Spectroscopy."
- ENV-6010B- "Determination of Trace Metals in Solution by Inductively Coupled Plasma-Atomic Emission Spectroscopy by EPA Method 6010B Non-VAP."
- IH-7300 modified- "Elements by ICP."

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

All sampling information was provided by the client.

ALS Environmental

Date: *20-Nov-23*

Client: ALS Environmental
Project: VA23C6889

Work Order: 23110414

Analytical Results

Lab ID: 23110414-01A
Client Sample ID: VA23C6889-001

Collection Date: 10/31/2023 1:29:00 PM
Matrix: AIR

Analyses

DIOXIDES BY RADIELLO		Method: **IC**	Time (Min): **7169**	Analyst: **JAP**
Date Analyzed: 11/14/2023 13:29		Reporting Limit		
	µg/sample	µg/sample	ppb	
Nitrogen Dioxide	**3.8**	**1.0**	**3.8**	
Sulfur Dioxide	ND	1.0	<0.30	

Note:

ALS Environmental

Date: 20-Nov-23

Client: ALS Environmental

Work Order: 23110414

Project: VA23C6889

QC BATCH REPORT

Batch ID: **95105** Instrument ID **IC2** Method: **IC**

MBLK Sample ID: **MBLK-95105-95105** Units: **µg/sample** Analysis Date: **11/14/2023 01:02 PM**

Client ID: Run ID: **IC2_231114A** SeqNo: **3230212** Prep Date: **11/14/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	ND	1.0								
Sulfur Dioxide	ND	1.0								

LCS Sample ID: **LCS-95105-95105** Units: **µg/sample** Analysis Date: **11/14/2023 01:09 PM**

Client ID: Run ID: **IC2_231114A** SeqNo: **3230213** Prep Date: **11/14/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	4.532	1.0	5	0	90.6	79-130	0			
Sulfur Dioxide	4.993	1.0	5	0	99.9	68.6-146	0			

LCSD Sample ID: **LCSD-95105-95105** Units: **µg/sample** Analysis Date: **11/14/2023 01:16 PM**

Client ID: Run ID: **IC2_231114A** SeqNo: **3230214** Prep Date: **11/14/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.038	1.0	5	0	101	79-130	4.532	10.6	20	
Sulfur Dioxide	5.316	1.0	5	0	106	68.6-146	4.993	6.27	20	

The following samples were analyzed in this batch: 23110414-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 20-Nov-23

Client: ALS Environmental
Project: VA23C6889
WorkOrder: **23110414**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **ALS-VANCOUVER** Date/Time Received: **10-Nov-23 09:40**

Work Order: **23110414** Received by: **AB1**

Checklist completed by Alec Bolender (eSignature) 10-Nov-23 (Date) Reviewed by: Hannah Ponder (eSignature) 10-Nov-23 (Date)

Matrices: air
Carrier name: DHL

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☐	No ☑	
Temperature(s)/Thermometer(s):	10.4	120258	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes: ice pack melted

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Chain of Custody

ALS Environmental - Vancouver
8081 Lougheed Highway
Burnaby BC Canada V5A 1W9

153819

Destination Lab:	**USA - Cincinnati**
Address:	4388 Glendale-Milford Road Cincinnati OH United States 45242
Client:	BW Gold Ltd.
Work Order Number:	**VA23C6889**
Original Receipt Date/Time	Instructions Received
08/11/2023 13:10	

23110414

Relinquished By

Date/Time

Received By

Date/Time 11/10/23 0945

Receipt Temp

Return as Indicated: Results: alsev.datasublet@alsglobal.com Invoice: alsev.datasublet@alsglobal.com Electronic Data: alsev.datasublet@alsglobal.com

Attention: Amber Springer

ALS Sample ID	Client ID	Matrix	Container Type	Test Codes	Method Description	Due Date	Sampling Date and Time	Remarks
VA23C6889-001	RAD1	Air	XAD Sorbent Tube	Dioxides m/v	Dioxides by Radiello in Air (ppbv)	30-11-2023	31/10/2023 13:29	

EXPOSURE INTERVAL = 7169 minutes

DHL ice packs
10.4°C / 120258
ice packs melted

Chain of Custody (COC) / Analytical Request Form
www.alsglobal.com Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 028
Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Mark Warbanski
Phone:	778-818-0327
	Company address below will appear on the final report.
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To YES NO
	Copy of Invoice with Report YES NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution

Select Report Format: X PDF X EXCEL X EDD (DIGITAL)
Quality Control (QC) Report with Report X YES NO
Compare Results to Criteria on Report - provide details below if box checked X
Select Distribution: EMAIL MAIL FAX
Email 1 or Fax Envirogeneral@artemisgoldinc.com
Email 2 Ktanaka@Artemisgoldinc.com
Email 3

Invoice Distribution

Select Invoice Distribution: EMAIL MAIL FAX
Email 1 or Fax Accounts@artemisgoldinc.com
Email 2 mwarkbanski@artemisgoldinc.com

Project Information

ALS Account # / Quote #:	
Job #:	
PO / AFE:	15180
LSD:	
ALS Lab Work Order # (lab use only):	6889

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	
ALS Contact: Amber Springer	Sampler: BWG

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] | 3 day [P3-25%] | 2 day [P2-50%]

EMERGENCY: 1 Business day [E - 100%] | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)]

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
For tests that can not be performed according to the service level selected, you will be contacted.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Start Date	Start Time	End Date (dd-mmm-yy)	End Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Radiello NO2 and SO2	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	RAD1	26-Oct	11:00	31-Oct-23	10:29	Sorbent Tube	1	R		

Environmental Division
Vancouver
Work Order Reference
VA23C6889

Telephone : +1 604 253 4188

Drinking Water (DW) Samples1 (client use)

Are samples taken from a Regulated DW System? YES (NO)
Are samples for human consumption/ use? YES (NO)

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Please upload to EMS. EMS ID E331131

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen O SIF Observations Yes O No O
Ice Packs X Ice Cubes O Custody seal intact (Yes) ✓ No O
Cooling Initiated O

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
	4

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: Jeremie Roy	Date: November 6, 2023	Time: 17:00	Received by:	Date:	Time:	Received by: JC	Date: 8 NOV 23	Time: 10:10am

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.

NOV 2018 FRONT

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C8200**	Page	: 1 of 2
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 23-Nov-2023 10:10
PO	: 15180	Date Analysis Commenced	: 30-Nov-2023
C-O-C number	: 17-032	Issue Date	: 30-Nov-2023 12:00
Sampler	: BWG		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Paolo Obillo	Account Manager Assistant	Internal Subcontracting, Cincinnati, Ohio

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*
ppbv	parts per billion (volume/volume)

<: 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: **Sorbent Tube**
(Matrix: **Air**)

Analyte	*CAS Number*	*Method/Lab*	*LOR*	*Unit*	*Client sample ID*	**RAD1**	**----**	**----**	**----**	**----**
					Client sampling date / time	21-Nov-2023 08:55	----	----	----	----
						VA23C8200-001	---------	---------	---------	---------
						Result	----	----	----	----
Inorganics										
Sulfur dioxide (as SO2)	7446-09-5	Dioxides m/v/1A	1	ppbv		<0.30	----	----	----	----
Nitrogen dioxide (as NO2)	10102-44-0	Dioxides m/v/1A	1	ppbv		<1.0	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23C8200**	Page	: 1 of 2
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 23-Nov-2023 10:10
PO	: 15180	Date Analysis Commenced	: 30-Nov-2023
C-O-C number	: 17-032	Issue Date	: 30-Nov-2023 12:01
Sampler	: BWG ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

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*
Paolo Obillo	Account Manager Assistant	USA - Cincinnati Internal Subcontracting, Cincinnati, Ohio

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.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C8200**	Page	: 1 of 4
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 23-Nov-2023 10:10
PO	: 15180	Issue Date	: 30-Nov-2023 12:01
C-O-C number	: 17-032		
Sampler	: BWG		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

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 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: **Air**

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*	
Inorganics : Dioxides by Radiello in Air (ppbv)										
XAD Sorbent Tube										
RAD1	Dioxides m/v	21-Nov-2023	----	----	----		30-Nov-2023	----	9 days	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

- **No Quality Control data available for this section.**

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
Dioxides by Radiello in Air (ppbv)	Dioxides m/v Cincinnati - Environmental - 4388 Glendale-Milford Road Cincinnati Ohio United States 45242	Air	See attached report.	See attached report

30-Nov-2023

Amber Springer
ALS Laboratory Group
8081 Lougheed Hwy., Suite 100
Burnaby, BC V5A 1W9

Re: **VA23C8200** Work Order: **23110961**

Dear Amber,

ALS Environmental received 1 sample on 27-Nov-2023 09:35 AM for the analyses presented in the following report.

This is a REVISED REPORT. The Case Narrative provides information discussing the reason for issuing a revised report. The total number of pages in this revision is 8.

If you have any questions regarding these test results, please feel free to contact me.

Sincerely,

Hannah Ponder

Electronically approved by: Hannah Ponder

Hannah Ponder

Report of Laboratory Analysis

ALS Environmental

Date: 30-Nov-23

Client: ALS Laboratory Group
Project: VA23C8200
Work Order: **23110961**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
23110961-01	VA23C8200-001	Air		11/21/2023 11:55	11/27/2023 09:35	☐

Client: ALS Laboratory Group
Project: VA23C8200
Work Order: 23110961

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

Compound identification is based upon retention time matching only. Any compound with a similar retention time will interfere.

Samples were prepared and analyzed by the analytical method and the laboratory's applicable standard operating procedure listed below:
- IH-001- "Determination of Analytes Using NIOSH and OSHA Methods Using Gas Chromatography."
- IH-002- "Determination of Suspended Particulates in the Atmosphere Using Various Media"
- IH-003- "Determination of Suspended Particulates Not Otherwise Regulated (Total and Respirable)."
- IH-004- "Determination of Analytes by NIOSH and OSHA Methods Using Liquid Chromatography."
- IH-005- "Benzene-Soluble Fraction and Total Particulate (Asphalt Fume)."
- IH-006- "Methods IO-3.1 and IO-3.4 Modified for Metals Preparation and Analysis for Suspended Particulates."
- IH-007- "Colorimetric Determination of Hydrogen Sulfide in Air."
- IH-196- "Carbon Black by OSHA 196."
- IH-6009- "Determination of Mercury in Industrial Hygiene Samples by Manual Cold Vapor Atomic Absorption Spectroscopy."
- ENV-6010B- "Determination of Trace Metals in Solution by Inductively Coupled Plasma-Atomic Emission Spectroscopy by EPA Method 6010B Non-VAP."
- IH-7300 modified- "Elements by ICP."

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

All sampling information was provided by the client.

ALS Environmental

Date: *30-Nov-23*

Client: ALS Laboratory Group
Project: VA23C8200

Work Order: 23110961

Analytical Results

Lab ID: 23110961-01A
Client Sample ID: VA23C8200-001

Collection Date: 11/21/2023 11:55:00 AM
Matrix: AIR

Analyses

DIOXIDES BY RADIELLO Method: **IC** Time (Min): **7052** Analyst: **JAP**

Date Analyzed: 11/29/2023 14:48

	µg/sample	Reporting Limit µg/sample	ppb
Nitrogen Dioxide	ND	1.0	<1.0
Sulfur Dioxide	ND	1.0	<0.30

Note:

ALS Environmental

Date: 30-Nov-23

Client: ALS Laboratory Group

Work Order: 23110961

Project: VA23C8200

QC BATCH REPORT

Batch ID: **95384** Instrument ID **IC2** Method: **IC**

MBLK Sample ID: **MBLK-95384-95384** Units: **µg/sample** Analysis Date: **11/29/2023 02:21 PM**

Client ID: Run ID: **IC2_231129A** SeqNo: **3241507** Prep Date: **11/29/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	ND	1.0								
Sulfur Dioxide	ND	1.0								

LCS Sample ID: **LCS-95384-95384** Units: **µg/sample** Analysis Date: **11/29/2023 02:28 PM**

Client ID: Run ID: **IC2_231129A** SeqNo: **3241508** Prep Date: **11/29/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	4.523	1.0	5	0	90.5	79-130	0			
Sulfur Dioxide	4.962	1.0	5	0	99.2	68.6-146	0			

LCSD Sample ID: **LCSD-95384-95384** Units: **µg/sample** Analysis Date: **11/29/2023 03:44 PM**

Client ID: Run ID: **IC2_231129A** SeqNo: **3241516** Prep Date: **11/29/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	4.509	1.0	5	0	90.2	79-130	4.523	0.311	20	
Sulfur Dioxide	5.012	1.0	5	0	100	68.6-146	4.962	1.01	20	

The following samples were analyzed in this batch: 23110961-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 30-Nov-23

Client: ALS Laboratory Group
Project: VA23C8200
WorkOrder: **23110961**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **ALS-BURNABY** Date/Time Received: **27-Nov-23 09:35**

Work Order: **23110961** Received by: **MB**

Checklist completed by Madison Bufler (eSignature) 27-Nov-23 (Date) Reviewed by: Hannah Ponder (eSignature) 29-Nov-23 (Date)

Matrices: Air
Carrier name: DHL

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	5.1	120258	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	11/27/2023 12:09		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Chain of Custody

ALS Environmental - Vancouver
8081 Lougheed Highway
Burnaby BC Canada V5A 1W9

2311096 1

156336

Destination Lab:	**USA - Cincinnati**
Address:	4388 Glendale-Milford Road Cincinnati OH United States 45242
Client:	BW Gold Ltd.
Work Order Number:	**VA23C8200**
Original Receipt Date/Time	Instructions Received
23/11/2023 13:10	

Relinquished By	
Date/Time	
Received By	
Date/Time	11-27-23 9:35
Receipt Temp	5.1 12.25

Return as Indicated: Results: alsev.datasublet@alsglobal.com Invoice: alsev.datasublet@alsglobal.com Electronic Data: alsev.datasublet@alsglobal.com 2 ice packs

Attention: Amber Springer

ALS Sample ID	Client ID	Matrix	Container Type	Test Codes	Method Description	Due Date	Sampling Date and Time	Remarks
VA23C8200-001	RAD1	Air	XAD Sorbent Tube	Dioxides m/v	Dioxides by Radiello in Air (ppbv)		21/11/2023 11:55	

1

DHL

Regular TAT

Environmental Division
Vancouver
Work Order Reference
VA23C8200

Telephone : +1 604 253 4188

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 032
Page 1 of 1

Report To	Contact and company name below will appear on the final report	Report Format / Distribution	Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may ap
Company:	Blackwater Gold Mine	Select Report Format: X PDF X EXCEL X EDD (DIGITAL)	Regular [R] Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:	Mark Warbanski	Quality Control (QC) Report with Report X YES NO	PRIORITY (Business days): 4 day [P4-20%]; 3 day [P3-25%]; 2 day [P2-50%]
Phone:	778-818-0327	Compare Results to Criteria on Report - provide details below if box checked X	EMERGENCY: 1 Business day [E - 100%]; Same Day, Weekend or Statutory holiday [
	Company address below will appear on the final report	Select Distribution: EMAIL MAIL FAX	opening fees may apply)]
Street:	101 - 139 1st Street East	Email 1 or Fax Envirogeneral@artemisgoldinc.com	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
City/Province:	Vanderhoof, BC	Email 2 Ktanaka@Artemisgoldinc.com	For tests that can not be performed according to the service level selected, you will be contacted.
Postal Code:	V0J 3A0	Email 3	
Invoice To	Same as Report To YES NO	Invoice Distribution	Analysis Request
	Copy of Invoice with Report YES NO	Select Invoice Distribution: EMAIL MAIL FAX	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below
Company:	Artemis Gold Inc	Email 1 or Fax Accounts@artemisgoldinc.com	
Contact:	Accounts Payable	Email 2 mwarkbanski@artemisgoldinc.com	
Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center: PO#	
Job #:		Major/Minor Code: Routing Code:	
PO / AFE:	15180	Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		ALS Contact: Amber Springer Sampler: BWG	

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Start Date	Start Time	End Date (dd-mmm-yy)	End Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Radiello NO2 and SO2	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	RAD1	16-Nov-23	11:23	11/21/2023	8:55	Sorbent Tube	1	R		

Drinking Water (DW) Samples1 (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)	SAMPLE CONDITION AS RECEIVED (lab use only)
Are samples taken from a Regulated DW System? YES NO	Please upload to EMS, EMS ID E331131	Frozen ☐ SIF Observations Yes ☐ No ☐
Are samples for human consumption/ use? YES NO		Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐
		Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
	6

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)			
Released by:	Date: November 21, 2023	Time:	Received by:	Date:	Time:	Received by: JC	Date: 23-11-23	Time: 1010am	

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.

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C8782**	Page	: 1 of 2
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 29-Nov-2023 13:50
PO	: 15180	Date Analysis Commenced	: 14-Dec-2023
C-O-C number	: 17-032	Issue Date	: 14-Dec-2023 11:12
Sampler	: BWG		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 2		
No. of samples analysed	: 2		

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*
Kaitlyn Gardner	Account Manager Assistant	Internal Subcontracting, Cincinnati, Ohio

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*
ppbv	parts per billion (volume/volume)

<: 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: **Air**
(Matrix: **Air**)

Analyte	*CAS Number*	*Method/Lab*	*LOR*	*Unit*	*Client sample ID*	**RAD1**	**RAD1**	**----**	**----**	**----**
					Client sampling date / time	16-Nov-2023 11:23	28-Nov-2023 08:09	----	----	----
						VA23C8782-001	**VA23C8782-002**	**--------**	**--------**	**--------**
						Result	Result	----	----	----
Inorganics										
Sulfur dioxide (as SO2)	7446-09-5	Dioxides m/v/1A	1	ppbv		<0.16	<0.21	----	----	----
Nitrogen dioxide (as NO2)	10102-44-0	Dioxides m/v/1A	1	ppbv		0.98	3.1	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23C8782**	Page	: 1 of 2
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 29-Nov-2023 13:50
PO	: 15180	Date Analysis Commenced	: 14-Dec-2023
C-O-C number	: 17-032	Issue Date	: 14-Dec-2023 11:12
Sampler	: BWG ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 2		
No. of samples analysed	: 2		

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:

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*
Kaitlyn Gardner	Account Manager Assistant	USA - Cincinnati Internal Subcontracting, Cincinnati, Ohio

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.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C8782**	Page	: 1 of 4
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 29-Nov-2023 13:50
PO	: 15180	Issue Date	: 14-Dec-2023 11:12
C-O-C number	: 17-032		
Sampler	: BWG		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 2		
No. of samples analysed	: 2		

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 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: **Air**

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*
Inorganics : Dioxides by Radiello in Air (ppbv)										
Original packaging RAD1	Dioxides m/v	28-Nov-2023	----	----	----		14-Dec-2023	----	16 days	
Inorganics : Dioxides by Radiello in Air (ppbv)										
Original packaging RAD1	Dioxides m/v	16-Nov-2023	----	----	----		14-Dec-2023	----	28 days	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

- **No Quality Control data available for this section.**

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
Dioxides by Radiello in Air (ppbv)	Dioxides m/v Cincinnati - Environmental - 4388 Glendale-Milford Road Cincinnati Ohio United States 45242	Air	See attached report.	See attached report

14-Dec-2023

Amber Springer
ALS Environmental
8081 Lougheed HWY
Suite 100
Burnaby, BC V5A 1W9

Re: **VA23C8782** Work Order: **23120123**

Dear Amber,

ALS Environmental received 2 samples on 04-Dec-2023 09:48 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 9.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Hannah Ponder

Electronically approved by: Hannah Ponder

Hannah Ponder

Report of Laboratory Analysis

ALS Environmental

Date: 14-Dec-23

Client: ALS Environmental
Project: VA23C8782
Work Order: **23120123**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
23120123-01	VA23C8782-001	Air		11/7/2023 13:31	12/4/2023 09:48	☐
23120123-02	VA23C8782-002	Air		11/21/2023 11:55	12/4/2023 09:48	☐

Client: ALS Environmental
Project: VA23C8782
Work Order: 23120123

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

Compound identification is based upon retention time matching only. Any compound with a similar retention time will interfere.

Samples were prepared and analyzed by the analytical method and the laboratory's applicable standard operating procedure listed below:
- IH-001- "Determination of Analytes Using NIOSH and OSHA Methods Using Gas Chromatography."
- IH-002- "Determination of Suspended Particulates in the Atmosphere Using Various Media"
- IH-003- "Determination of Suspended Particulates Not Otherwise Regulated (Total and Respirable)."
- IH-004- "Determination of Analytes by NIOSH and OSHA Methods Using Liquid Chromatography."
- IH-005- "Benzene-Soluble Fraction and Total Particulate (Asphalt Fume)."
- IH-006- "Methods IO-3.1 and IO-3.4 Modified for Metals Preparation and Analysis for Suspended Particulates."
- IH-007- "Colorimetric Determination of Hydrogen Sulfide in Air."
- IH-196- "Carbon Black by OSHA 196."
- IH-6009- "Determination of Mercury in Industrial Hygiene Samples by Manual Cold Vapor Atomic Absorption Spectroscopy."
- ENV-6010B- "Determination of Trace Metals in Solution by Inductively Coupled Plasma-Atomic Emission Spectroscopy by EPA Method 6010B Non-VAP."
- IH-7300 modified- "Elements by ICP."

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

All sampling information was provided by the client.

ALS Environmental

Date: *14-Dec-23*

Client: ALS Environmental
Project: VA23C8782

Work Order: 23120123

Analytical Results

Lab ID: 23120123-01A
Collection Date: 11/7/2023 1:31:00 PM
Client Sample ID: VA23C8782-001
Matrix: AIR

Analyses

DIOXIDES BY RADIELLO		Method: **IC**	Time (Min): **13012**	Analyst: **JAP**
Date Analyzed: 12/7/2023 11:58		Reporting Limit		
	µg/sample	µg/sample	ppb	
Nitrogen Dioxide	**1.8**	**1.0**	**0.98**	
Sulfur Dioxide	ND	1.0	<0.16	

Lab ID: 23120123-02A
Collection Date: 11/21/2023 11:55:00 AM
Client Sample ID: VA23C8782-002
Matrix: AIR

Analyses

DIOXIDES BY RADIELLO		Method: **IC**	Time (Min): **10034**	Analyst: **JAP**
Date Analyzed: 12/7/2023 12:05		Reporting Limit		
	µg/sample	µg/sample	ppb	
Nitrogen Dioxide	**4.4**	**1.0**	**3.1**	
Sulfur Dioxide	ND	1.0	<0.21	

Note:

ALS Environmental

Date: 14-Dec-23

Client: ALS Environmental
Work Order: 23120123
Project: VA23C8782

QC BATCH REPORT

Batch ID: **95539** Instrument ID **IC2** Method: **IC**

MBLK Sample ID: **MBLK-95539-95539** Units: **µg/sample** Analysis Date: **12/7/2023 11:30 AM**
Client ID: Run ID: **IC2_231207A** SeqNo: **3249570** Prep Date: **12/7/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	0.2352	1.0								J
Sulfur Dioxide	ND	1.0								

LCS Sample ID: **LCS-95539-95539** Units: **µg/sample** Analysis Date: **12/7/2023 11:37 AM**
Client ID: Run ID: **IC2_231207A** SeqNo: **3249571** Prep Date: **12/7/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	4.687	1.0	5	0	93.7	79-130	0			
Sulfur Dioxide	5.813	1.0	5	0	116	68.6-146	0			

LCSD Sample ID: **LCSD-95539-95539** Units: **µg/sample** Analysis Date: **12/7/2023 11:44 AM**
Client ID: Run ID: **IC2_231207A** SeqNo: **3249572** Prep Date: **12/7/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.116	1.0	5	0	102	79-130	4.687	8.74	20	
Sulfur Dioxide	5.908	1.0	5	0	118	68.6-146	5.813	1.62	20	

The following samples were analyzed in this batch: 23120123-01A 23120123-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 14-Dec-23

Client: ALS Environmental
Project: VA23C8782
WorkOrder: **23120123**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **ALS-VANCOUVER** Date/Time Received: **04-Dec-23 09:48**

Work Order: **23120123** Received by: **MB**

Checklist completed by Chantel.Allen (eSignature) 04-Dec-23 (Date) Reviewed by: Hannah Ponder (eSignature) 05-Dec-23 (Date)

Matrices: Air
Carrier name: DHL

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☐	No ☑	
Sample(s) received on ice?	Yes ☐	No ☑	
Temperature(s)/Thermometer(s):	17.3	120258	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	12/04/2023 17:37		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Chain of Custody

ALS Environmental - Vancouver
8081 Lougheed Highway
Burnaby BC Canada V5A 1W9

23120123

157383

Destination Lab:	**USA - Cincinnati**
Address:	4388 Glendale-Milford Road Cincinnati OH United States 45242
Client:	BW Gold Ltd.
Work Order Number:	**VA23C8782**
Original Receipt Date/Time	Instructions Received
29/11/2023 16:50	

Relinquished By	
Date/Time	
Received By	
Date/Time	12-4-23 9:48
Receipt Temp	17.3

Return as Indicated: Results: alsev.datasublet@alsglobal.com Invoice: alsev.datasublet@alsglobal.com Electronic Data: alsev.datasublet@alsglobal.com

Attention: Amber Springer

120258 Ice pack

ALS Sample ID	Client ID	Matrix	Container Type	Test Codes	Method Description	Due Date	Sampling Date and Time	Remarks
1 VA23C8782-001	RAD1	Air	Original packaging	Dioxides m/v	Dioxides by Radiello in Air (ppbv)	20-12-2023	07/11/2023 13:31	
2 VA23C8782-002	RAD1	Air	Original packaging	Dioxides m/v	Dioxides by Radiello in Air (ppbv)	20-12-2023	21/11/2023 11:55	

DHL

See attached COC for Interval Times!

2312023

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com — Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 032

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Mark Warbenski
Phone:	778-818-0327
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To YES NO
	Copy of Invoice with Report YES NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution	
Select Report Format:	X PDF X EXCEL X EDD (DIGITAL)
Quality Control (QC) Report with Report	X YES NO
Compare Results to Criteria on Report - provide details below if box checked X	
Select Distribution:	EMAIL MAIL FAX
Email 1 or Fax	Envirogeneral@artemisgoldinc.com
Email 2	Ktanaka@Artemisgoldinc.com
Email 3	

Invoice Distribution	
Select Invoice Distribution:	EMAIL MAIL FAX
Email 1 or Fax	Accounts@artemisgoldinc.com
Email 2	mwarkbanski@artemisgoldinc.com

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:		Major/Minor Code:	Routing Code:
PO / AFE:	15180	Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		ALS Contact: Amber Springer	Sampler: BWG

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] | 3 day [P3-25%] | 2 day [P2-50%]

EMERGENCY: 1 Business day [E - 100%] | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)]

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Start Date	Start Time	End Date (dd-mmm-yy)	End Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Radiello NO2 and SO2	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	RAD1	07-Nov-23	10:31	2023-11-16	11:23	Sorbent Tube	1	R		
	RAD1	21-Nov-23	8:55	28-Nov-23	08:09	Sorbent Tube	1	R		

Drinking Water (DW) Samples1 (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? YES NO Are samples for human consumption/ use? YES NO	Please upload to EMS, EMS ID E331131

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	O	SIF Observations	Yes	O	No	O
Ice Packs	O	Ice Cubes O	Custody seal intact	Yes	O	No O
Cooling Initiated		O				

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				2			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: Jeremy Roy	Date: November 21, 2023	Time: 8:29	Received by:	Date:	Time:	Received by: JC	Date: 29-11-23	Time: 1350

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2015 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

Chain of Custody (COC) / Analytical Request Form
www.alsglobal.com — Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 032
Page 1 of 1

Report To	Contact and company name below will appear on the final report	Report Format / Distribution	Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)
Company:	Blackwater Gold Mine	Select Report Format: X PDF X EXCEL X EDD (DIGITAL)	Regular [R] Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:	Mark Warbanski	Quality Control (QC) Report with Report X YES NO	PRIORITY (Business Days): 4 day [P4-20%]; 3 day [P3-25%]; 2 day [P2-50%]
Phone:	778-818-0327	Compare Results to Criteria on Report - provide details below if box checked X	EMERGENCY: 1 Business day [E - 100%]; Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)]
	Company address below will appear on the final report	Select Distribution: EMAIL MAIL FAX	
Street:	101 - 139 1st Street East	Email 1 or Fax Envirogeneral@artemisgoldinc.com	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
City/Province:	Vanderhoof, BC	Email 2 Klanaka@Artemisgoldinc.com	For tests that can not be performed according to the service level selected, you will be contacted.
Postal Code:	V0J 3A0	Email 3	
Invoice To	Same as Report To YES NO	**Invoice Distribution**	**Analysis Request**
	Copy of Invoice with Report YES NO	Select Invoice Distribution: EMAIL MAIL FAX	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below
Company:	Artemis Gold Inc	Email 1 or Fax Accounts@artemisgoldinc.com	
Contact:	Accounts Payable	Email 2 mwarkbanski@artemisgoldinc.com	

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:		Major/Minor Code:	Routing Code:
PO / AFE:	15180	Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		ALS Contact: Amber Springer	Sampler: BWG

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Start Date	Start Time	End Date (dd-mmm-yy)	End Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Radiello NO2 and SO2	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	RAD1	07-Nov-23	10:31	2023-11-16	11:23	Sorbent Tube	1	R		
	RAD1	21-Nov-23	8:55	28-Nov-23	08:09	Sorbent Tube	1	R		

Environmental Division
Vancouver
Work Order Reference
VA23C8782

Telephone : +1 604 253 4188

Drinking Water (DW) Samples1 (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? YES NO Are samples for human consumption/ use? YES NO	Please upload to EMS, EMS ID E331131

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	0	SIF Observations	Yes 0	No	0
Ice Packs	0 Ice Cubes 0	Custody seal intact	Yes 0	No	0
Cooling Initiated	0				

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
					2		

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)			
Released by: Jeremie Roy	Date: November 21, 2023	Time: 8:29	Received by:	Date:	Time:	Received by: JC	Date: 29-11-23	Time: 1350

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.

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C7465**	Page	: 1 of 2
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Kelsey Tanaka	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 15-Nov-2023 10:30
PO	: 15180	Date Analysis Commenced	: 27-Nov-2023
C-O-C number	: 17-030	Issue Date	: 27-Nov-2023 15:51
Sampler	: BWG		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Paolo Obillo	Account Manager Assistant	Internal Subcontracting, Cincinnati, Ohio

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*
ppbv	parts per billion (volume/volume)

<: 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: **Filter** (Matrix: **Air**)				*Client sample ID*	**RAD1**	----	----	----	----
				Client sampling date / time	31-Oct-2023 10:29	----	----	----	----
Analyte	*CAS Number*	*Method/Lab*	*LOR*	*Unit*	**VA23C7465-001**	---------	---------	---------	---------
					Result	----	----	----	----
Inorganics									
Sulfur dioxide (as SO2)	7446-09-5	Dioxides m/v/1A	1	ppbv	<0.21	----	----	----	----
Nitrogen dioxide (as NO2)	10102-44-0	Dioxides m/v/1A	1	ppbv	2.5	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23C7465**	Page	: 1 of 2
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Kelsey Tanaka	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 15-Nov-2023 10:30
PO	: 15180	Date Analysis Commenced	: 27-Nov-2023
C-O-C number	: 17-030	Issue Date	: 27-Nov-2023 15:51
Sampler	: BWG ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

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*
Paolo Obillo	Account Manager Assistant	USA - Cincinnati Internal Subcontracting, Cincinnati, Ohio

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.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C7465**	Page	: 1 of 4
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Kelsey Tanaka	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 15-Nov-2023 10:30
PO	: 15180	Issue Date	: 27-Nov-2023 15:51
C-O-C number	: 17-030		
Sampler	: BWG		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

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 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: **Air**

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*	
Inorganics : Dioxides by Radiello in Air (ppbv)										
Teflon Filter (47mm)										
RAD1	Dioxides m/v	31-Oct-2023	----	----	----		27-Nov-2023	----	27 days	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

- **No Quality Control data available for this section.**

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
Dioxides by Radiello in Air (ppbv)	Dioxides m/v Cincinnati - Environmental - 4388 Glendale-Milford Road Cincinnati Ohio United States 45242	Air	See attached report.	See attached report

27-Nov-2023

Amber Springer
ALS Environmental
8081 Lougheed HWY
Suite 100
Burnaby, BC V5A 1W9

Re: **VA23C7465** Work Order: **23110668**

Dear Amber,

ALS Environmental received 1 sample on 16-Nov-2023 11:55 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 8.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Hannah Ponder

Electronically approved by: Hannah Ponder

Hannah Ponder

Report of Laboratory Analysis

ALS Environmental

Date: 27-Nov-23

Client: ALS Environmental
Project: VA23C7465
Work Order: **23110668**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
23110668-01	RAD1	Air		10/31/2023 13:29	11/16/2023 11:55	☐

Client: ALS Environmental
Project: VA23C7465
Work Order: 23110668

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

Compound identification is based upon retention time matching only. Any compound with a similar retention time will interfere.

Samples were prepared and analyzed by the analytical method and the laboratory's applicable standard operating procedure listed below:
- IH-001- "Determination of Analytes Using NIOSH and OSHA Methods Using Gas Chromatography."
- IH-002- "Determination of Suspended Particulates in the Atmosphere Using Various Media"
- IH-003- "Determination of Suspended Particulates Not Otherwise Regulated (Total and Respirable)."
- IH-004- "Determination of Analytes by NIOSH and OSHA Methods Using Liquid Chromatography."
- IH-005- "Benzene-Soluble Fraction and Total Particulate (Asphalt Fume)."
- IH-006- "Methods IO-3.1 and IO-3.4 Modified for Metals Preparation and Analysis for Suspended Particulates."
- IH-007- "Colorimetric Determination of Hydrogen Sulfide in Air."
- IH-196- "Carbon Black by OSHA 196."
- IH-6009- "Determination of Mercury in Industrial Hygiene Samples by Manual Cold Vapor Atomic Absorption Spectroscopy."
- ENV-6010B- "Determination of Trace Metals in Solution by Inductively Coupled Plasma-Atomic Emission Spectroscopy by EPA Method 6010B Non-VAP."
- IH-7300 modified- "Elements by ICP."

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

All sampling information was provided by the client.

ALS Environmental

Date: *27-Nov-23*

Client: ALS Environmental
Project: VA23C7465

Work Order: 23110668

Analytical Results

Lab ID: 23110668-01A
Client Sample ID: RAD1

Collection Date: 10/31/2023 1:29:00 PM
Matrix: AIR

Analyses

DIOXIDES BY RADIELLO		Method: **IC**	Time (Min): **10082**	Analyst: **JAP**
Date Analyzed: 11/21/2023 13:57		Reporting Limit		
	µg/sample	µg/sample	ppb	
Nitrogen Dioxide	**3.6**	**1.0**	**2.5**	
Sulfur Dioxide	ND	1.0	<0.21	

Note:

ALS Environmental

Date: 27-Nov-23

Client: ALS Environmental

Work Order: 23110668

Project: VA23C7465

QC BATCH REPORT

Batch ID: **95260** Instrument ID **IC2** Method: **IC**

MBLK Sample ID: **MBLK-95260-95260** Units: **µg/sample** Analysis Date: **11/21/2023 01:29 PM**

Client ID: Run ID: **IC2_231121A** SeqNo: **3236496** Prep Date: **11/21/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	0.3335	1.0								J
Sulfur Dioxide	ND	1.0								

LCS Sample ID: **LCS-95260-95260** Units: **µg/sample** Analysis Date: **11/21/2023 01:36 PM**

Client ID: Run ID: **IC2_231121A** SeqNo: **3236497** Prep Date: **11/21/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.441	1.0	5	0	109	79-130	0			
Sulfur Dioxide	6.284	1.0	5	0	126	68.6-146	0			

LCSD Sample ID: **LCSD-95260-95260** Units: **µg/sample** Analysis Date: **11/21/2023 01:43 PM**

Client ID: Run ID: **IC2_231121A** SeqNo: **3236498** Prep Date: **11/21/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.486	1.0	5	0	110	79-130	5.441	0.817	20	
Sulfur Dioxide	6.382	1.0	5	0	128	68.6-146	6.284	1.56	20	

The following samples were analyzed in this batch: 23110668-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 27-Nov-23

Client: ALS Environmental
Project: VA23C7465
WorkOrder: **23110668**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **ALS-VANCOUVER** Date/Time Received: **16-Nov-23 11:55**

Work Order: **23110668** Received by: **AB1**

Checklist completed by Chantel.Allen (eSignature) 16-Nov-23 (Date) Reviewed by: Hannah Ponder (eSignature) 21-Nov-23 (Date)

Matrices: Air
Carrier name: DHL

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	-0.6	120258	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	11/16/2023 13:01		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Chain of Custody

ALS Environmental - Vancouver
8081 Lougheed Highway
Burnaby BC Canada V5A 1W9

PREVIEW COC

Destination Lab:	**USA - Cincinnati**
Address:	4388 Glendale-Milford Road Cincinnati OH United States 45242
Client:	BW Gold Ltd.
Work Order Number:	**VA23C7465**
Original Receipt Date/Time	Instructions Received
15/11/2023 13:30	

23110668

Relinquished By

Date/Time

Received By

Date/Time
11/16/23 1155
Receipt Temp -0.6°C 11/20/23

Return as Indicated: Results: alsev.datasublet@alsglobal.com Invoice: alsev.datasublet@alsglobal.com Electronic Data: alsev.datasublet@alsglobal.com

Attention: Amber Springer

ALS Sample ID	Client ID	Matrix	Container Type	Test Codes	Method Description	Due Date	Sampling Date and Time	Remarks
VA23C7465-001	RAD1	Air	Teflon Filter (47mm)	Dioxides m/v	Dioxides by Radiello in Air (ppbv)	06-12-2023	31/10/2023 13:29	

DHC

Chain of Custody (COC) / Analytical Request Form
www.alsglobal.com — Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 030
Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Mark Warbanski
Phone:	778-818-0327
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To YES NO
	Copy of Invoice with Report YES NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Project Information

ALS Account # / Quote #:	
Job #:	
PO / AFE:	15180
LSD:	
ALS Lab Work Order # (lab use only):	C7465

Report Format / Distribution

Select Report Format: X PDF X EXCEL X EDD (DIGITAL)
Quality Control (QC) Report with Report X YES NO
Compare Results to Criteria on Report - provide details below if box checked X
Select Distribution: EMAIL MAIL FAX

Email 1 or Fax	Envirogeneral@artemisgoldinc.com
Email 2	Ktanaka@Artemisgoldinc.com
Email 3	

Invoice Distribution

Select Invoice Distribution: EMAIL MAIL FAX

Email 1 or Fax	Accounts@artemisgoldinc.com
Email 2	mwarkbanski@artemisgoldinc.com

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Contact: Amber Springer **Sampler:** BWG

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] | 3 day [P3-25%] | 2 day [P2-50%]
EMERGENCY: 1 Business day [E - 100%] | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)]

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
For tests that can not be performed according to the service level selected, you will be contacted.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Start Date	Start Time	End Date (dd-mmm-yy)	End Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Radiello NO2 and SO2	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	RAD1	31-10-2023	10:29	7/11/2023	10:31	Sorbent Tube	1	R		

Environmental Division
Vancouver
Work Order Reference
VA23C7465

Telephone : +1 604 253 4188

Drinking Water (DW) Samples1 (client use)

Are samples taken from a Regulated DW System? YES NO
Are samples for human consumption/ use? YES NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Please upload to EMS, EMS ID E331131

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐
Ice Packs ☑ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐
Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
	8

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date: November 13, 2023	Time:	Received by:	Date:	Time:	Received by: JC	Date: 15-11-23	Time: 1030

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.

NOV 2015 FRONT

CERTIFICATE OF ANALYSIS

Work Order	: **VA23C9505**	Page	: 1 of 2
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 07-Dec-2023 10:30
PO	: 15180	Date Analysis Commenced	: 29-Dec-2023
C-O-C number	: ----	Issue Date	: 29-Dec-2023 12:04
Sampler	: BWG		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Paolo Obillo	Account Manager Assistant	Internal Subcontracting, Cincinnati, Ohio

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*
ppbv	parts per billion (volume/volume)

<: 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: **Air** (Matrix: **Air**)					*Client sample ID*	**RAD1**	----	----	----	----
					Client sampling date / time	05-Dec-2023 15:09	----	----	----	----
Analyte	*CAS Number*	*Method/Lab*	*LOR*	*Unit*		**VA23C9505-001**	---------	---------	---------	---------
						Result	----	----	----	----
Inorganics										
Sulfur dioxide (as SO2)	7446-09-5	Dioxides m/v/1A	1	ppbv		<0.20	----	----	----	----
Nitrogen dioxide (as NO2)	10102-44-0	Dioxides m/v/1A	1	ppbv		2.5	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA23C9505**	Page	: 1 of 2
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 07-Dec-2023 10:30
PO	: 15180	Date Analysis Commenced	: 29-Dec-2023
C-O-C number	: ----	Issue Date	: 29-Dec-2023 12:04
Sampler	: BWG ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

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*
Paolo Obillo	Account Manager Assistant	USA - Cincinnati Internal Subcontracting, Cincinnati, Ohio

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.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA23C9505**	Page	: 1 of 4
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 07-Dec-2023 10:30
PO	: 15180	Issue Date	: 29-Dec-2023 12:04
C-O-C number	: ----		
Sampler	: BWG		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

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 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: **Air**

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*	
Inorganics : Dioxides by Radiello in Air (ppbv)										
Original packaging										
RAD1	Dioxides m/v	05-Dec-2023	----	----	----		29-Dec-2023	----	24 days	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

- **No Quality Control data available for this section.**

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
Dioxides by Radiello in Air (ppbv)	Dioxides m/v Cincinnati - Environmental - 4388 Glendale-Milford Road Cincinnati Ohio United States 45242	Air	See attached report.	See attached report

18-Dec-2023

Amber Springer
ALS Environmental
8081 Lougheed HWY
Suite 100
Burnaby, BC V5A 1W9

Re: **VA23C9505** Work Order: **23120422**

Dear Amber,

ALS Environmental received 1 sample on 11-Dec-2023 01:54 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 8.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Hannah Ponder

Electronically approved by: Hannah Ponder

Hannah Ponder

Report of Laboratory Analysis

ALS Environmental

Date: 18-Dec-23

Client: ALS Environmental
Project: VA23C9505
Work Order: **23120422**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
23120422-01	RAD1	Air		12/5/2023 18:09	12/11/2023 13:54	☐

Client: ALS Environmental
Project: VA23C9505
Work Order: 23120422

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

Compound identification is based upon retention time matching only. Any compound with a similar retention time will interfere.

Samples were prepared and analyzed by the analytical method and the laboratory's applicable standard operating procedure listed below:
- IH-001- "Determination of Analytes Using NIOSH and OSHA Methods Using Gas Chromatography."
- IH-002- "Determination of Suspended Particulates in the Atmosphere Using Various Media"
- IH-003- "Determination of Suspended Particulates Not Otherwise Regulated (Total and Respirable)."
- IH-004- "Determination of Analytes by NIOSH and OSHA Methods Using Liquid Chromatography."
- IH-005- "Benzene-Soluble Fraction and Total Particulate (Asphalt Fume)."
- IH-006- "Methods IO-3.1 and IO-3.4 Modified for Metals Preparation and Analysis for Suspended Particulates."
- IH-007- "Colorimetric Determination of Hydrogen Sulfide in Air."
- IH-196- "Carbon Black by OSHA 196."
- IH-6009- "Determination of Mercury in Industrial Hygiene Samples by Manual Cold Vapor Atomic Absorption Spectroscopy."
- ENV-6010B- "Determination of Trace Metals in Solution by Inductively Coupled Plasma-Atomic Emission Spectroscopy by EPA Method 6010B Non-VAP."
- IH-7300 modified- "Elements by ICP."

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

All sampling information was provided by the client.

ALS Environmental

Date: *18-Dec-23*

Client: ALS Environmental
Project: VA23C9505

Work Order: 23120422

Analytical Results

Lab ID: 23120422-01A
Client Sample ID: RAD1

Collection Date: 12/5/2023 6:09:00 PM
Matrix: AIR

Analyses

DIOXIDES BY RADIELLO		Method: **IC**	Time (Min): **10500**	Analyst: **JAP**
Date Analyzed: 12/12/2023 17:46		Reporting Limit		
	µg/sample	µg/sample	ppb	
Nitrogen Dioxide	**3.7**	**1.0**	**2.5**	
Sulfur Dioxide	ND	1.0	<0.20	

Note:

ALS Environmental

Date: 18-Dec-23

Client: ALS Environmental

Work Order: 23120422

Project: VA23C9505

QC BATCH REPORT

Batch ID: **95641** Instrument ID **IC2** Method: **IC**

MBLK Sample ID: **MBLK-95641-95641** Units: **µg/sample** Analysis Date: **12/12/2023 05:19 PM**

Client ID: Run ID: **IC2_231211B** SeqNo: **3252011** Prep Date: **12/12/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	0.25	1.0								J
Sulfur Dioxide	ND	1.0								

LCS Sample ID: **LCS-95641-95641** Units: **µg/sample** Analysis Date: **12/12/2023 05:26 PM**

Client ID: Run ID: **IC2_231211B** SeqNo: **3252012** Prep Date: **12/12/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.336	1.0	5	0	107	79-130	0			
Sulfur Dioxide	7.697	1.0	5	0	154	68.6-146	0			S

LCSD Sample ID: **LCSD-95641-95641** Units: **µg/sample** Analysis Date: **12/12/2023 05:33 PM**

Client ID: Run ID: **IC2_231211B** SeqNo: **3252013** Prep Date: **12/12/2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	4.997	1.0	5	0	99.9	79-130	5.336	6.55	20	
Sulfur Dioxide	7.043	1.0	5	0	141	68.6-146	7.697	8.88	20	

The following samples were analyzed in this batch: 23120422-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 18-Dec-23

Client: ALS Environmental
Project: VA23C9505
WorkOrder: **23120422**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **ALS-VANCOUVER** Date/Time Received: **11-Dec-23 13:54**

Work Order: **23120422** Received by: **MB**

Checklist completed by Chantel.Allen (eSignature) 11-Dec-23 (Date) Reviewed by: Hannah Ponder (eSignature) 13-Dec-23 (Date)

Matrices: Air
Carrier name: DHL

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☐	No ☑	
Sample(s) received on ice?	Yes ☐	No ☑	
Temperature(s)/Thermometer(s):	8.9	120489	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	12/11/2023 19:40		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes: Received on ice pack

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Chain of Custody

ALS Environmental - Vancouver
8081 Lougheed Highway
Burnaby BC Canada V5A 1W9

23120422

158971

Destination Lab:	**USA - Cincinnati**
Address:	4388 Glendale-Milford Road Cincinnati OH United States 45242
Client:	BW Gold Ltd.
Work Order Number:	**VA23C9505**
Original Receipt Date/Time	Instructions Received
07/12/2023 13:30	

Relinquished By

Date/Time

Received By

Date/Time 12-11-23 13:54

Receipt Temp 8.9 120489

Return as Indicated: Results: alsev.datasublet@alsglobal.com Invoice: alsev.datasublet@alsglobal.com Electronic Data: alsev.datasublet@alsglobal.com Ice pack

Attention: Amber Springer

ALS Sample ID	Client ID	Matrix	Container Type	Test Codes	Method Description	Due Date	Sampling Date and Time	Remarks
VA23C9505-001	RAD1	Air	Original packaging	Dioxides m/v	Dioxides by Radiello in Air (ppbv)	~~02-01-2024~~	05/12/2023 18:09	

1

SM DHL routine TAT

Sample collection interval =

10,500 minutes

Chain of Custody (COC) / Analytical Request Form
www.alsglobal.com — Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 36
Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Blackwater Gold Mine
Contact:	Mark Warbanski
Phone:	778-818-0327
	Company address below will appear on the final report
Street:	101 - 139 1st Street East
City/Province:	Vanderhoof, BC
Postal Code:	V0J 3A0
Invoice To	Same as Report To YES NO
	Copy of Invoice with Report YES NO
Company:	Artemis Gold Inc
Contact:	Accounts Payable

Report Format / Distribution
Select Report Format: X PDF X EXCEL X EDD (DIGITAL)
Quality Control (QC) Report with Report X YES NO
Compare Results to Criteria on Report - provide details below if box checked X
Select Distribution: EMAIL MAIL FAX
Email 1 or Fax: Envirogeneral@artemisgoldinc.com
Email 2: Ktanaka@Artemisgoldinc.com
Email 3:

Invoice Distribution
Select Invoice Distribution: EMAIL MAIL FAX
Email 1 or Fax: Accounts@artemisgoldinc.com
Email 2: mwarkbanski@artemisgoldinc.com

Project Information
ALS Account # / Quote #:
Job #:
PO / AFE: 15180
LSD:
ALS Lab Work Order # (lab use only):

Oil and Gas Required Fields (client use)
AFE/Cost Center: PO#
Major/Minor Code: Routing Code:
Requisitioner:
Location:
ALS Contact: Amber Springer Sampler: BWG

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)
Regular [R] Standard TAT if received by 3 pm - business days - no surcharges apply
PRIORITY (Business Days): 4 day [P4-20%] | 3 day [P3-25%] | 2 day [P2-50%]
EMERGENCY: 1 Business day [E - 100%] | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)]
Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
For tests that can not be performed according to the service level selected, you will be contacted.

Analysis Request
Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Start Date	Start Time	End Date (dd-mmm-yy)	End Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Radiello NO2 and SO2	SUSPECTED HAZARD (see Special Instructions)
	RAD1	28-Nov-23	8:09	12/5/2023	15:09	Sorbent Tube	1	R	

Environmental Division
Vancouver
Work Order Reference
VA23C9505

Telephone : +1 604 253 4188

Drinking Water (DW) Samples1 (client use)
Are samples taken from a Regulated DW System? YES NO
Are samples for human consumption/ use? YES NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Please upload to EMS, EMS ID E331131

SAMPLE CONDITION AS RECEIVED (lab use only)
Frozen 0 SIF Observations Yes 0 No 0
Ice Packs 0 Ice Cubes 0 Custody seal intact Yes 0 No 0
Cooling Initiated 0

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
	2

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)			
Released by: Jeremie Roy	Date: December 5th, 2023	Time:	Received by:	Date:	Time:	Received by: JC	Date: 7/12/23	Time: 1030am	

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.

CERTIFICATE OF ANALYSIS

Work Order	: **VA24A0175**	Page	: 1 of 2
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 03-Jan-2024 09:40
PO	: 15180	Date Analysis Commenced	: 24-Jan-2024
C-O-C number	: 17-045	Issue Date	: 24-Jan-2024 14:42
Sampler	: BWG		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

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This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

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Signatories

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Signatories	*Position*	*Laboratory Department*
Kaitlyn Gardner	Account Manager Assistant	Internal Subcontracting, Cincinnati, Ohio

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Unit	*Description*
ppbv	parts per billion (volume/volume)

<: 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: **Sorbent Tube** (Matrix: **Air**)

				Client sample ID	**RAD1**	**----**	**----**	**----**	**----**
				Client sampling date / time	26-Dec-2023 13:34	----	----	----	----
Analyte	*CAS Number*	*Method/Lab*	*LOR*	*Unit*	**VA24A0175-001**	**--------**	**--------**	**--------**	**--------**
					Result	----	----	----	----
Inorganics									
Sulfur dioxide (as SO2)	7446-09-5	Dioxides m/v/1A	1	ppbv	<0.21	----	----	----	----
Nitrogen dioxide (as NO2)	10102-44-0	Dioxides m/v/1A	1	ppbv	1.4	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA24A0175**	Page	: 1 of 2
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 03-Jan-2024 09:40
PO	: 15180	Date Analysis Commenced	: 24-Jan-2024
C-O-C number	: 17-045	Issue Date	: 24-Jan-2024 14:42
Sampler	: BWG ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

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Signatories

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Signatories	*Position*	*Laboratory Department*
Kaitlyn Gardner	Account Manager Assistant	USA - Cincinnati Internal Subcontracting, Cincinnati, Ohio

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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.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA24A0175**	Page	: 1 of 4
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 03-Jan-2024 09:40
PO	: 15180	Issue Date	: 24-Jan-2024 14:42
C-O-C number	: 17-045		
Sampler	: BWG		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

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 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: **Air**

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*	
Inorganics : Dioxides by Radiello in Air (ppbv)										
Silica Gel Tube										
RAD1	Dioxides m/v	26-Dec-2023	----	----	----		24-Jan-2024	----	29 days	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

- **No Quality Control data available for this section.**

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
Dioxides by Radiello in Air (ppbv)	Dioxides m/v Cincinnati - Environmental - 4388 Glendale-Milford Road Cincinnati Ohio United States 45242	Air	See attached report.	See attached report

11-Jan-2024

Amber Springer
ALS Laboratory Group
8081 Lougheed Hwy., Suite 100
Burnaby, BC V5A 1W9

Re: **VA24A0175** Work Order: **24010156**

Dear Amber,

ALS Environmental received 1 sample on 08-Jan-2024 09:13 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 8.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Hannah Ponder

Electronically approved by: Hannah Ponder

Hannah Ponder

Report of Laboratory Analysis

ALS Environmental

Date: 11-Jan-24

Client: ALS Laboratory Group
Project: VA24A0175
Work Order: **24010156**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
24010156-01	VA24A0175-001	Air		12/26/2023 16:34	1/8/2024 09:13	☐

Client:	ALS Laboratory Group
Project:	VA24A0175
Work Order:	24010156

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

Compound identification is based upon retention time matching only. Any compound with a similar retention time will interfere.

Samples were prepared and analyzed by the analytical method and the laboratory's applicable standard operating procedure listed below:
- IH-001- "Determination of Analytes Using NIOSH and OSHA Methods Using Gas Chromatography."
- IH-002- "Determination of Suspended Particulates in the Atmosphere Using Various Media"
- IH-003- "Determination of Suspended Particulates Not Otherwise Regulated (Total and Respirable)."
- IH-004- "Determination of Analytes by NIOSH and OSHA Methods Using Liquid Chromatography."
- IH-005- "Benzene-Soluble Fraction and Total Particulate (Asphalt Fume)."
- IH-006- "Methods IO-3.1 and IO-3.4 Modified for Metals Preparation and Analysis for Suspended Particulates."
- IH-007- "Colorimetric Determination of Hydrogen Sulfide in Air."
- IH-196- "Carbon Black by OSHA 196."
- IH-6009- "Determination of Mercury in Industrial Hygiene Samples by Manual Cold Vapor Atomic Absorption Spectroscopy."
- ENV-6010B- "Determination of Trace Metals in Solution by Inductively Coupled Plasma-Atomic Emission Spectroscopy by EPA Method 6010B Non-VAP."
- IH-7300 modified- "Elements by ICP."

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

All sampling information was provided by the client.

ALS Environmental

Date: *11-Jan-24*

Client: ALS Laboratory Group
Project: VA24A0175

Work Order: 24010156

Analytical Results

Lab ID: 24010156-01A
Client Sample ID: VA24A0175-001

Collection Date: 12/26/2023 4:34:00 PM
Matrix: AIR

Analyses

DIOXIDES BY RADIELLO		Method: **IC**	Time (Min): **10360**	Analyst: **JAP**
Date Analyzed: 1/9/2024 12:12	µg/sample	Reporting Limit µg/sample	ppb	
Nitrogen Dioxide	**2.1**	**1.0**	**1.4**	
Sulfur Dioxide	ND	1.0	<0.21	

Note:

ALS Environmental

Date: 11-Jan-24

Client: ALS Laboratory Group

Work Order: 24010156

Project: VA24A0175

QC BATCH REPORT

Batch ID: **96123** Instrument ID **IC2** Method: **IC**

MBLK Sample ID: **MBLK-96123-96123** Units: **µg/sample** Analysis Date: **1/9/2024 11:45 AM**

Client ID: Run ID: **IC2_240108A** SeqNo: **3272916** Prep Date: **1/9/2024** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	ND	1.0								
Sulfur Dioxide	ND	1.0								

LCS Sample ID: **LCS-96123-96123** Units: **µg/sample** Analysis Date: **1/9/2024 11:51 AM**

Client ID: Run ID: **IC2_240108A** SeqNo: **3272917** Prep Date: **1/9/2024** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.099	1.0	5	0	102	79-130	0			
Sulfur Dioxide	5.982	1.0	5	0	120	68.6-146	0			

LCSD Sample ID: **LCSD-96123-96123** Units: **µg/sample** Analysis Date: **1/9/2024 11:58 AM**

Client ID: Run ID: **IC2_240108A** SeqNo: **3272918** Prep Date: **1/9/2024** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.179	1.0	5	0	104	79-130	5.099	1.57	20	
Sulfur Dioxide	6	1.0	5	0	120	68.6-146	5.982	0.298	20	

The following samples were analyzed in this batch: 24010156-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 11-Jan-24

Client: ALS Laboratory Group
Project: VA24A0175
WorkOrder: **24010156**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **ALS-BURNABY** Date/Time Received: **08-Jan-24 09:13**

Work Order: **24010156** Received by: **MB**

Checklist completed by Madison Bufler 08-Jan-24 Reviewed by: Hannah Ponder 08-Jan-24

eSignature | Date | eSignature | Date

Matrices: Air

Carrier name: DHL

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	5.8	120489	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	1/8/2024 9:19		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Chain of Custody

ALS Environmental - Vancouver
8081 Lougheed Highway
Burnaby BC Canada V5A 1W9

24C10156

161964

Destination Lab:	**USA - Cincinnati**
Address:	4388 Glendale-Milford Road Cincinnati OH United States 45242
Client:	BW Gold Ltd.
Work Order Number:	**VA24A0175**
Original Receipt Date/Time	Instructions Received
03/01/2024 12:40	

Relinquished By

Date/Time

Received By

Date/Time 1-8-24 9:13

Receipt Temp 5.8 120489

Return as Indicated: Results: alsev.datasublet@alsglobal.com Invoice: alsev.datasublet@alsglobal.com Electronic Data: alsev.datasublet@alsglobal.com

Attention: Amber Springer

Ice packs

ALS Sample ID	Client ID	Matrix	Container Type	Test Codes	Method Description	Due Date	Sampling Date and Time	Remarks
VA24A0175-001	RAD1	Air	Silica Gel Tube	Dioxides m/v	Dioxides by Radiello in Air (ppbv)	24-01-2024	26/12/2023 16:34	

1

DHL

Chain of Custody (COC) / Analytical Request Form
www.alsglobal.com Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 045
Page 1 of 1

Report To	Contact and company name below will appear on the final report	Report Format / Distribution	Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)
Company:	Blackwater Gold Mine	Select Report Format: X PDF X EXCEL X EDD (DIGITAL)	Regular [R] Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:	Mark Warbanski	Quality Control (QC) Report with Report X YES NO	PRIORITY (Surcharges apply): 4 day [P4-20%] / 3 day [P3-25%] / 2 day [P2-50%] — EMERGENCY: 1 Business day [E - 100%] / Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)]
Phone:	778-818-0327	Compare Results to Criteria on Report - provide details below if box checked X	
	Company address below will appear on the final report	Select Distribution: EMAIL MAIL FAX	
Street:	101 - 139 1st Street East	Email 1 or Fax Envirogeneral@artemisgoldinc.com	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
City/Province:	Vanderhoof, BC	Email 2 Ktanaka@Artemisgoldinc.com	For tests that can not be performed according to the service level selected, you will be contacted.
Postal Code:	V0J 3A0	Email 3	
Invoice To	Same as Report To YES NO	Invoice Distribution	Analysis Request
	Copy of Invoice with Report YES NO	Select Invoice Distribution: EMAIL MAIL FAX	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below
Company:	Artemis Gold Inc	Email 1 or Fax Accounts@artemisgoldinc.com	
Contact:	Accounts Payable	Email 2 mwarkbanski@artemisgoldinc.com	
Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center: PO#	
Job #:		Major/Minor Code: Routing Code:	
PO / AFE:	15180	Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		ALS Contact: Amber Springer Sampler: BWG	

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Start Date	Start Time	End Date (dd-mmm-yy)	End Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Radiello NO2 and SO2	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	RAD1	19-Dec-23	8:54	12/26/2023	13:34	Sorbent Tube	1	R		

Environmental Division
Vancouver
Work Order Reference
VA24A0175

Telephone : +1 604 253 4188

Drinking Water (DW) Samples1 (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)	SAMPLE CONDITION AS RECEIVED (lab use only)
Are samples taken from a Regulated DW System? YES NO	Please upload to EMS, EMS ID E331131	Frozen O SIF Observations Yes O No O
Are samples for human consumption/ use? YES NO		Ice Packs O Ice Cubes O Custody seal intact Yes O No O
		Cooling Initiated O

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
	3°C

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: J. Roy	Date: 12/30/23	Time: 9:00	Received by:	Date:	Time:	Received by: RK	Date: 01/03/2024	Time: 9:40 am

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.

CERTIFICATE OF ANALYSIS

Work Order	: **VA24A0206**	Page	: 1 of 2
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 04-Jan-2024 10:15
PO	: 15180	Date Analysis Commenced	: 19-Jan-2024
C-O-C number	: 17-046	Issue Date	: 19-Jan-2024 13:54
Sampler	: BWG		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Kaitlyn Gardner	Account Manager Assistant	Internal Subcontracting, Cincinnati, Ohio

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*
ppbv	parts per billion (volume/volume)

<: 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: **Sorbent Tube**
(Matrix: **Air**)

Analyte	*CAS Number*	*Method/Lab*	*LOR*	*Unit*	*Client sample ID*	**RAD1**	----	----	----	----
					Client sampling date / time	02-Jan-2024 12:39	----	----	----	----
						VA24A0206-001	---------	---------	---------	---------
						Result	----	----	----	----
Inorganics										
Sulfur dioxide (as SO2)	7446-09-5	Dioxides m/v/1A	1	ppbv		<0.21	----	----	----	----
Nitrogen dioxide (as NO2)	10102-44-0	Dioxides m/v/1A	1	ppbv		2.0	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL REPORT

Work Order	: **VA24A0206**	Page	: 1 of 2
Client	: BW Gold Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	:	Telephone	: +1 604 253 4188
Project	: Radiello Testing (NO2, SO2)	Date Samples Received	: 04-Jan-2024 10:15
PO	: 15180	Date Analysis Commenced	: 19-Jan-2024
C-O-C number	: 17-046	Issue Date	: 19-Jan-2024 13:54
Sampler	: BWG ----		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

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*
Kaitlyn Gardner	Account Manager Assistant	USA - Cincinnati Internal Subcontracting, Cincinnati, Ohio

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.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA24A0206**	Page	: 1 of 4
Client	: **BW Gold Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	: Mark Warbanski	Account Manager	: Amber Springer
Address	: 3083-595 Burrard St Vancouver BC Canada V7X 1L3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
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Sampler	: BWG		
Site	:		
Quote number	: VA23-BWGL100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

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 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: **Air**

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*	
Inorganics : Dioxides by Radiello in Air (ppbv)										
Silica Gel Tube										
RAD1	Dioxides m/v	02-Jan-2024	----	----	----		19-Jan-2024	----	17 days	

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

- **No Quality Control data available for this section.**

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
Dioxides by Radiello in Air (ppbv)	Dioxides m/v Cincinnati - Environmental - 4388 Glendale-Milford Road Cincinnati Ohio United States 45242	Air	See attached report.	See attached report

19-Jan-2024

Amber Springer
ALS Environmental
8081 Lougheed HWY
Suite 100
Burnaby, BC V5A 1W9

Re: **VA24A0206** Work Order: **24010186**

Dear Amber,

ALS Environmental received 1 sample on 09-Jan-2024 09:53 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 8.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Hannah Ponder

Electronically approved by: Hannah Ponder

Hannah Ponder

Report of Laboratory Analysis

ALS Environmental

Date: 19-Jan-24

Client: ALS Environmental
Project: VA24A0206
Work Order: **24010186**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
24010186-01	VA24A0206-001	Air		1/2/2024 15:39	1/9/2024 09:53	☐

ALS Environmental

Date: 19-Jan-24

Client: ALS Environmental
Project: VA24A0206
Work Order: 24010186

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

Compound identification is based upon retention time matching only. Any compound with a similar retention time will interfere.

Samples were prepared and analyzed by the analytical method and the laboratory's applicable standard operating procedure listed below:
- IH-001- "Determination of Analytes Using NIOSH and OSHA Methods Using Gas Chromatography."
- IH-002- "Determination of Suspended Particulates in the Atmosphere Using Various Media"
- IH-003- "Determination of Suspended Particulates Not Otherwise Regulated (Total and Respirable)."
- IH-004- "Determination of Analytes by NIOSH and OSHA Methods Using Liquid Chromatography."
- IH-005- "Benzene-Soluble Fraction and Total Particulate (Asphalt Fume)."
- IH-006- "Methods IO-3.1 and IO-3.4 Modified for Metals Preparation and Analysis for Suspended Particulates."
- IH-007- "Colorimetric Determination of Hydrogen Sulfide in Air."
- IH-196- "Carbon Black by OSHA 196."
- IH-6009- "Determination of Mercury in Industrial Hygiene Samples by Manual Cold Vapor Atomic Absorption Spectroscopy."
- ENV-6010B- "Determination of Trace Metals in Solution by Inductively Coupled Plasma-Atomic Emission Spectroscopy by EPA Method 6010B Non-VAP."
- IH-7300 modified- "Elements by ICP."

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

All sampling information was provided by the client.

ALS Environmental

Date: *19-Jan-24*

Client: ALS Environmental
Project: VA24A0206

Work Order: 24010186

Analytical Results

Lab ID: 24010186-01A
Client Sample ID: VA24A0206-001

Collection Date: 1/2/2024 3:39:00 PM
Matrix: AIR

Analyses

DIOXIDES BY RADIELLO		Method: **IC**	Time (Min): **10025**	Analyst: **JAP**
Date Analyzed: 1/9/2024 12:19	µg/sample	Reporting Limit µg/sample	ppb	
Nitrogen Dioxide	**2.8**	**1.0**	**2.0**	
Sulfur Dioxide	ND	1.0	<0.21	

Note:

ALS Environmental

Date: 19-Jan-24

Client: ALS Environmental
Work Order: 24010186
Project: VA24A0206

QC BATCH REPORT

Batch ID: **96123** Instrument ID **IC2** Method: **IC**

MBLK Sample ID: **MBLK-96123-96123** Units: **µg/sample** Analysis Date: **1/9/2024 11:45 AM**
Client ID: Run ID: **IC2_240108A** SeqNo: **3272916** Prep Date: **1/9/2024** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	ND	1.0								
Sulfur Dioxide	ND	1.0								

LCS Sample ID: **LCS-96123-96123** Units: **µg/sample** Analysis Date: **1/9/2024 11:51 AM**
Client ID: Run ID: **IC2_240108A** SeqNo: **3272917** Prep Date: **1/9/2024** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.099	1.0	5	0	102	79-130	0			
Sulfur Dioxide	5.982	1.0	5	0	120	68.6-146	0			

LCSD Sample ID: **LCSD-96123-96123** Units: **µg/sample** Analysis Date: **1/9/2024 11:58 AM**
Client ID: Run ID: **IC2_240108A** SeqNo: **3272918** Prep Date: **1/9/2024** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen Dioxide	5.179	1.0	5	0	104	79-130	5.099	1.57	20	
Sulfur Dioxide	6	1.0	5	0	120	68.6-146	5.982	0.298	20	

The following samples were analyzed in this batch: 24010186-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 19-Jan-24

Client: ALS Environmental
Project: VA24A0206
WorkOrder: **24010186**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **ALS-VANCOUVER** Date/Time Received: **09-Jan-24 09:53**

Work Order: **24010186** Received by: **AB1**

Checklist completed by Alec Bolender (eSignature) 09-Jan-24 (Date) Reviewed by: Hannah Ponder (eSignature) 09-Jan-24 (Date)

Matrices: air
Carrier name: DHL

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.2	120489	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Chain of Custody

ALS Environmental - Vancouver
8081 Lougheed Highway
Burnaby BC Canada V5A 1W9

162034

Destination Lab:	**USA - Cincinnati**
Address:	4388 Glendale-Milford Road Cincinnati OH United States 45242
Client:	BW Gold Ltd.
Work Order Number:	**VA24A0206**
Original Receipt Date/Time	Instructions Received
04/01/2024 18:49	

24010186

Relinquished By

Date/Time

Received By

Date/Time
1/9/24 0953

Receipt Temp 3.2C/1.2C

Return as Indicated: Results: alsev.datasublet@alsglobal.com Invoice: alsev.datasublet@alsglobal.com Electronic Data: alsev.datasublet@alsglobal.com

Attention: Amber Springer

ALS Sample ID	Client ID	Matrix	Container Type	Test Codes	Method Description	Due Date	Sampling Date and Time	Remarks
VA24A0206-001	RAD1	Air	Silica Gel Tube	Dioxides m/v	Dioxides by Radiello in Air (ppbv)	25-01-2024	02/01/2024 15:39	

Sample Exposure Interval: 10,025 minutes

PHL

Chain of Custody (COC) / Analytical Request Form
www.alsglobal.com Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 - 046
Page 1 of 1

Report To	Contact and company name below will appear on the final report	Report Format / Distribution	Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)
Company:	Blackwater Gold Mine	Select Report Format: X PDF X EXCEL X EDD (DIGITAL)	Regular [R] Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:	Mark Warbanski	Quality Control (QC) Report with Report X YES NO	Priority (Business Days): 4 day [P4-20%]; 3 day [P3-25%]; 2 day [P2-50%]
Phone:	778-818-0327	Compare Results to Criteria on Report - provide details below if box checked X	Emergency: 1 Business day [E - 100%]; Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)]
	Company address below will appear on the final report	Select Distribution: EMAIL MAIL FAX	
Street:	101 - 139 1st Street East	Email 1 or Fax Enviroqeneral@artemisgoldinc.com	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
City/Province:	Vanderhoof, BC	Email 2 Klanaka@Artemisgoldinc.com	For tests that can not be performed according to the service level selected, you will be contacted.
Postal Code:	V0J 3A0	Email 3	
Invoice To	Same as Report To YES NO	Invoice Distribution	
	Copy of Invoice with Report YES NO	Select Invoice Distribution: EMAIL MAIL FAX	
Company:	Artemis Gold Inc	Email 1 or Fax Accounts@artemisgoldinc.com	
Contact:	Accounts Payable	Email 2 mwarkbanski@artemisgoldinc.com	

Project Information	Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	AFE/Cost Center:	PO#:
Job #:	Major/Minor Code:	Routing Code:
PO / AFE: 15180	Requisitioner:	
LSD:	Location:	
ALS Lab Work Order # (lab use only):	ALS Contact: Amber Springer	Sampler: BWG

Analysis Request — Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Start Date	Start Time	End Date (dd-mmm-yy)	End Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Radiello NO2 and SO2	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	RAD1	26-Dec-23	13:34	2/1/2024	12:39	Sorbent Tube	1	R		

Environmental Division
Vancouver
Work Order Reference
VA24A0206

Telephone : +1 604 253 4188

Drinking Water (DW) Samples1 (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? YES NO Are samples for human consumption/ use? YES NO	Please upload to EMS, EMS ID E331131

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	O	SIF Observations	Yes O	No	O
Ice Packs	✓ Ice Cubes O	Custody seal intact	Yes O	No	O
Cooling Initiated	O				

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
	4C

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)		FINAL SHIPMENT RECEPTION (lab use only)		
Released by: Jeremie Roy	Date: 1/3/2023	Time: 09:00	Received by:	Date:	Time:	Received by: SP	Date: 4/1/24 Time: 10:15AM

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.**

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