Soil and Plant Tissue Sampling, July 2023

Prepared for:

Weir Minerals
18933 34A Avenue
Surrey, BC V3Z 1A7

Project No. 107739-01

March 15, 2024

Prepared by:

Ausenco Sustainability ULC
18th Floor, 4515 Central Boulevard
Burnaby, BC, Canada V5H 0C6
T +1.604.669.0424
F +1.604.669.0430
W ausenco.com

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1.0 Introduction

Weir Canada Inc. (Weir) was issued Air Permit GVA1081 for operations at their Surrey manufacturing facility (the Facility) located at 18933 34A Avenue. Reporting requirement #9 in the Air Permit requires Weir to provide a written report of the findings of a sampling and assessment program which assesses the impacts of the emissions from the facility on the nearby soil, plant tissue and water. The sampling and assessment program must adhere to the methodologies and criteria outlined in the approved plan and must be conducted by qualified personnel.

This report provides the analytical results of the soil and plant tissue sampling conducted on July 17, 2023. The sampling program follows the requirements outlined in the plan dated November 5, 2018 and approved by Metro Vancouver. Previous soil and plant tissue sampling was conducted, from June 28 to July 4, 2018 (*Soil and Plant Tissue Sampling 2018*), on May 3, 2019 (*Soil and Plant Tissue Sampling - 2019*), August 15, 2019 (*Soil and Plant Tissue Sampling – August 2019),* and April 9, 2020 (*Soil and Plant Tissue Sampling – April 2020*). As per the approved sampling and assessment plan, groundwater and surface water sampling are not needed at this time. If soil sample results in comparison to the assessment criteria indicate there is a potential risk of contamination, a groundwater / surface water sampling program will be developed.

This Work was performed in accordance with the Professional Services Agreement between Ausenco Sustainability ULC. (Ausenco), a wholly owned subsidiary of Ausenco Engineering Canada Inc., and Weir Minerals (Client), dated October 6, 2016 (Contract). This Report has been prepared by Ausenco, based on fieldwork conducted by Ausenco, for sole benefit and use by Weir Minerals. In performing this Work, Ausenco has relied in good faith on information provided by others, and has assumed that the information provided by those individuals is both complete and accurate. This Work was performed to current industry standard practice for similar environmental work, within the relevant jurisdiction and same locale. The findings presented herein should be considered within the context of the scope of work and project terms of reference; further, the findings are time sensitive and are considered valid only at the time the Report was produced. The conclusions and recommendations contained in this Report are based upon the applicable guidelines, regulations, and legislation existing at the time the Report was produced; any changes in the regulatory regime may alter the conclusions and/or recommendations.

2.0 Sampling Program

Ausenco conducted one site visit on July 17, 2023, to complete the sampling. The soil and vegetation samples were co-located from four locations, as outlined in **Figure 1.** Samples collected at the south sample (SS), north sample (NS), and maximum point of impingement (MP) sample locations were located within 500 m of the Facility, in the potential deposition zone. The baseline sample (BL) was located approximately 700 metres east of the Facility and is considered to be outside the influence of the Facility (i.e., ambient concentrations at this location are similar to background levels based on dispersion modelling conducted for the Facility).

2.1 Soil Sampling

At each sample location, a surface soil sample (0 - 10 cm) was collected to determine any potential increase in contaminant levels over time that potentially may be due to deposition from the Facility. A subsurface sample (30 – 50 cm) was also collected and used to evaluate whether contaminant levels in subsurface soil increase over time due to leaching and transport of contaminants from surface soil to deeper layers. Over time, this information can be used to determine whether contaminant leaching presents a potential risk to groundwater quality.

Soil samples were collected using a Dutch auger and subsequently placed into a stainless-steel bowl, where the sample was mixed and placed in the appropriate sample containers (laboratory supplied container suitable for the required analysis). A duplicate surface sample was collected at NS0-10. Physical soil characteristics were documented and are presented in **Table 2.1**.

Each sample container was placed on ice in a cooler and once all the samples were collected, the cooler was dropped off at Bureau Veritas, an accredited laboratory under the Canadian Association for Laboratory Accreditation (CALA) and recognized as a qualified laboratory by the BC MOE. Coolers were delivered accompanied by a chain-of-custody form. All appropriate field QA/QC measures were followed including new nitrile gloves worn between sampling stations, sampling equipment decontaminated between stations, and use of standard chain of custody procedures.

Table 2.1 Soil Sample Characteristics

Soil Sample	Primary Soil Type	Secondary Soil Type (20-35%)	Munsell Colour	Colour	Sheen (Y/N)	Soil Moisture	Notes
BL0-10cm	Sand	Silt	10 YR 3/6	Brown-Red	No	Dry	Background location: cedar stand, lots of garbage; loose soil, some organic material
BL30-50cm	Sand	Silt	10 YR 3/6	Brown-Red	No	Dry	Slightly more compact and less organic material than 0-10cm
MP0-10cm	Sand	Silt	10 YR 4/3	Brown-Dark Brown	No	Dry	Organic material (roots, wood, leaves), loose, has plant cover (fireweed and tansy)
MP30-50cm	Sand	Silt	10 YR 4/3	Brown	No	Dry	Organic material, loose, contains more gravel/cobble than 0-10cm
NS0-10cm	Silt	Clay	10 YR 3/3	Brown-Red	No	Dry	Loose, heavy blackberry cover
NS30-50cm	Silt	Clay	10 YR 3/3	Brown	No	Dry	More compact, some gravel/cobble
SS0-10cm	Silt	Sand	7.5 YR 4/3	Brown-Red	No	Dry	Compact, contains gravel
SS30-50cm	Silt	Sand	7.5 YR 4/3	Brown-Red	No	Dry	Very compact, less gravel than 0-10cm

2.2 Plant Tissue Sampling

Plant tissue samples of Himalayan Blackberry (*Rubus armeniacus*), were collected using work gloves, within one metre of the soil sampling locations (**Photos 8** to **13**). Samples were collected at all four sites (SS, NS, MP, BL). Approximately 50 newly grown mature leaves were collected from one Himalayan Blackberry bush at each site. Leaves were targeted from the mid-portion of non-fruit bearing canes. Protocols and information provided in the *Biomonitoring of Air Quality Using Plants*[1] document was reviewed and incorporated into the sampling methodology, where appropriate.

[1] Mulgrew, A and P. Williams. 2000. Biomonitoring of Air Quality Using Plants. WHO Collaborating Centre for Air Quality Management and Air Pollution Control at the Federal Environmental Agency. Berlin, Germany.

3.0 Assessment Parameters and Criteria

The sampling program considered the substances listed in **Table 3.1**. It is worth noting that ethylbenzene, toluene, methyl isobutyl ketone, and hexachlorocyclopentadiene are compounds that are potentially attributable to emissions from permit sources 1 to 5. Sources 1 to 5 have not been constructed, and therefore these substances are not presently point source emissions from Weir's facility.

As communicated to Metro Vancouver in July 2018 and as noted in the approved sampling plan, analyses for hexachlorocyclopentadiene and volatile organic compounds (ethylbenzene, toluene, and methyl isobutyl ketone) in plant tissue would not meet the requirements for Canadian Association of Laboratory Accreditation (CALA) certification and therefore were not tested.

As per the approved sampling plan, soil data were compared to applicable soil quality guidelines under the BC Ministry of Environment and Climate Change Strategy (ENV) Contaminated Site Regulation for agricultural and residential land uses, supplemented with epidemiological data from other jurisdictions.

There are no provincial or federal regulations applicable to the plant tissue sampling conducted. The Canadian Food Inspection Agency and the Codex Alimentarius provides maximum residue limits in food for the protection of human and livestock. These maximum residue limits were reviewed and there are no limits for the parameters of concern with which to compare the plant tissue data.

Table 3.1 Parameters of Concern

Parameter of Concern	Tested in Soil (Y/N)	Tested in Plant Tissue (Y/N)
Hexachlorocyclopentadiene	Y	N
Ethylbenzene	Y	N
Toluene	Y	N
Methyl isobutyl ketone	Y[(a)]	N
Barium	Y	Y
Chromium	Y	Y
Copper	Y	Y
Molybdenum	Y	Y
Nickel	Y	Y
Selenium	Y	Y
Zinc	Y	Y

Note:

(a) Methyl isobutyl ketone was mistakenly excluded from analysis in July 2023. As this substance is not currently a point source emission from Weir's facility, it is not expected to alter the conclusions of this Report.

4.0 Results

All data have been tabulated (see **Table A** for soil analytical results and **Table B** for plant tissue analytical results) and can be found at the end of this document. Included in the tables is the calculated laboratory detection limit, defined as estimated quantitation limit (EQL). EQL provides the expected concentration that can be achieved within the limits of precision and accuracy during routine analyses[2]. The lab reports for these data are provided in **Appendix B**.

4.1 Soil

Measured concentrations of all substances are less than the applicable guidelines (**Table A**). All concentrations for hexachlorocyclopentadiene, ethylbenzene, toluene, volatile petroleum hydrocarbons (VPHs), and selenium fell below the laboratory detection limits. The duplicate sample results (NS0-10, DUP) are also presented in **Table A** and the relative percent difference (RPD) indicate very good agreement between the sample and duplicate collected. According to the BC Field Sampling Manual[3], the acceptable criteria for field duplicates is any RPD below 20%, and all substances achieved this criterion for RPD.

A comparison of measured soil concentrations to previous sampling in June to July 2018, May 2019, August 2019, and April 2020 is summarized in **Table 4.1**. Furthermore, **Figures 1 - 6** provide a comparison of how the concentrations of each parameter of concern in soil have changed over time for all SS, NS, MP and BL locations separately. Concentrations at the south (SS), north (NS), and maximum point of impingement (MP) sampling locations are within the range of concentrations observed at the background (BL) sampling location and are expected to represent natural variations. There were no apparent changes in measured soil concentrations across the different sampling events.

2 Johnson, R.K. 2001. Specifying and Evaluating Analytical Chemistry Quality Requirements for Ecological Risk Assessments. MESO-01-TM-01. February 2001.

3 B.C. Field Sampling Manual.2013. Water, Air, and Climate Change Branch, Ministry of Water, Land and Air Protection. Province of British Columbia.

Table 4.1 Comparison of Soil Concentrations, June 2018 to July 2023

Parameter of Concern	BC CSR RL_{LD}	CCME RL/PL	SS, NS, MP[a]					BL				
			Jun 2018	May 2019	Aug 2019	Apr 2020	Jul 2023	Jun 2018	May 2019	Aug 2019	Apr 2020	Jul 2023
Barium	350	500	73	66	72	63	93	59	62	97	74	57
Chromium	60	64	34	31	28	32	28	33	28	33	29	25
Copper	75	63	15	17	19	20	23	13	15	16	15	13
Molybdenum	3	10	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.7	0.6	0.4
Nickel	90	45	27	24	23	24	25	31	28	28	24	27
Selenium	1	1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Zinc	150	250	55	54	50	54	77	49	50	88	57	46
Hexachlorocyclopentadiene	95	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	15	0.018	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Toluene	0.5	0.08	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Methyl isobutyl ketone	-	4.5	<0.50	<0.50	<0.50	<0.50	-	<0.50	<0.50	<0.50	<0.50	-

Notes:

< = less than estimated quantitation limit (EQL).

(a) Concentrations shown represent average of all samples.

Note: Methyl isobutyl ketone was mistakenly excluded from analysis in July 2023. As this substance is not currently a point source emission from Weir's facility, it is not expected to alter the conclusions of this Report.

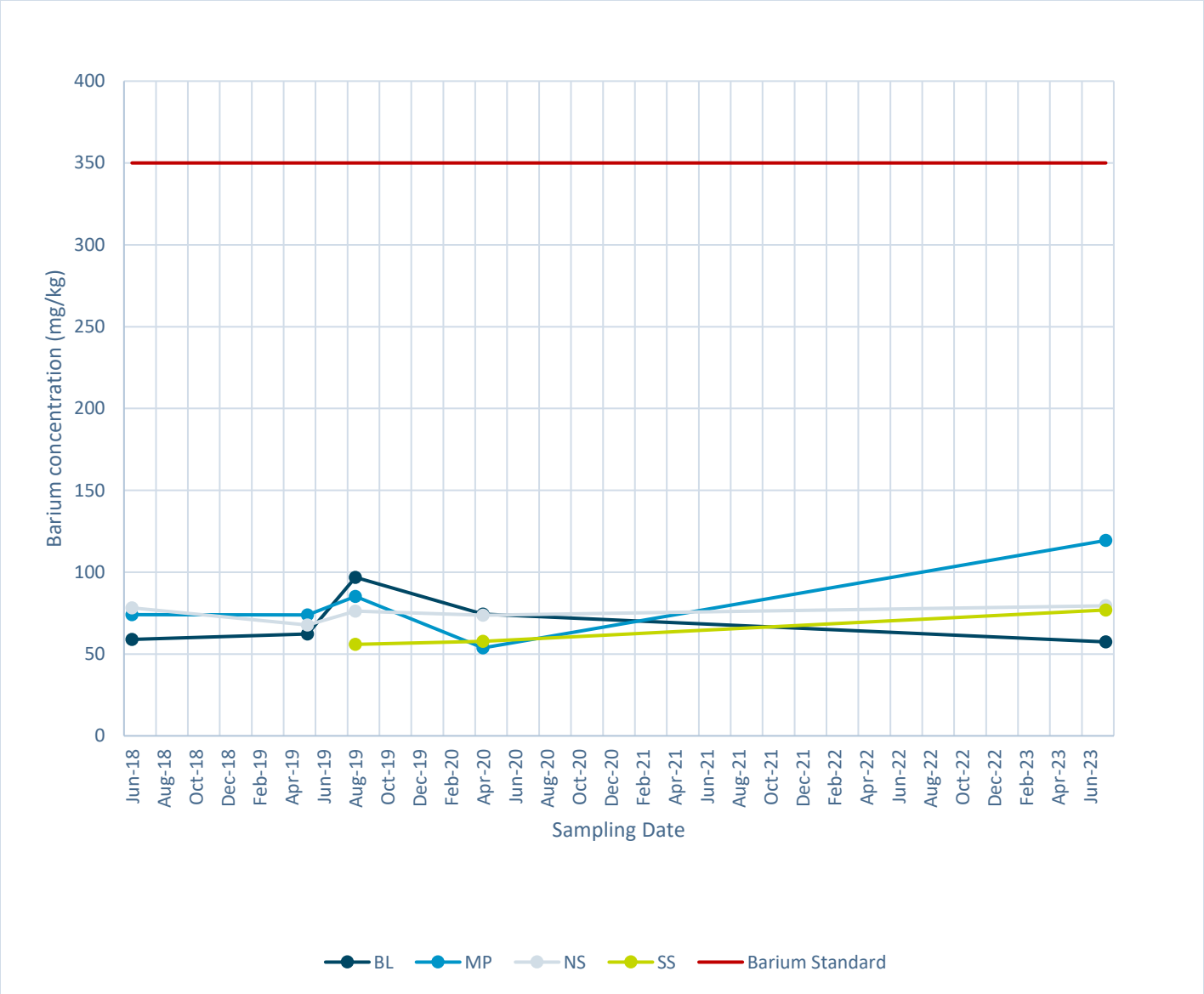

Figure 1 Average Barium Concentrations in Soil from June 2018 to June 2023, compared to most conservative standard.

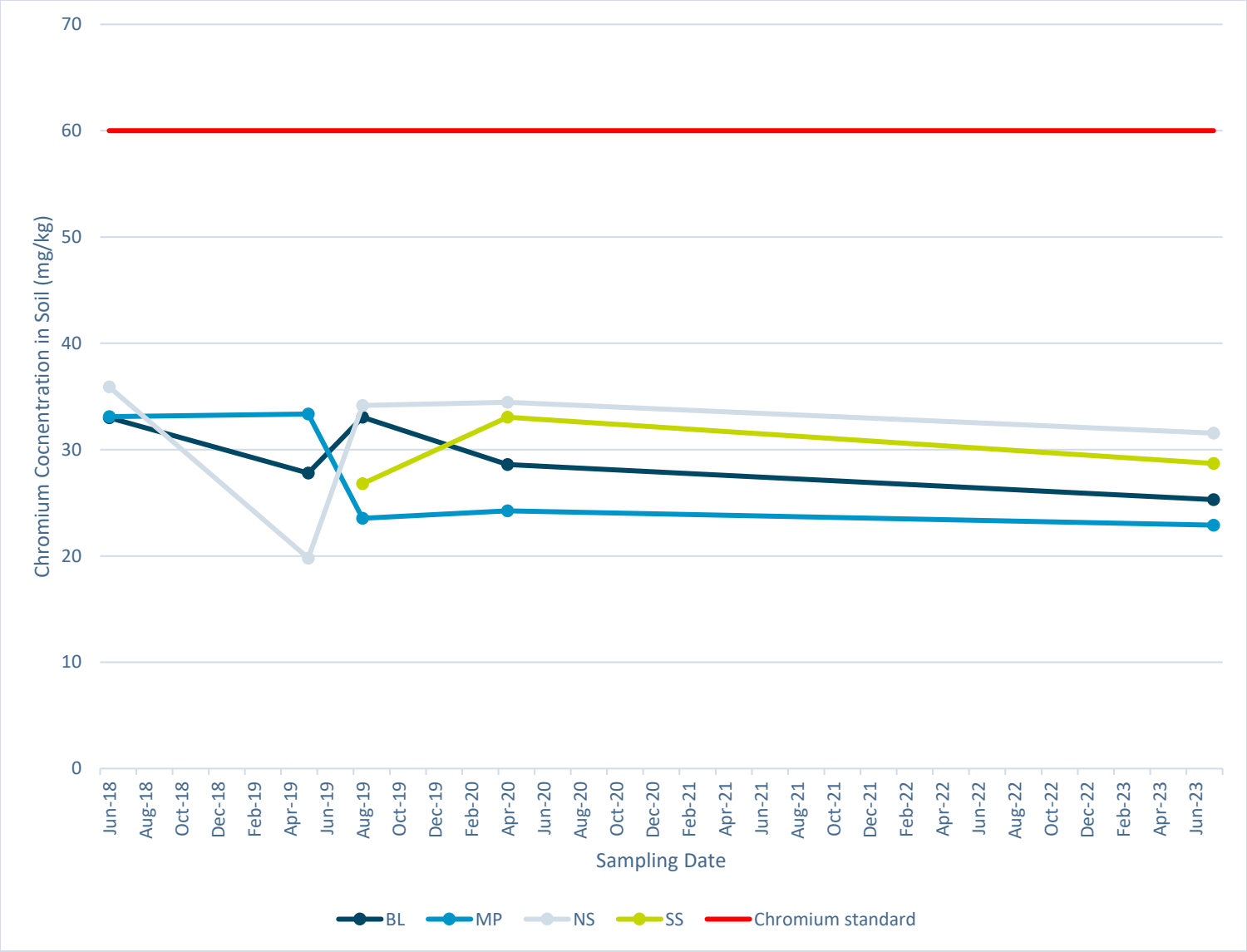

Figure 2 Average Chromium Concentrations in Soil from June 2018 to June 2023, compared to most conservative standard.

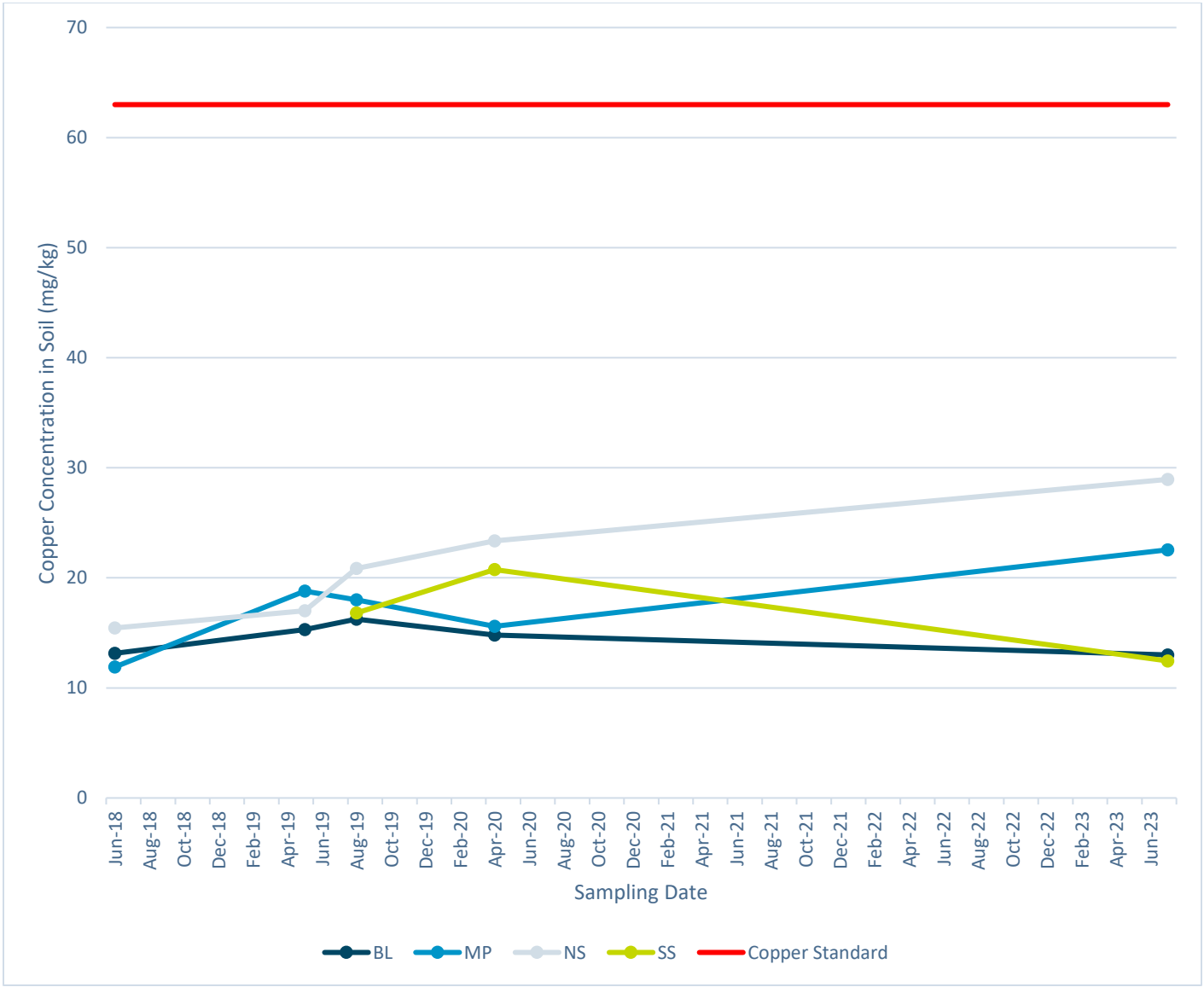

Figure 3 Average Copper Concentrations in Soil from June 2018 to June 2023, compared to the most conservative standard.

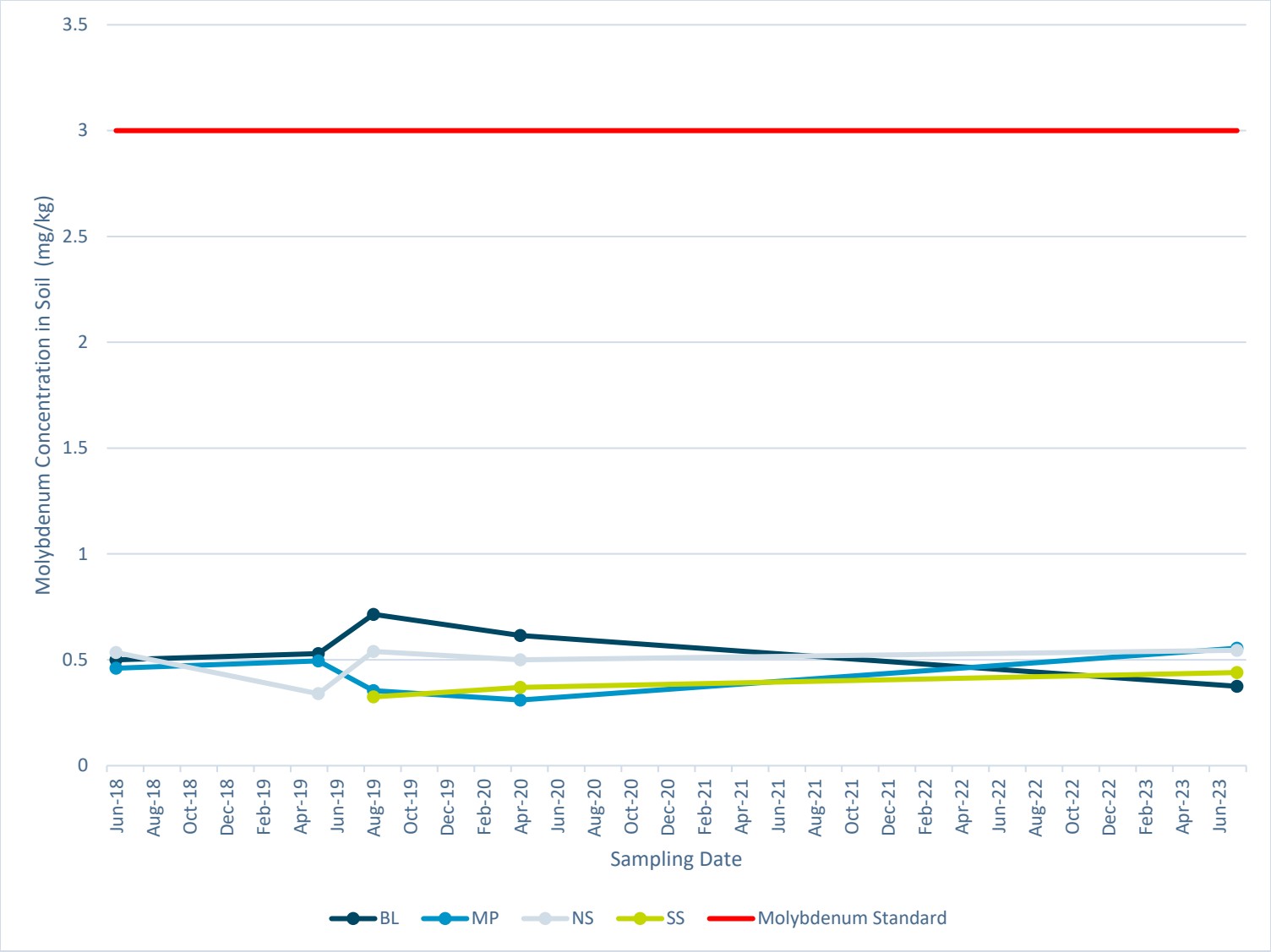

Figure 4 Average Molybdenum Concentrations in Soil from June 2018 to June 2023, compared to the most conservative standard.

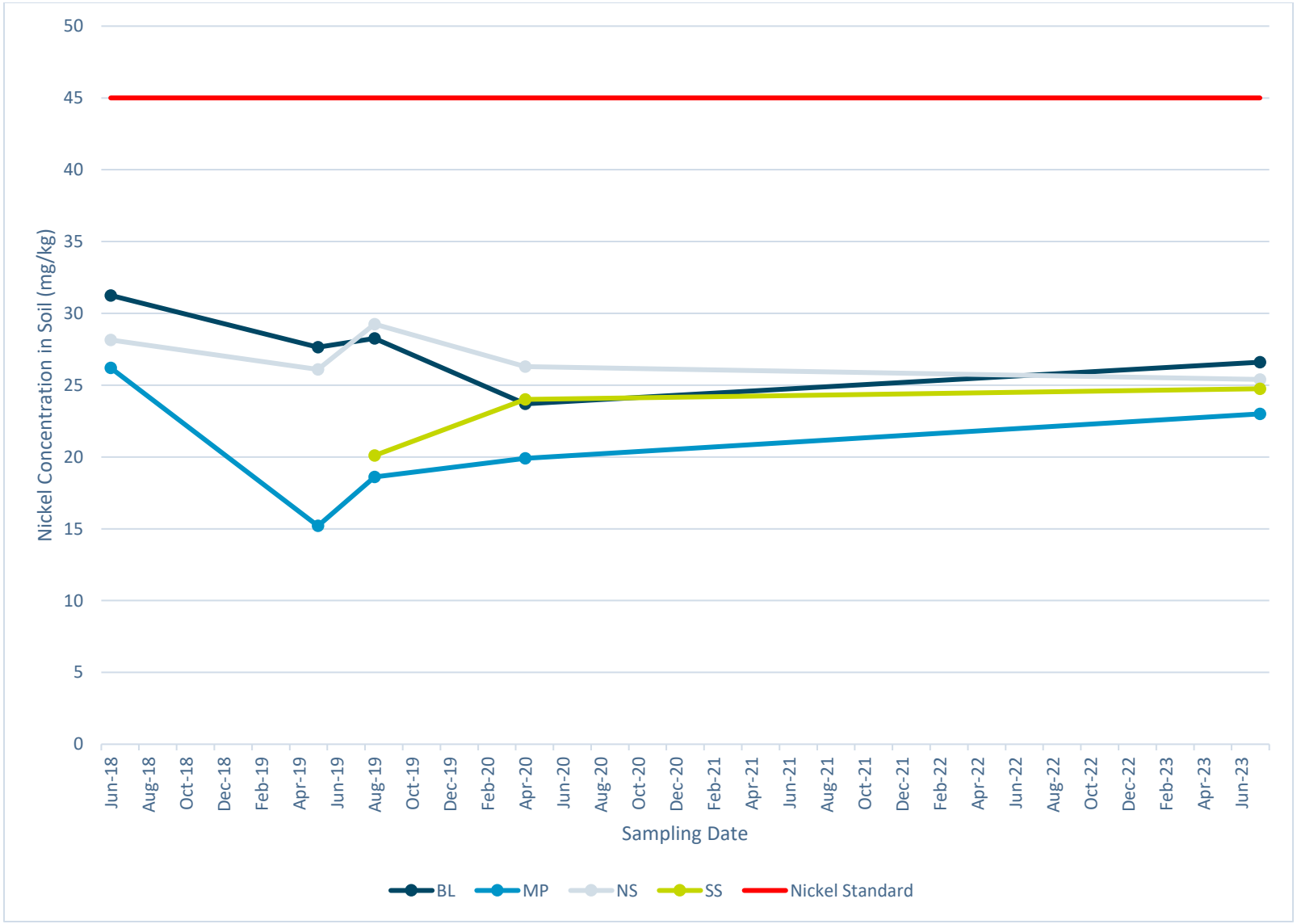

Figure 5 Average Nickel Concentrations in Soil from June 2018 to June 2023, compared to the most conservative standard.

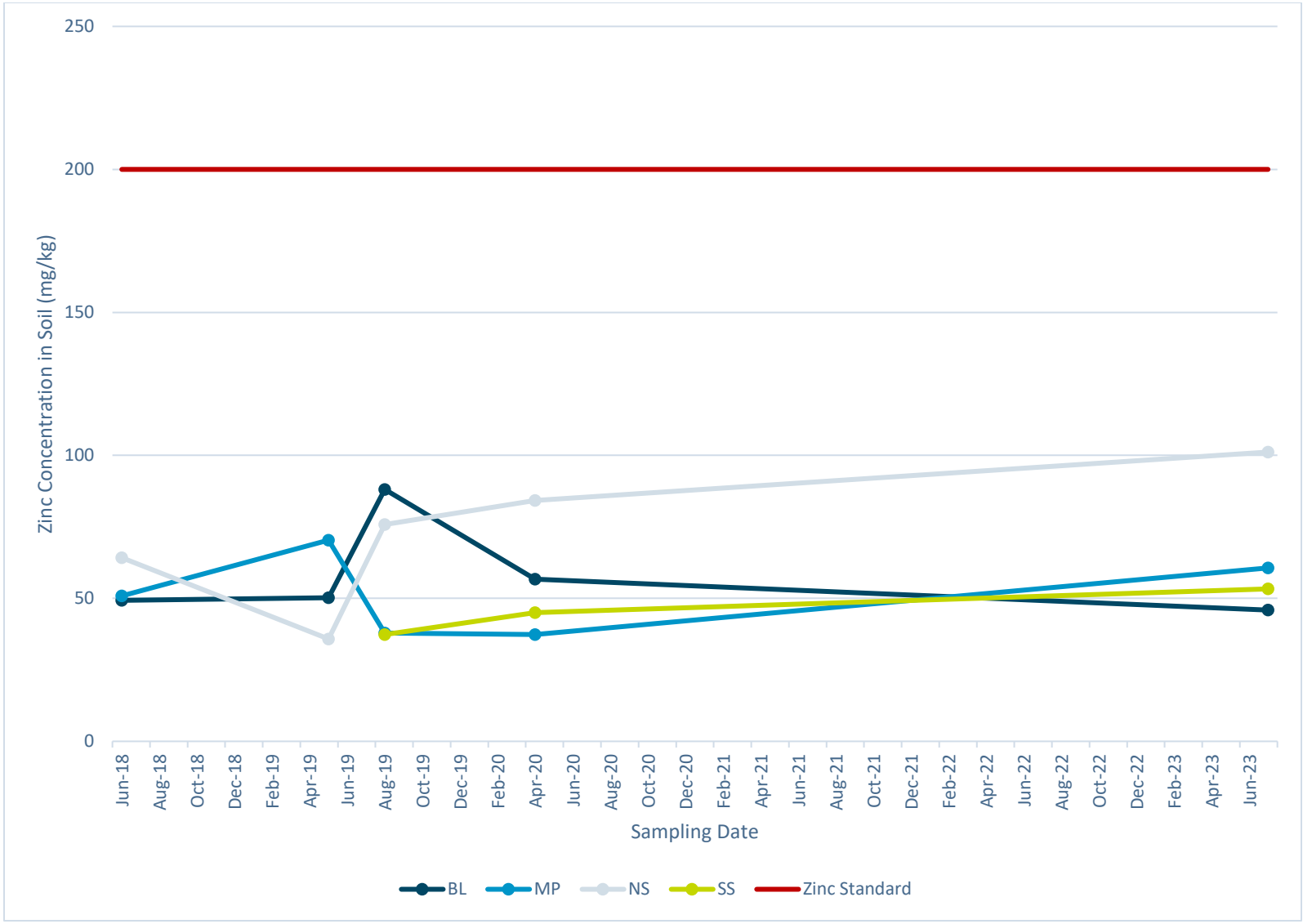

Figure 6 Average Zinc Concentrations in Soil from June 2018 to June 2023, compared to the most conservative standard.

4.2 Plant Tissue

There are no guidelines or regulations with which to compare plant tissue chemistry. Observations from the analytical data include:

- All selenium concentrations were below the laboratory detection limit of 0.05 mg/kg.
- Concentrations of barium, nickel and zinc found in SS, NS, and MP samples were lower than those in BL samples.
- Copper, nickel and zinc concentrations decreased across all sample locations since April 2020, including BL.
- Barium concentrations were more variable across all sample locations since April 2020, including BL.

A comparison of measured plant tissue concentrations to previous sampling in May 2019, August 2019, and April 2020 is summarized in **Table 4.2**. Furthermore, **Figures 7 - 12** provide a comparison of how the concentrations of each parameter of concern have changed over time for all SS, NS, MP and BL locations separately.

Table 4.2 Comparison of Tissue Concentrations, June 2018 to July 2023

Parameter of Concern	SS, NS, MP[a]				BL			
	May 2019	Aug 2019	Apr 2020	Jul 2023	May 2019	Aug 2019	Apr 2020	Jul 2023
Barium	56	72	34	66	58	58	44	82
Chromium	0.3	0.4	0.4	0.4	1.0	1.5	53	0.4
Copper	7.6	5.4	14	5.2	11	5.4	14	7.8
Molybdenum	1.5	1.2	2.1	1.9	0.5	0.6	0.3	0.2
Nickel	2.2	1.4	7.0	1.2	4.8	2.1	29	3.0
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Zinc	28	17	48	19	45	19	63	36

Notes:

< = less than estimated quantitation limit.

[a] Concentrations shown represent average of all samples.

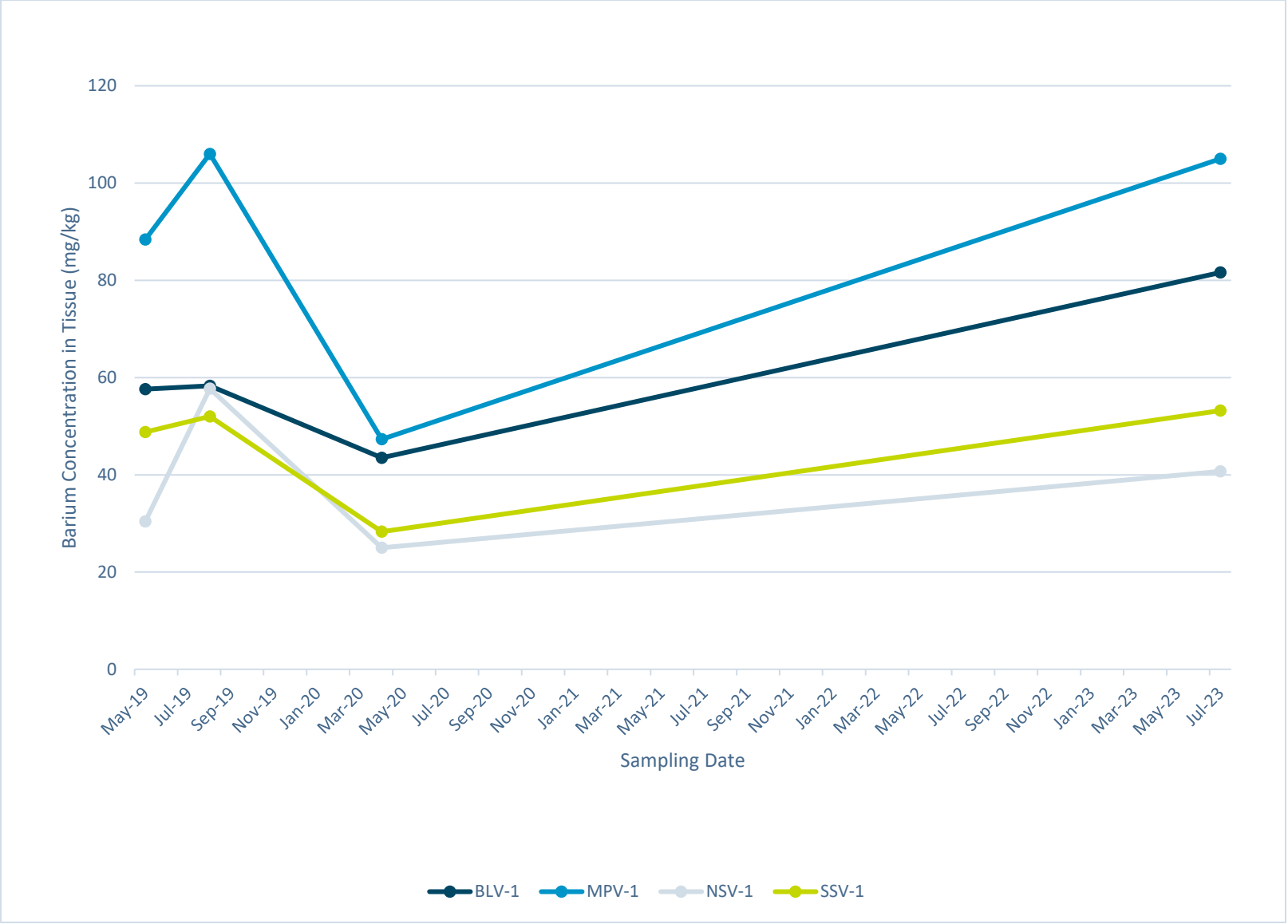

Figure 7 Average Barium Concentrations in Tissue from May 2019 to June 2023, no standard available for comparison.

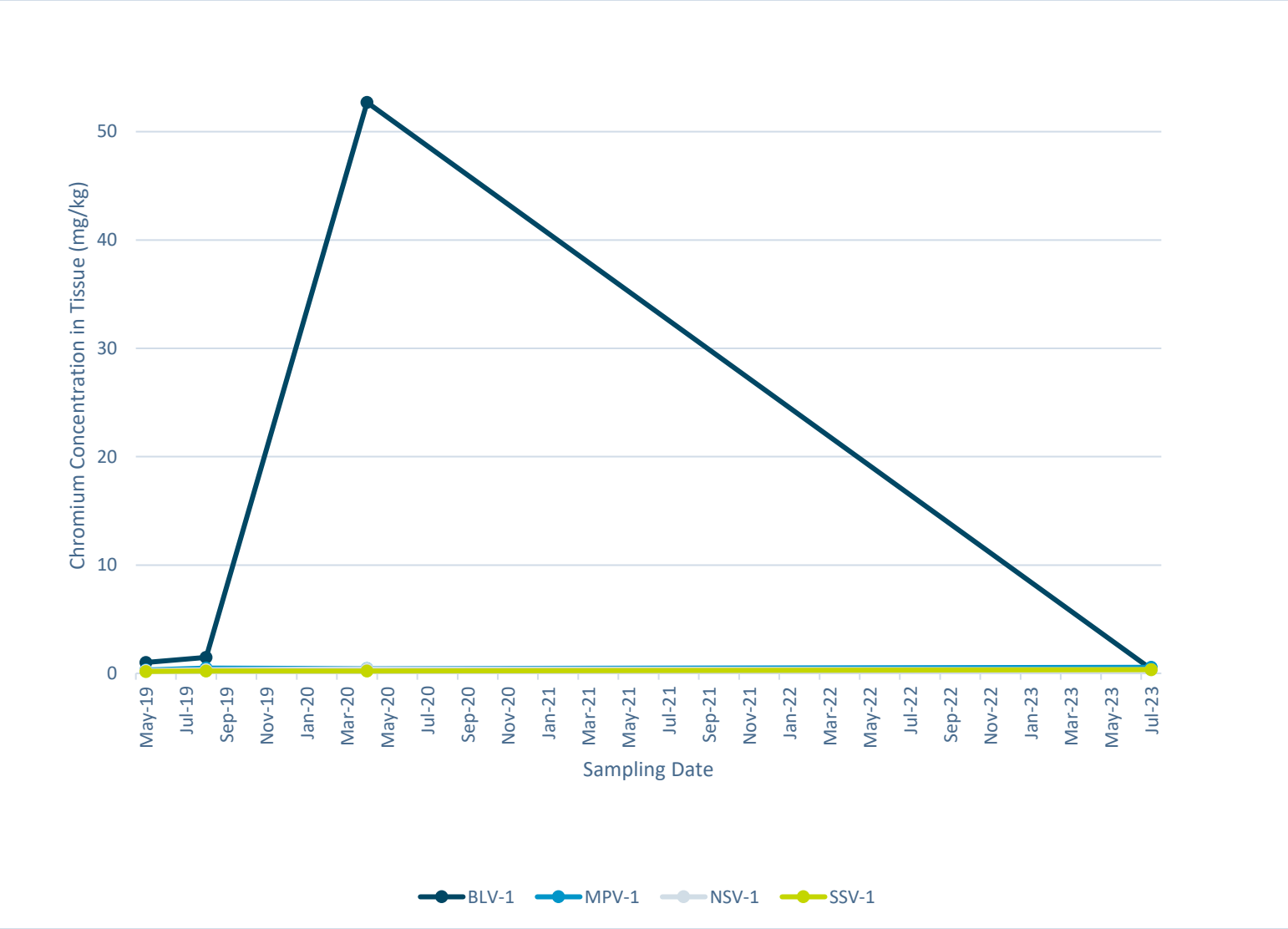

Figure 8 Average Chromium Concentrations in Tissue from May 2019 to June 2023, no standard available for comparison. Note that chromium concentrations at MPV-1, NSV-1, SSV-1 are all below 1 mg/kg.

Figure 9 Average Molybdenum Concentrations in Tissue from May 2019 to June 2023, no standard available for comparison.

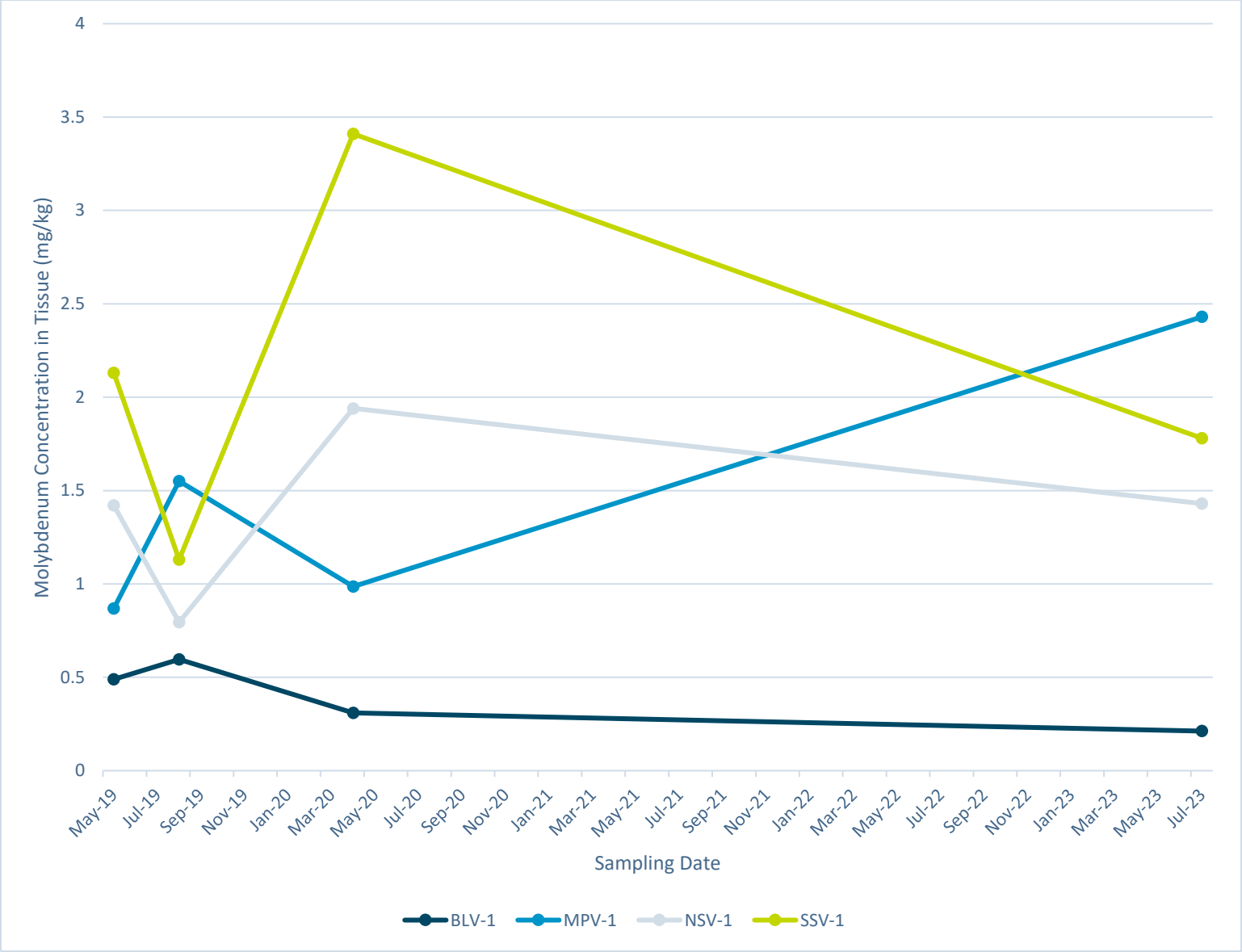

Figure 10 Average Molybdenum Concentrations in Tissue from May 2019 to June 2023, no standard available for comparison.

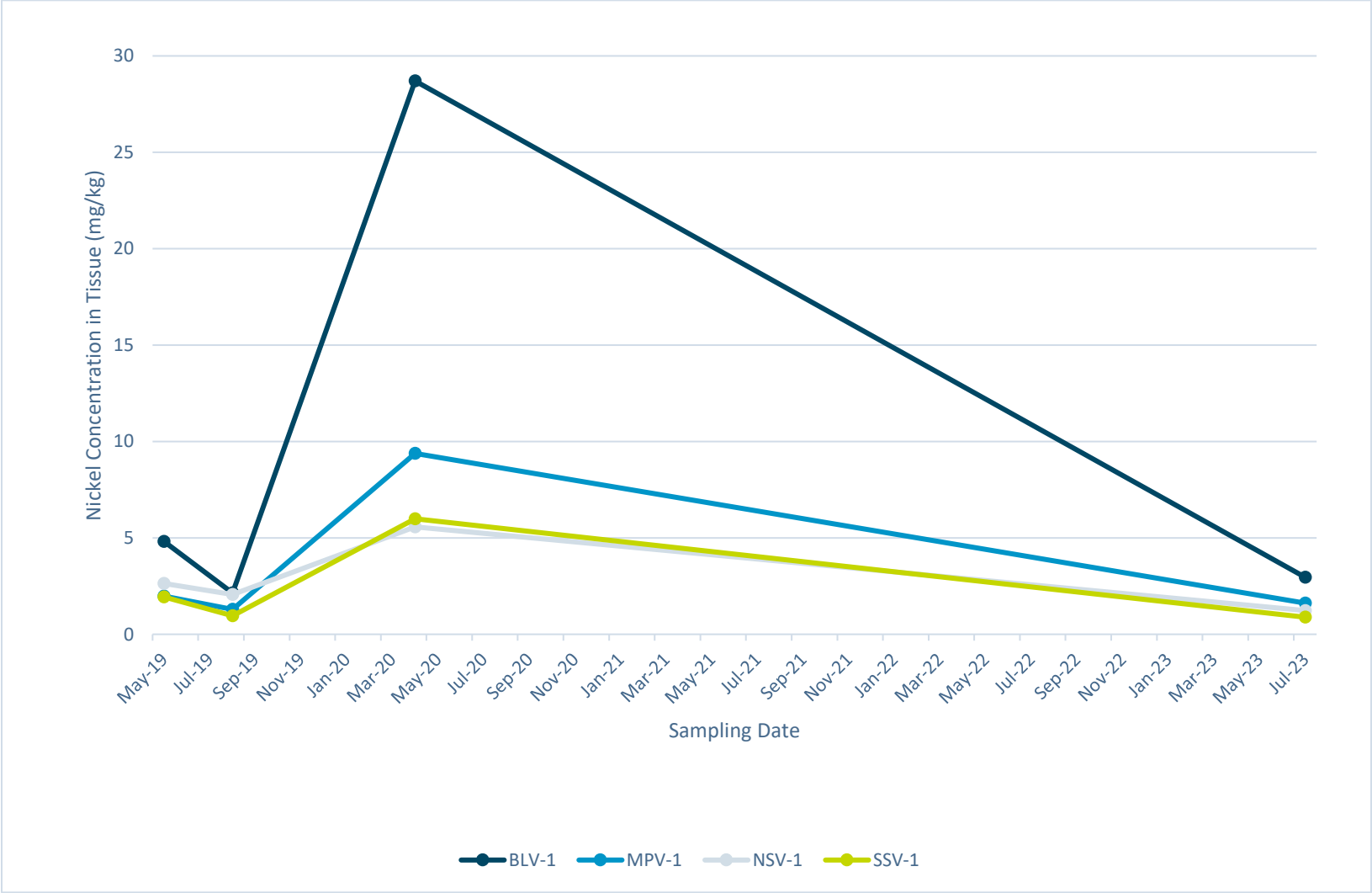

Figure 11 Average Nickel Concentrations in Tissue from May 2019 to June 2023, no standard available for comparison.

Figure 12 Average Zinc Concentrations in Tissue from May 2019 to June 2023, no standard available for comparison.

5.0 Closure

The data presented in this Report provides analytical results of the soil and plant tissue sampling conducted in July 2023 at three locations near the Weir facility and one baseline sample outside the zone of influence. No soil concentrations exceeded soil quality guidelines for agricultural and residential land uses. There are no guidelines or regulations with which to compare plant tissue chemistry. There is no apparent change in the concentrations of substances in soil or plant tissue between 2020 and 2023 outside the range of natural variation. No additional work or modification to the sampling plan is required at this time.

We sincerely appreciate the opportunity to have assisted you with this project and if there are any questions, please do not hesitate to contact the undersigned by phone at 604.669.0424.

Report prepared by:
Ausenco Sustainability ULC

Courtney Hansen, Dipl. EPT
Environmental Scientist

Report prepared by:
Ausenco Sustainability ULC

ORIGINAL SIGNED
AND STAMPED

Jennifer Trowell, M.ET, R.P.Bio.
Project Manager

Report reviewed by:
Ausenco Sustainability ULC

Ron Haley, M.Sc., MBA
Vice President, Mine Closure and Remediation

This document represents an electronic version of the original hard copy document, sealed, signed and dated by Jennifer Trowell, M.ET, R.P.Bio. and retained on file. The content of the electronically transmitted document can be confirmed by referring to the original hard copy and file. This document is provided in electronic format for convenience only. Ausenco Sustainability ULC shall not be liable in any way for errors or omissions in any electronic version of its report document

Tables

Table A Soil Analytical Data

				Location	BL		MP		NS				SS	
				Sample ID	BL0-10	BL30-50	MP0-10	MP30-50	NS0-10	DUP of NS0-10	RPD (%)	NS30-50	SS0-10	SS30-50
				Sample Date	2023-07-17	2023-07-17	2023-07-17	2023-07-17	2023-07-17	2023-07-17		2023-07-17	2023-07-17	2023-07-17
Parameter	**Units**	**EQL**	**BC CSR**	**CCME RL/PL**										
Field														
Soil Moisture	%	0.3	-	-	7.3	6.1	9.1	3.7	9.2	11	18%	8.9	3.6	3.7
Inorganics														
pH (Lab)	pH_Units		-	6-8	5.46	5.59	6.41	6.59	6.52	6.52	0%	6.53	5.55	5.64
Phosphorus	mg/kg	10	-	-	842	746	968	847	1380	1450	5%	1420	1780	1710
Metals														
Barium	mg/kg	0.05	350	500	58.7	56.1	147	91.8	84.7	99.8	16%	74.2	77.6	76.2
Chromium	mg/kg	0.1	60	64	24.8	25.8	24.6	21.2	31	32.2	4%	32.1	25.8	31.6
Copper	mg/kg	0.05	75	63	12	14.1	22.4	22.7	32.1	31	3%	25.8	12.6	12.3
Molybdenum	mg/kg	0.02	3	10	0.36	0.39	0.56	0.55	0.6	0.57	5%	0.49	0.45	0.43
Nickel	mg/kg	0.05	90	45	24.2	29	24.8	21.2	26.7	27.8	4%	24.1	24.5	25
Selenium	mg/kg	0.05	1	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	nc	<0.5	<0.5	<0.5
Zinc	mg/kg	0.2	150	250	46.4	45.4	68.9	52.3	107	106	1%	95.3	53.3	53.3
BTEX														
Benzene	mg/kg	0.005	0.035	0.0068	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	nc	<0.005	<0.005	<0.005
Ethylbenzene	mg/kg	0.01	15	0.018	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	nc	<0.01	<0.01	<0.01
Toluene	mg/kg	0.05	0.5	0.08	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	nc	<0.05	<0.05	<0.05
VPH														
VPH	mg/kg	10	200	-	<10	<10	<10	<10	<10	<10	nc	<10	<10	<10
VOCs														
Hexachlorocyclopentadiene	mg/kg	0.005	95	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	nc	<0.005	<0.005	<0.005

Notes:

(1) BCCSR Residential and Parkland (RL/PL) = Schedule 3.1 Part 1 (Matrix), Column 5, 6. and/or Schedule 3.1 Parts 2 and 3 (Generic), Column 6, 7 Soil Standard.

(2) For Matrix Standards the most stringent of the following site-specific factors were used: intake of contaminated soil, groundwater used for drinking water, toxicity to soil invertebrates and plants, major microbial functional impairment, groundwater flow to surface water used by aquatic life (freshwater and marine) For Generic Numerical Soil Standards, the more stringent of either Human Health (Part 2) or Ecological Health (Part 3) were used.

(3) CCME RL/PL = Canadian Council of Ministers of the Environment - Soil Quality Guidelines for the Protection of Environmental and Human Health - Residential/Parkland

(4) RPD = Relative Percent Difference

(5) EQL = Estimated Quantitation Limit

(6) RPDs have only been considered where a concentration is greater than 5 times the EQL.

Table B Plant Tissue Results

	Location		BL	MP	NS	SS
	Sample ID		BLV-1	MPV-1	NSV-1	SSV-1
	Sample Date		2023-07-17	2023-07-17	2023-07-17	2023-07-17
Parameter	**Units**	**EQL**				
Field						
Soil Moisture	%	0.3	58	62	55	52
Inorganics						
pH (Lab)	pH_Units		-	-	-	-
Phosphorus	mg/kg	10	1830	1820	1650	1400
Metals						
Barium	mg/kg	0.05	81.6	105	40.7	53.2
Chromium	mg/kg	0.1	0.39	0.56	0.33	0.34
Copper	mg/kg	0.05	7.81	6.13	5.51	3.93
Molybdenum	mg/kg	0.02	0.212	2.43	1.43	1.78
Nickel	mg/kg	0.05	2.95	1.62	1.23	0.886
Selenium	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05
Zinc	mg/kg	0.2	35.5	22.5	24	11.7

Figure

Figure 1 Sample Locations

Spring 2023 Sampling
18933 34A Avenue, Surrey, BC

Sample Locations

Legend

- Sample Location
- Facility
- Site Buffer (100 and 500m radius from Facility)

Notes

1. All mapped features are approximate and should be used for discussion purposes only.
2. This map is not intended to be a "stand-alone" document, but a visual aid of the information contained within the referenced Report. It is intended to be used in conjunction with the scope of services and limitations described therein.

Sources

- Aerial Image: ESRI World Imagery
- Inset Basemap: ESRI World Topographic Map

N

1:4,000

0 50 100 150 200 250

Metres

NAD 1983 UTM Zone 10N

Page Size: 11" x 17"

107739-01	Production Date: Sep 12, 2023	Figure 1

Ausenco Weir Minerals

Path: S:\Geomatics\Projects\107739\01\mxd\Fig1_107739_01_Sample_Locations_230912.mxd

Appendix A
Photographs

Photo 1 Baseline Location (BL) BL0-10 cm

Photo 2 Baseline Location (BL) BL30-50 cm

Photo 3 Maximum Point of Impingement (MP) MP30-50 cm

Photo 4 North Sample (NS) NS0-10 cm

Photo 5 North Sample (NS) NS30-50 cm

Photo 6 South Sample (SS) SS0-10 cm

Photo 7 South Sample (SS) SS30-50 cm

Photo 8 Himalayan blackberry bush at Baseline Location

Photo 9 Himalayan blackberry bush at Maximum Point of Impingement sample location

Photo 10 Himalayan blackberry bush at North Sample location

Photo 11 Himalayan blackberry bush at South Sample location

Photo 12 Example of plant tissue sample (MPV-1)

Photo 13 Example of plant tissue sample (SSV-1)

Appendix B
Analytical Lab Results

Your Project #: 107739-01
Your C.O.C. #: 699888-02-01, 699888-03-01

Attention: Cara Poulsen

Ausenco Sustainability Inc.
18th Floor, 4730 Kingsway
Burnaby, BC
Canada V5H 0C6

Report Date: 2023/08/22
Report #: R3384017
Version: 4 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C353970
Received: 2023/07/17, 15:10

Sample Matrix: Soil
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Volatile F1-BTEX (2)	9	N/A	2023/07/24	BBY WI-00033	Auto Calc
Elements by ICPMS (total) (3)	9	2023/07/21	2023/07/21	BBY7SOP-00004 / BBY7SOP-00001	EPA 6020b R2 m
Moisture	9	2023/07/19	2023/07/20	BBY8SOP-00017	BCMOE BCLM Dec2000 m
pH (2:1 DI Water Extract)	9	2023/07/21	2023/07/21	BBY6SOP-00028	BCMOE BCLM Mar2005 m
VOCs, VH, F1, LH in Soil by HS GC/MS	7	2023/07/19	2023/07/21	BBY8SOP-00009 / BBY8SOP-00011 / BBY8SOP-00012	BCMOE BCLM Sep2017 m
VOCs, VH, F1, LH in Soil by HS GC/MS	2	2023/07/19	2023/07/22	BBY8SOP-00009 / BBY8SOP-00011 / BBY8SOP-00012	BCMOE BCLM Sep2017 m
Volatile HC-BTEX for Soil (4)	9	N/A	2023/07/24	BBY WI-00033	Auto Calc
OC Pesticides (Selected) & PCB (1, 5)	8	2023/07/24	2023/07/24	CAM SOP-00307	SW846 8081/ 8082 m
OC Pesticides (Selected) & PCB (1, 5)	1	2023/07/26	2023/07/26	CAM SOP-00307	SW846 8081/ 8082 m
OC Pesticides Summed Parameters (1)	9	N/A	2023/07/22	CAM SOP-00307	EPA 8081/8082 m

Sample Matrix: Tissue
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Elements in Tissue by CRC ICPMS - Dry Wt	4	2023/08/17	2023/08/22	BBY7SOP-00021 / BBY7SOP-00002	EPA 6020b R2 m
Moisture in Tissue	4	2023/07/25	2023/08/02	BBY8SOP-00017	BCMOE BCLM Dec2000 m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or

Your Project #: 107739-01
Your C.O.C. #: 699888-02-01, 699888-03-01

Attention: Cara Poulsen

Ausenco Sustainability Inc.
18th Floor, 4730 Kingsway
Burnaby, BC
Canada V5H 0C6

Report Date: 2023/08/22
Report #: R3384017
Version: 4 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C353970
Received: 2023/07/17, 15:10

implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Campobello, 6740 Campobello Road , Mississauga, ON, L5N 2L8
(2) F1 - BTEX calculation is based on the Canada-Wide Standard for Petroleum Hydrocarbons by the CCME = F1 result subtracts the results of BTEX.
(3) The sample is prepaired per the BC MOE Lab Manual "Strong Acid Leachable Metals (SALM) in Soil - Prescriptive", Revision Nov 6, 2015.
(4) VPH = VH - (Benzene + Toluene + Ethylbenzene + m & p-Xylene + o-Xylene + Styrene)
(5) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key

AUTHORIZED REPORT
RAPPORT AUTORISÉ

Bureau Veritas
22 Aug 2023 13:36:13

Please direct all questions regarding this Certificate of Analysis to:
Geraldlyn Gouthro, Key Account Specialist
Email: geraldlyn.gouthro@bureauveritas.com
Phone# (780)577-7173

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Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Raphael Kwan, Senior Manager, BC and Yukon Regions responsible for British Columbia Environmental laboratory operations.

PHYSICAL TESTING (SOIL)

Bureau Veritas ID		BUT383	BUT383	BUT384	BUT385	BUT386	BUT387		
Sampling Date		2023/07/17 09:26	2023/07/17 09:26	2023/07/17 09:39	2023/07/17 10:15	2023/07/17 10:40	2023/07/17 12:15		
COC Number		699888-02-01	699888-02-01	699888-02-01	699888-02-01	699888-02-01	699888-02-01		
	UNITS	**SS0-10**	**SS0-10 Lab-Dup**	**SS30-50**	**MP0-10**	**MP30-50**	**NS0-10**	**RDL**	**QC Batch**
Physical Properties									
Moisture	%	3.6	3.9	3.7	9.1	3.7	9.2	0.30	B039240

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		BUT388	BUT389	BUT390	BUT391		
Sampling Date		2023/07/17 12:20	2023/07/17 13:30	2023/07/17 13:42	2023/07/17		
COC Number		699888-02-01	699888-02-01	699888-02-01	699888-02-01		
	UNITS	**NS30-50**	**BL0-10**	**BL30-50**	**DUP**	**RDL**	**QC Batch**
Physical Properties							
Moisture	%	8.9	7.3	6.1	11	0.30	B039240

RDL = Reportable Detection Limit

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ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Bureau Veritas ID		BUT383	BUT384	BUT385		BUT386		
Sampling Date		2023/07/17 09:26	2023/07/17 09:39	2023/07/17 10:15		2023/07/17 10:40		
COC Number		699888-02-01	699888-02-01	699888-02-01		699888-02-01		
	UNITS	**SS0-10**	**SS30-50**	**MP0-10**	**QC Batch**	**MP30-50**	**RDL**	**QC Batch**
Calculated Parameters								
Aldrin + Dieldrin	ug/g	<0.0020	<0.0020	<0.0020	B046878	<0.0020	0.0020	B046878
Chlordane (Total)	ug/g	<0.0020	<0.0020	<0.0020	B046878	0.0061	0.0020	B046878
DDT + Metabolites	ug/g	<0.0020	<0.0020	<0.0020	B046878	<0.0020	0.0020	B046878
Heptachlor + Heptachlor epoxide	ug/g	<0.0020	<0.0020	<0.0020	B046878	<0.0020	0.0020	B046878
o,p-DDD + p,p-DDD	ug/g	<0.0020	<0.0020	<0.0020	B046878	<0.0020	0.0020	B046878
o,p-DDE + p,p-DDE	ug/g	<0.0020	<0.0020	<0.0020	B046878	<0.0020	0.0020	B046878
o,p-DDT + p,p-DDT	ug/g	<0.0020	<0.0020	<0.0020	B046878	<0.0020	0.0020	B046878
Total Endosulfan	ug/g	<0.0020	<0.0020	<0.0020	B046878	<0.0020	0.0020	B046878
Total PCB	ug/g	<0.015	<0.015	<0.015	B046878	<0.015	0.015	B046878
Pesticides & Herbicides								
Hexachlorocyclopentadiene	ug/g	<0.0050	<0.0050	<0.0050	B050018	<0.0050	0.0050	B050019
Surrogate Recovery (%)								
2,4,5,6-Tetrachloro-m-xylene	%	84	80	84	B050018	89		B050019
Decachlorobiphenyl	%	84	89	92	B050018	99		B050019
RDL = Reportable Detection Limit								

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ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Bureau Veritas ID		BUT387	BUT388	BUT389	BUT390	BUT391		
Sampling Date		2023/07/17 12:15	2023/07/17 12:20	2023/07/17 13:30	2023/07/17 13:42	2023/07/17		
COC Number		699888-02-01	699888-02-01	699888-02-01	699888-02-01	699888-02-01		
	UNITS	**NS0-10**	**NS30-50**	**BL0-10**	**BL30-50**	**DUP**	**RDL**	**QC Batch**
Calculated Parameters								
Aldrin + Dieldrin	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	B046878
Chlordane (Total)	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	B046878
DDT + Metabolites	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	B046878
Heptachlor + Heptachlor epoxide	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	B046878
o,p-DDD + p,p-DDD	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	B046878
o,p-DDE + p,p-DDE	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	B046878
o,p-DDT + p,p-DDT	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	B046878
Total Endosulfan	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	B046878
Total PCB	ug/g	<0.015	<0.015	<0.015	<0.015	<0.015	0.015	B046878
Pesticides & Herbicides								
Hexachlorocyclopentadiene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	B050018
Surrogate Recovery (%)								
2,4,5,6-Tetrachloro-m-xylene	%	80	80	88	76	78		B050018
Decachlorobiphenyl	%	85	87	97	85	84		B050018
RDL = Reportable Detection Limit								

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ELEMENTS BY ATOMIC SPECTROSCOPY - DRY WT (TISSUE)

Bureau Veritas ID		BUT392	BUT392	BUT393	BUT394	BUT395		
Sampling Date		2023/07/17 09:49	2023/07/17 09:49	2023/07/17 13:55	2023/07/17 10:46	2023/07/17 12:31		
COC Number		699888-03-01	699888-03-01	699888-03-01	699888-03-01	699888-03-01		
	UNITS	**SSV-1**	**SSV-1 Lab-Dup**	**BLV-1**	**MPV-1**	**NSV-1**	**RDL**	**QC Batch**
Total Metals by ICPMS								
Total (Dry Wt) Aluminum (Al)	mg/kg	113 (1)	106	149	150	107	1.0	B075266
Total (Dry Wt) Antimony (Sb)	mg/kg	0.0237	0.0258	0.0628	0.0392	0.0286	0.0050	B075266
Total (Dry Wt) Arsenic (As)	mg/kg	0.037	0.037	0.049	0.062	0.042	0.020	B075266
Total (Dry Wt) Barium (Ba)	mg/kg	53.2 (1)	53.3	81.6	105	40.7	0.050	B075266
Total (Dry Wt) Beryllium (Be)	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	B075266
Total (Dry Wt) Bismuth (Bi)	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	B075266
Total (Dry Wt) Boron (B)	mg/kg	12.2	12.3	24.4	22.5	15.1	1.0	B075266
Total (Dry Wt) Cadmium (Cd)	mg/kg	0.0135	0.0123	0.0442	0.0238	0.0216	0.0050	B075266
Total (Dry Wt) Calcium (Ca)	mg/kg	10900	11100	11800	13700	11600	10	B075266
Total (Dry Wt) Chromium (Cr)	mg/kg	0.34	0.31	0.39	0.56	0.33	0.10	B075266
Total (Dry Wt) Cobalt (Co)	mg/kg	0.058	0.055	0.098	0.086	0.052	0.020	B075266
Total (Dry Wt) Copper (Cu)	mg/kg	3.93	3.95	7.81	6.13	5.51	0.050	B075266
Total (Dry Wt) Iron (Fe)	mg/kg	176	169	215	260	203	5.0	B075266
Total (Dry Wt) Lead (Pb)	mg/kg	0.109	0.116	0.149	0.813	0.187	0.010	B075266
Total (Dry Wt) Magnesium (Mg)	mg/kg	2680	2730	4210	5680	3070	5.0	B075266
Total (Dry Wt) Manganese (Mn)	mg/kg	157 (1)	159	216	180	165	0.050	B075266
Total (Dry Wt) Mercury (Hg)	mg/kg	<0.010	<0.010	<0.010	0.011	<0.010	0.010	B075266
Total (Dry Wt) Molybdenum (Mo)	mg/kg	1.78 (1)	1.79	0.212	2.43	1.43	0.020	B075266
Total (Dry Wt) Nickel (Ni)	mg/kg	0.886	0.870	2.95	1.62	1.23	0.050	B075266
Total (Dry Wt) Phosphorus (P)	mg/kg	1400	1400	1830	1820	1650	10	B075266
Total (Dry Wt) Potassium (K)	mg/kg	11800 (1)	11700	10800	12600	8280	10	B075266
Total (Dry Wt) Selenium (Se)	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	B075266
Total (Dry Wt) Silver (Ag)	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	B075266
Total (Dry Wt) Sodium (Na)	mg/kg	25	23	38	30	27	10	B075266
Total (Dry Wt) Strontium (Sr)	mg/kg	25.5 (1)	25.9	42.9	88.6	48.6	0.050	B075266
Total (Dry Wt) Thallium (Tl)	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	B075266
Total (Dry Wt) Tin (Sn)	mg/kg	<0.10	<0.10	0.10	0.10	0.14	0.10	B075266
Total (Dry Wt) Titanium (Ti)	mg/kg	5.52 (1)	4.90	7.32	7.24	4.78	0.50	B075266
Total (Dry Wt) Uranium (U)	mg/kg	0.0036	0.0034	0.0037	0.0035	0.0073	0.0020	B075266
Total (Dry Wt) Vanadium (V)	mg/kg	0.21	0.21	0.30	0.28	<0.20	0.20	B075266
Total (Dry Wt) Zinc (Zn)	mg/kg	11.7	11.6	35.5	22.5	24.0	0.20	B075266

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate
(1) Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results.

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PHYSICAL TESTING (TISSUE)

Bureau Veritas ID		BUT392	BUT393	BUT394	BUT395		
Sampling Date		2023/07/17 09:49	2023/07/17 13:55	2023/07/17 10:46	2023/07/17 12:31		
COC Number		699888-03-01	699888-03-01	699888-03-01	699888-03-01		
	UNITS	**SSV-1**	**BLV-1**	**MPV-1**	**NSV-1**	**RDL**	**QC Batch**
Physical Properties							
Moisture	%	52	58	62	55	0.30	B046576
RDL = Reportable Detection Limit							

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CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		BUT383	BUT384	BUT385	BUT386	BUT387	BUT388		
Sampling Date		2023/07/17 09:26	2023/07/17 09:39	2023/07/17 10:15	2023/07/17 10:40	2023/07/17 12:15	2023/07/17 12:20		
COC Number		699888-02-01	699888-02-01	699888-02-01	699888-02-01	699888-02-01	699888-02-01		
	UNITS	**SS0-10**	**SS30-50**	**MP0-10**	**MP30-50**	**NS0-10**	**NS30-50**	**RDL**	**QC Batch**
Physical Properties									
Soluble (2:1) pH	pH	5.55	5.64	6.41	6.59	6.52	6.53	N/A	B042137
Total Metals by ICPMS									
Total Aluminum (Al)	mg/kg	17700	17700	7870	11300	17600	17000	100	B042131
Total Antimony (Sb)	mg/kg	0.19	0.25	0.30	0.21	0.34	0.33	0.10	B042131
Total Arsenic (As)	mg/kg	6.31	6.41	3.29	5.10	7.78	6.64	0.20	B042131
Total Barium (Ba)	mg/kg	77.6	76.2	147	91.8	84.7	74.2	0.10	B042131
Total Beryllium (Be)	mg/kg	0.30	0.28	<0.20	<0.20	0.27	0.23	0.20	B042131
Total Bismuth (Bi)	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	B042131
Total Boron (B)	mg/kg	2.8	2.7	3.5	2.5	3.2	2.9	1.0	B042131
Total Cadmium (Cd)	mg/kg	0.146	0.206	0.215	0.137	0.228	0.205	0.050	B042131
Total Calcium (Ca)	mg/kg	2110	2280	6460	3590	4240	3640	100	B042131
Total Chromium (Cr)	mg/kg	25.8	31.6	24.6	21.2	31.0	32.1	0.50	B042131
Total Cobalt (Co)	mg/kg	6.84	7.15	6.06	5.86	7.98	7.20	0.10	B042131
Total Copper (Cu)	mg/kg	12.6	12.3	22.4	22.7	32.1	25.8	0.50	B042131
Total Iron (Fe)	mg/kg	19700	19700	14700	16300	21000	19600	100	B042131
Total Lead (Pb)	mg/kg	6.16	6.15	10.5	54.9	40.6	31.4	0.10	B042131
Total Lithium (Li)	mg/kg	8.51	8.87	6.71	7.64	9.78	10.3	0.50	B042131
Total Magnesium (Mg)	mg/kg	3950	4040	5040	5010	4930	4270	100	B042131
Total Manganese (Mn)	mg/kg	570	541	266	287	564	543	0.20	B042131
Total Mercury (Hg)	mg/kg	0.080	0.068	<0.050	<0.050	0.055	0.052	0.050	B042131
Total Molybdenum (Mo)	mg/kg	0.45	0.43	0.56	0.55	0.60	0.49	0.10	B042131
Total Nickel (Ni)	mg/kg	24.5	25.0	24.8	21.2	26.7	24.1	0.50	B042131
Total Phosphorus (P)	mg/kg	1780	1710	968	847	1380	1420	10	B042131
Total Potassium (K)	mg/kg	282	291	433	478	417	396	100	B042131
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	B042131
Total Silver (Ag)	mg/kg	0.084	0.082	<0.050	<0.050	0.106	0.097	0.050	B042131
Total Sodium (Na)	mg/kg	<100	<100	157	129	141	116	100	B042131
Total Strontium (Sr)	mg/kg	10.6	10.3	33.9	15.7	21.6	17.7	0.10	B042131
Total Thallium (Tl)	mg/kg	0.078	0.077	<0.050	<0.050	0.072	0.069	0.050	B042131
Total Tin (Sn)	mg/kg	0.35	0.31	1.25	0.51	0.47	0.57	0.10	B042131
Total Titanium (Ti)	mg/kg	719	772	497	615	670	718	1.0	B042131

RDL = Reportable Detection Limit
N/A = Not Applicable

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CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		BUT383	BUT384	BUT385	BUT386	BUT387	BUT388		
Sampling Date		2023/07/17 09:26	2023/07/17 09:39	2023/07/17 10:15	2023/07/17 10:40	2023/07/17 12:15	2023/07/17 12:20		
COC Number		699888-02-01	699888-02-01	699888-02-01	699888-02-01	699888-02-01	699888-02-01		
	UNITS	**SS0-10**	**SS30-50**	**MP0-10**	**MP30-50**	**NS0-10**	**NS30-50**	**RDL**	**QC Batch**
Total Tungsten (W)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	B042131
Total Uranium (U)	mg/kg	0.465	0.516	0.340	0.280	0.387	0.398	0.050	B042131
Total Vanadium (V)	mg/kg	50.1	50.9	34.2	39.1	50.0	48.5	1.0	B042131
Total Zinc (Zn)	mg/kg	53.3	53.3	68.9	52.3	107	95.3	1.0	B042131
Total Zirconium (Zr)	mg/kg	1.24	1.45	0.69	1.05	1.07	0.94	0.50	B042131
RDL = Reportable Detection Limit									

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		BUT389	BUT390	BUT391		
Sampling Date		2023/07/17 13:30	2023/07/17 13:42	2023/07/17		
COC Number		699888-02-01	699888-02-01	699888-02-01		
	UNITS	**BL0-10**	**BL30-50**	**DUP**	**RDL**	**QC Batch**
Physical Properties						
Soluble (2:1) pH	pH	5.46	5.59	6.52	N/A	B042137
Total Metals by ICPMS						
Total Aluminum (Al)	mg/kg	17200	18400	17800	100	B042131
Total Antimony (Sb)	mg/kg	0.26	0.26	0.34	0.10	B042131
Total Arsenic (As)	mg/kg	4.53	3.83	7.47	0.20	B042131
Total Barium (Ba)	mg/kg	58.7	56.1	99.8	0.10	B042131
Total Beryllium (Be)	mg/kg	0.23	0.22	0.25	0.20	B042131
Total Bismuth (Bi)	mg/kg	<0.10	<0.10	<0.10	0.10	B042131
Total Boron (B)	mg/kg	2.2	2.0	3.3	1.0	B042131
Total Cadmium (Cd)	mg/kg	0.090	0.085	0.222	0.050	B042131
Total Calcium (Ca)	mg/kg	1750	1710	4980	100	B042131
Total Chromium (Cr)	mg/kg	24.8	25.8	32.2	0.50	B042131
Total Cobalt (Co)	mg/kg	6.32	7.01	8.10	0.10	B042131
Total Copper (Cu)	mg/kg	11.9	14.1	31.0	0.50	B042131
Total Iron (Fe)	mg/kg	18500	18300	21000	100	B042131
Total Lead (Pb)	mg/kg	8.42	5.24	40.5	0.10	B042131
Total Lithium (Li)	mg/kg	8.84	8.72	10.1	0.50	B042131
Total Magnesium (Mg)	mg/kg	3110	3930	5370	100	B042131
Total Manganese (Mn)	mg/kg	365	286	577	0.20	B042131
Total Mercury (Hg)	mg/kg	0.060	0.057	0.055	0.050	B042131
Total Molybdenum (Mo)	mg/kg	0.36	0.39	0.57	0.10	B042131
Total Nickel (Ni)	mg/kg	24.2	29.0	27.8	0.50	B042131
Total Phosphorus (P)	mg/kg	842	746	1450	10	B042131
Total Potassium (K)	mg/kg	241	257	423	100	B042131
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	0.50	B042131
Total Silver (Ag)	mg/kg	0.068	0.069	0.095	0.050	B042131
Total Sodium (Na)	mg/kg	<100	<100	152	100	B042131
Total Strontium (Sr)	mg/kg	9.07	9.61	28.8	0.10	B042131
Total Thallium (Tl)	mg/kg	0.073	0.063	0.075	0.050	B042131
Total Tin (Sn)	mg/kg	0.41	0.36	0.60	0.10	B042131
Total Titanium (Ti)	mg/kg	781	818	803	1.0	B042131

RDL = Reportable Detection Limit
N/A = Not Applicable

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CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		BUT389	BUT390	BUT391		
Sampling Date		2023/07/17 13:30	2023/07/17 13:42	2023/07/17		
COC Number		699888-02-01	699888-02-01	699888-02-01		
	UNITS	**BL0-10**	**BL30-50**	**DUP**	**RDL**	**QC Batch**
Total Tungsten (W)	mg/kg	<0.50	<0.50	<0.50	0.50	B042131
Total Uranium (U)	mg/kg	0.259	0.285	0.372	0.050	B042131
Total Vanadium (V)	mg/kg	47.2	46.3	52.2	1.0	B042131
Total Zinc (Zn)	mg/kg	46.4	45.4	106	1.0	B042131
Total Zirconium (Zr)	mg/kg	2.21	3.05	0.79	0.50	B042131
RDL = Reportable Detection Limit						

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CCME&CSR VOC/F1/VPH IN SOIL (SOIL)

Bureau Veritas ID		BUT383			BUT383			BUT384		
Sampling Date		2023/07/17 09:26			2023/07/17 09:26			2023/07/17 09:39		
COC Number		699888-02-01			699888-02-01			699888-02-01		
	UNITS	**SS0-10**	**RDL**	**QC Batch**	**SS0-10 Lab-Dup**	**RDL**	**QC Batch**	**SS30-50**	**RDL**	**QC Batch**
Calculated Parameters										
VPH (VH6 to 10 - BTEX)	mg/kg	<10	10	B037917				<10	10	B037917
Volatiles										
F1 (C6-C10)	mg/kg	<10	10	B042729	<10	10	B042729	<10	10	B042729
VH C6-C10	mg/kg	<10	10	B042729	<10	10	B042729	<10	10	B042729
1,1,1,2-tetrachloroethane	mg/kg	<0.020	0.020	B042729	<0.020	0.020	B042729	<0.020	0.020	B042729
1,1,1-trichloroethane	mg/kg	<0.020	0.020	B042729	<0.020	0.020	B042729	<0.020	0.020	B042729
1,1,2,2-tetrachloroethane	mg/kg	<0.020	0.020	B042729	<0.020	0.020	B042729	<0.020	0.020	B042729
1,1,2-trichloroethane	mg/kg	<0.020	0.020	B042729	<0.020	0.020	B042729	<0.020	0.020	B042729
1,1-dichloroethane	mg/kg	<0.025	0.025	B042729	<0.025	0.025	B042729	<0.025	0.025	B042729
1,1-dichloroethene	mg/kg	<0.025	0.025	B042729	<0.025	0.025	B042729	<0.025	0.025	B042729
1,2,3-trichlorobenzene	mg/kg	<0.030	0.030	B042729	<0.030	0.030	B042729	<0.030	0.030	B042729
1,2,4-trichlorobenzene	mg/kg	<0.030	0.030	B042729	<0.030	0.030	B042729	<0.030	0.030	B042729
1,2-dibromoethane	mg/kg	<0.020	0.020	B042729	<0.020	0.020	B042729	<0.020	0.020	B042729
1,2-dichlorobenzene	mg/kg	<0.020	0.020	B042729	<0.020	0.020	B042729	<0.020	0.020	B042729
1,2-dichloroethane	mg/kg	<0.020	0.020	B042729	<0.020	0.020	B042729	<0.020	0.020	B042729
1,2-dichloropropane	mg/kg	<0.020	0.020	B042729	<0.020	0.020	B042729	<0.020	0.020	B042729
1,3,5-trimethylbenzene	mg/kg	<0.20	0.20	B042729	<0.20	0.20	B042729	<0.20	0.20	B042729
1,3-dichlorobenzene	mg/kg	<0.020	0.020	B042729	<0.020	0.020	B042729	<0.020	0.020	B042729
1,4-dichlorobenzene	mg/kg	<0.020	0.020	B042729	<0.020	0.020	B042729	<0.020	0.020	B042729
Benzene	mg/kg	<0.0050	0.0050	B042729	<0.0050	0.0050	B042729	<0.0050	0.0050	B042729
Bromobenzene	mg/kg	<0.20	0.20	B042729	<0.20	0.20	B042729	<0.20	0.20	B042729
Bromodichloromethane	mg/kg	<0.050	0.050	B042729	<0.050	0.050	B042729	<0.050	0.050	B042729
Bromoform	mg/kg	<0.050	0.050	B042729	<0.050	0.050	B042729	<0.050	0.050	B042729
Bromomethane	mg/kg	<0.30	0.30	B042729	<0.30	0.30	B042729	<0.30	0.30	B042729
Carbon tetrachloride	mg/kg	<0.020	0.020	B042729	<0.020	0.020	B042729	<0.020	0.020	B042729
Chlorobenzene	mg/kg	<0.020	0.020	B042729	<0.020	0.020	B042729	<0.020	0.020	B042729
Dibromochloromethane	mg/kg	<0.050	0.050	B042729	<0.050	0.050	B042729	<0.050	0.050	B042729
Chloroethane	mg/kg	<0.10	0.10	B042729	<0.10	0.10	B042729	<0.10	0.10	B042729
Chloroform	mg/kg	<0.020	0.020	B042729	<0.020	0.020	B042729	<0.020	0.020	B042729
Chloromethane	mg/kg	<0.050	0.050	B042729	<0.050	0.050	B042729	<0.050	0.050	B042729
cis-1,2-dichloroethene	mg/kg	<0.030	0.030	B042729	<0.030	0.030	B042729	<0.030	0.030	B042729

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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CCME&CSR VOC/F1/VPH IN SOIL (SOIL)

Bureau Veritas ID		BUT383			BUT383			BUT384		
Sampling Date		2023/07/17 09:26			2023/07/17 09:26			2023/07/17 09:39		
COC Number		699888-02-01			699888-02-01			699888-02-01		
	UNITS	**SS0-10**	**RDL**	**QC Batch**	**SS0-10 Lab-Dup**	**RDL**	**QC Batch**	**SS30-50**	**RDL**	**QC Batch**
cis-1,3-dichloropropene	mg/kg	<0.020	0.020	B042729	<0.020	0.020	B042729	<0.020	0.020	B042729
Dichloromethane	mg/kg	<0.080	0.080	B042729	<0.080	0.080	B042729	<0.080	0.080	B042729
Ethylbenzene	mg/kg	<0.010	0.010	B042729	<0.010	0.010	B042729	<0.010	0.010	B042729
Hexachlorobutadiene	mg/kg	<0.20	0.20	B042729	<0.20	0.20	B042729	<0.20	0.20	B042729
Isopropylbenzene	mg/kg	<0.20	0.20	B042729	<0.20	0.20	B042729	<0.20	0.20	B042729
Methyl-tert-butylether (MTBE)	mg/kg	<0.10	0.10	B042729	<0.10	0.10	B042729	<0.10	0.10	B042729
Styrene	mg/kg	<0.030	0.030	B042729	<0.030	0.030	B042729	<0.030	0.030	B042729
Tetrachloroethene	mg/kg	<0.010	0.010	B042729	<0.010	0.010	B042729	<0.010	0.010	B042729
Toluene	mg/kg	<0.050	0.050	B042729	<0.050	0.050	B042729	<0.050	0.050	B042729
trans-1,2-dichloroethene	mg/kg	<0.030	0.030	B042729	<0.030	0.030	B042729	<0.030	0.030	B042729
trans-1,3-dichloropropene	mg/kg	<0.020	0.020	B042729	<0.020	0.020	B042729	<0.020	0.020	B042729
Trichloroethene	mg/kg	<0.0090	0.0090	B042729	<0.0090	0.0090	B042729	<0.0090	0.0090	B042729
Trichlorofluoromethane	mg/kg	<0.20	0.20	B042729	<0.20	0.20	B042729	<0.20	0.20	B042729
Vinyl chloride	mg/kg	<0.040	0.040	B042729	<0.040	0.040	B042729	<0.040	0.040	B042729
m & p-Xylene	mg/kg	<0.040	0.040	B042729	<0.040	0.040	B042729	<0.040	0.040	B042729
o-Xylene	mg/kg	<0.040	0.040	B042729	<0.040	0.040	B042729	<0.040	0.040	B042729
Xylenes (Total)	mg/kg	<0.040	0.040	B042729	<0.040	0.040	B042729	<0.040	0.040	B042729
Calculated Parameters										
F1 (C6-C10) - BTEX	mg/kg	<10	10	B037934				<10	10	B037934
Surrogate Recovery (%)										
1,4-Difluorobenzene (sur.)	%	97		B042729	97		B042729	96		B042729
4-Bromofluorobenzene (sur.)	%	88		B042729	86		B042729	85		B042729
D10-o-Xylene (sur.)	%	106		B042729	107		B042729	103		B042729
D4-1,2-Dichloroethane (sur.)	%	103		B042729	102		B042729	103		B042729

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

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CCME&CSR VOC/F1/VPH IN SOIL (SOIL)

Bureau Veritas ID		BUT385	BUT386	BUT387	BUT388	BUT389	BUT390		
Sampling Date		2023/07/17 10:15	2023/07/17 10:40	2023/07/17 12:15	2023/07/17 12:20	2023/07/17 13:30	2023/07/17 13:42		
COC Number		699888-02-01	699888-02-01	699888-02-01	699888-02-01	699888-02-01	699888-02-01		
	UNITS	**MP0-10**	**MP30-50**	**NS0-10**	**NS30-50**	**BL0-10**	**BL30-50**	**RDL**	**QC Batch**
Calculated Parameters									
VPH (VH6 to 10 - BTEX)	mg/kg	<10	<10	<10	<10	<10	<10	10	B037917
Volatiles									
F1 (C6-C10)	mg/kg	<10	<10	<10	<10	<10	<10	10	B042729
VH C6-C10	mg/kg	<10	<10	<10	<10	<10	<10	10	B042729
1,1,1,2-tetrachloroethane	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	B042729
1,1,1-trichloroethane	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	B042729
1,1,2,2-tetrachloroethane	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	B042729
1,1,2-trichloroethane	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	B042729
1,1-dichloroethane	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	B042729
1,1-dichloroethene	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	B042729
1,2,3-trichlorobenzene	mg/kg	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	0.030	B042729
1,2,4-trichlorobenzene	mg/kg	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	0.030	B042729
1,2-dibromoethane	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	B042729
1,2-dichlorobenzene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	B042729
1,2-dichloroethane	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	B042729
1,2-dichloropropane	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	B042729
1,3,5-trimethylbenzene	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	B042729
1,3-dichlorobenzene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	B042729
1,4-dichlorobenzene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	B042729
Benzene	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	B042729
Bromobenzene	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	B042729
Bromodichloromethane	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	B042729
Bromoform	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	B042729
Bromomethane	mg/kg	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	0.30	B042729
Carbon tetrachloride	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	B042729
Chlorobenzene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	B042729
Dibromochloromethane	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	B042729
Chloroethane	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	B042729
Chloroform	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	B042729
Chloromethane	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	B042729
cis-1,2-dichloroethene	mg/kg	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	0.030	B042729
cis-1,3-dichloropropene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	B042729

RDL = Reportable Detection Limit

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

CCME&CSR VOC/F1/VPH IN SOIL (SOIL)

Bureau Veritas ID		BUT385	BUT386	BUT387	BUT388	BUT389	BUT390		
Sampling Date		2023/07/17 10:15	2023/07/17 10:40	2023/07/17 12:15	2023/07/17 12:20	2023/07/17 13:30	2023/07/17 13:42		
COC Number		699888-02-01	699888-02-01	699888-02-01	699888-02-01	699888-02-01	699888-02-01		
	UNITS	**MP0-10**	**MP30-50**	**NS0-10**	**NS30-50**	**BL0-10**	**BL30-50**	**RDL**	**QC Batch**
Dichloromethane	mg/kg	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.080	B042729
Ethylbenzene	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	B042729
Hexachlorobutadiene	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	B042729
Isopropylbenzene	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	B042729
Methyl-tert-butylether (MTBE)	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	B042729
Styrene	mg/kg	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	0.030	B042729
Tetrachloroethene	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	B042729
Toluene	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	B042729
trans-1,2-dichloroethene	mg/kg	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	0.030	B042729
trans-1,3-dichloropropene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	B042729
Trichloroethene	mg/kg	<0.0090	<0.0090	<0.0090	<0.0090	<0.0090	<0.0090	0.0090	B042729
Trichlorofluoromethane	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	B042729
Vinyl chloride	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	B042729
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	B042729
o-Xylene	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	B042729
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	B042729
Calculated Parameters									
F1 (C6-C10) - BTEX	mg/kg	<10	<10	<10	<10	<10	<10	10	B037934
Surrogate Recovery (%)									
1,4-Difluorobenzene (sur.)	%	97	97	97	96	97	96		B042729
4-Bromofluorobenzene (sur.)	%	85	86	87	84	87	84		B042729
D10-o-Xylene (sur.)	%	102	101	105	108	108	101		B042729
D4-1,2-Dichloroethane (sur.)	%	105	104	104	104	103	103		B042729
RDL = Reportable Detection Limit									

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

CCME&CSR VOC/F1/VPH IN SOIL (SOIL)

Bureau Veritas ID		BUT391		
Sampling Date		2023/07/17		
COC Number		699888-02-01		
	UNITS	**DUP**	**RDL**	**QC Batch**
Calculated Parameters				
VPH (VH6 to 10 - BTEX)	mg/kg	<10	10	B037917
Volatiles				
F1 (C6-C10)	mg/kg	<10	10	B042729
VH C6-C10	mg/kg	<10	10	B042729
1,1,1,2-tetrachloroethane	mg/kg	<0.020	0.020	B042729
1,1,1-trichloroethane	mg/kg	<0.020	0.020	B042729
1,1,2,2-tetrachloroethane	mg/kg	<0.020	0.020	B042729
1,1,2-trichloroethane	mg/kg	<0.020	0.020	B042729
1,1-dichloroethane	mg/kg	<0.025	0.025	B042729
1,1-dichloroethene	mg/kg	<0.025	0.025	B042729
1,2,3-trichlorobenzene	mg/kg	<0.030	0.030	B042729
1,2,4-trichlorobenzene	mg/kg	<0.030	0.030	B042729
1,2-dibromoethane	mg/kg	<0.020	0.020	B042729
1,2-dichlorobenzene	mg/kg	<0.020	0.020	B042729
1,2-dichloroethane	mg/kg	<0.020	0.020	B042729
1,2-dichloropropane	mg/kg	<0.020	0.020	B042729
1,3,5-trimethylbenzene	mg/kg	<0.20	0.20	B042729
1,3-dichlorobenzene	mg/kg	<0.020	0.020	B042729
1,4-dichlorobenzene	mg/kg	<0.020	0.020	B042729
Benzene	mg/kg	<0.0050	0.0050	B042729
Bromobenzene	mg/kg	<0.20	0.20	B042729
Bromodichloromethane	mg/kg	<0.050	0.050	B042729
Bromoform	mg/kg	<0.050	0.050	B042729
Bromomethane	mg/kg	<0.30	0.30	B042729
Carbon tetrachloride	mg/kg	<0.020	0.020	B042729
Chlorobenzene	mg/kg	<0.020	0.020	B042729
Dibromochloromethane	mg/kg	<0.050	0.050	B042729
Chloroethane	mg/kg	<0.10	0.10	B042729
Chloroform	mg/kg	<0.020	0.020	B042729
Chloromethane	mg/kg	<0.050	0.050	B042729
cis-1,2-dichloroethene	mg/kg	<0.030	0.030	B042729
cis-1,3-dichloropropene	mg/kg	<0.020	0.020	B042729
RDL = Reportable Detection Limit				

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CCME&CSR VOC/F1/VPH IN SOIL (SOIL)

Bureau Veritas ID		BUT391		
Sampling Date		2023/07/17		
COC Number		699888-02-01		
	UNITS	**DUP**	**RDL**	**QC Batch**
Dichloromethane	mg/kg	<0.080	0.080	B042729
Ethylbenzene	mg/kg	<0.010	0.010	B042729
Hexachlorobutadiene	mg/kg	<0.20	0.20	B042729
Isopropylbenzene	mg/kg	<0.20	0.20	B042729
Methyl-tert-butylether (MTBE)	mg/kg	<0.10	0.10	B042729
Styrene	mg/kg	<0.030	0.030	B042729
Tetrachloroethene	mg/kg	<0.010	0.010	B042729
Toluene	mg/kg	<0.050	0.050	B042729
trans-1,2-dichloroethene	mg/kg	<0.030	0.030	B042729
trans-1,3-dichloropropene	mg/kg	<0.020	0.020	B042729
Trichloroethene	mg/kg	<0.0090	0.0090	B042729
Trichlorofluoromethane	mg/kg	<0.20	0.20	B042729
Vinyl chloride	mg/kg	<0.040	0.040	B042729
m & p-Xylene	mg/kg	<0.040	0.040	B042729
o-Xylene	mg/kg	<0.040	0.040	B042729
Xylenes (Total)	mg/kg	<0.040	0.040	B042729
Calculated Parameters				
F1 (C6-C10) - BTEX	mg/kg	<10	10	B037934
Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	96		B042729
4-Bromofluorobenzene (sur.)	%	84		B042729
D10-o-Xylene (sur.)	%	103		B042729
D4-1,2-Dichloroethane (sur.)	%	103		B042729
RDL = Reportable Detection Limit				

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GENERAL COMMENTS

Sample BUT383 [SS0-10] : Sample received was not in compliance with BC CSR and CCME sampling requirements for VOC/BTEX/F1/VPH in soil.

Sample BUT384 [SS30-50] : Sample received was not in compliance with BC CSR and CCME sampling requirements for VOC/BTEX/F1/VPH in soil.

Sample BUT385 [MP0-10] : Sample received was not in compliance with BC CSR and CCME sampling requirements for VOC/BTEX/F1/VPH in soil.

Sample BUT386 [MP30-50] : Sample received was not in compliance with BC CSR and CCME sampling requirements for VOC/BTEX/F1/VPH in soil.

Sample BUT387 [NS0-10] : Sample received was not in compliance with BC CSR and CCME sampling requirements for VOC/BTEX/F1/VPH in soil.

Sample BUT388 [NS30-50] : Sample received was not in compliance with BC CSR and CCME sampling requirements for VOC/BTEX/F1/VPH in soil.

Sample BUT389 [BL0-10] : Sample received was not in compliance with BC CSR and CCME sampling requirements for VOC/BTEX/F1/VPH in soil.

Sample BUT390 [BL30-50] : Sample received was not in compliance with BC CSR and CCME sampling requirements for VOC/BTEX/F1/VPH in soil.

Sample BUT391 [DUP] : Sample received was not in compliance with BC CSR and CCME sampling requirements for VOC/BTEX/F1/VPH in soil.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B042729	1,4-Difluorobenzene (sur.)	2023/07/21	100	50 - 140	99	50 - 140	97	%				
B042729	4-Bromofluorobenzene (sur.)	2023/07/21	111	50 - 140	97	50 - 140	85	%				
B042729	D10-o-Xylene (sur.)	2023/07/21	95	50 - 140	73	50 - 140	98	%				
B042729	D4-1,2-Dichloroethane (sur.)	2023/07/21	126	50 - 140	115	50 - 140	100	%				
B050018	2,4,5,6-Tetrachloro-m-xylene	2023/07/24	86	50 - 130	86	50 - 130	84	%				
B050018	Decachlorobiphenyl	2023/07/24	97	50 - 130	108	50 - 130	102	%				
B050019	2,4,5,6-Tetrachloro-m-xylene	2023/07/26	112	50 - 130	89	50 - 130	90	%				
B050019	Decachlorobiphenyl	2023/07/26	140 (1)	50 - 130	116	50 - 130	118	%				
B039240	Moisture	2023/07/20					<0.30	%	8.0	20		
B042131	Total Aluminum (Al)	2023/07/21	NC	75 - 125	95	75 - 125	<100	mg/kg	2.1	40	88	70 - 130
B042131	Total Antimony (Sb)	2023/07/21	92	75 - 125	99	75 - 125	<0.10	mg/kg	19	30	99	70 - 130
B042131	Total Arsenic (As)	2023/07/21	101	75 - 125	101	75 - 125	<0.20	mg/kg	4.4	30	91	70 - 130
B042131	Total Barium (Ba)	2023/07/21	111	75 - 125	100	75 - 125	<0.10	mg/kg	4.0	40	98	70 - 130
B042131	Total Beryllium (Be)	2023/07/21	99	75 - 125	100	75 - 125	<0.20	mg/kg	NC	30	75	70 - 130
B042131	Total Bismuth (Bi)	2023/07/21	95	75 - 125	93	75 - 125	<0.10	mg/kg				
B042131	Total Boron (B)	2023/07/21	98	75 - 125	100	75 - 125	<1.0	mg/kg	14	30		
B042131	Total Cadmium (Cd)	2023/07/21	101	75 - 125	100	75 - 125	<0.050	mg/kg	9.5	30	99	70 - 130
B042131	Total Calcium (Ca)	2023/07/21	NC	75 - 125	97	75 - 125	<100	mg/kg			92	70 - 130
B042131	Total Chromium (Cr)	2023/07/21	98	75 - 125	99	75 - 125	<0.50	mg/kg	3.8	30	91	70 - 130
B042131	Total Cobalt (Co)	2023/07/21	98	75 - 125	98	75 - 125	<0.10	mg/kg	0.85	30	94	70 - 130
B042131	Total Copper (Cu)	2023/07/21	95	75 - 125	98	75 - 125	<0.50	mg/kg	4.0	30	100	70 - 130
B042131	Total Iron (Fe)	2023/07/21	NC	75 - 125	101	75 - 125	<100	mg/kg	1.5	30	93	70 - 130
B042131	Total Lead (Pb)	2023/07/21	105	75 - 125	105	75 - 125	<0.10	mg/kg	4.1	40	110	70 - 130
B042131	Total Lithium (Li)	2023/07/21	100	75 - 125	98	75 - 125	<0.50	mg/kg	2.9	30	99	70 - 130
B042131	Total Magnesium (Mg)	2023/07/21	NC	75 - 125	97	75 - 125	<100	mg/kg			95	70 - 130
B042131	Total Manganese (Mn)	2023/07/21	NC	75 - 125	99	75 - 125	<0.20	mg/kg	3.2	30	96	70 - 130
B042131	Total Mercury (Hg)	2023/07/21	101	75 - 125	100	75 - 125	<0.050	mg/kg	NC	40	95	70 - 130
B042131	Total Molybdenum (Mo)	2023/07/21	95	75 - 125	93	75 - 125	<0.10	mg/kg	14	40	103	70 - 130
B042131	Total Nickel (Ni)	2023/07/21	97	75 - 125	97	75 - 125	<0.50	mg/kg	1.2	30	101	70 - 130
B042131	Total Phosphorus (P)	2023/07/21	91	75 - 125	99	75 - 125	<10	mg/kg			82	70 - 130
B042131	Total Potassium (K)	2023/07/21	109	75 - 125	98	75 - 125	<100	mg/kg			78	70 - 130
B042131	Total Selenium (Se)	2023/07/21	98	75 - 125	102	75 - 125	<0.50	mg/kg	NC	30		

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B042131	Total Silver (Ag)	2023/07/21	92	75 - 125	89	75 - 125	<0.050	mg/kg	NC	40	101	70 - 130
B042131	Total Sodium (Na)	2023/07/21	109	75 - 125	98	75 - 125	<100	mg/kg			86	70 - 130
B042131	Total Strontium (Sr)	2023/07/21	108	75 - 125	101	75 - 125	<0.10	mg/kg	2.1	40	102	70 - 130
B042131	Total Thallium (Tl)	2023/07/21	96	75 - 125	94	75 - 125	<0.050	mg/kg	2.5	30	84	70 - 130
B042131	Total Tin (Sn)	2023/07/21	102	75 - 125	100	75 - 125	<0.10	mg/kg	3.2	40	90	70 - 130
B042131	Total Titanium (Ti)	2023/07/21	NC	75 - 125	103	75 - 125	<1.0	mg/kg	5.6	40		
B042131	Total Tungsten (W)	2023/07/21	89	75 - 125	101	75 - 125	<0.50	mg/kg	NC	40		
B042131	Total Uranium (U)	2023/07/21	100	75 - 125	99	75 - 125	<0.050	mg/kg	4.1	30	92	70 - 130
B042131	Total Vanadium (V)	2023/07/21	99	75 - 125	98	75 - 125	<1.0	mg/kg	1.5	30	95	70 - 130
B042131	Total Zinc (Zn)	2023/07/21	96	75 - 125	98	75 - 125	<1.0	mg/kg	2.1	30	101	70 - 130
B042131	Total Zirconium (Zr)	2023/07/21	114	75 - 125	98	75 - 125	<0.50	mg/kg				
B042137	Soluble (2:1) pH	2023/07/21			100	97 - 103			0.55	N/A		
B042729	1,1,1,2-tetrachloroethane	2023/07/21	111	50 - 140	87	60 - 130	<0.020	mg/kg	NC	50		
B042729	1,1,1-trichloroethane	2023/07/21	105	50 - 140	88	60 - 130	<0.020	mg/kg	NC	50		
B042729	1,1,2,2-tetrachloroethane	2023/07/21	107	50 - 140	92	60 - 130	<0.020	mg/kg	NC	50		
B042729	1,1,2-trichloroethane	2023/07/21	107	50 - 140	88	60 - 130	<0.020	mg/kg	NC	50		
B042729	1,1-dichloroethane	2023/07/21	111	50 - 140	96	60 - 130	<0.025	mg/kg	NC	50		
B042729	1,1-dichloroethene	2023/07/21	103	50 - 140	90	60 - 130	<0.025	mg/kg	NC	50		
B042729	1,2,3-trichlorobenzene	2023/07/21	100	50 - 140	86	60 - 130	<0.030	mg/kg	NC	50		
B042729	1,2,4-trichlorobenzene	2023/07/21	114	50 - 140	96	60 - 130	<0.030	mg/kg	NC	50		
B042729	1,2-dibromoethane	2023/07/21	111	50 - 140	90	60 - 130	<0.020	mg/kg	NC	50		
B042729	1,2-dichlorobenzene	2023/07/21	116	50 - 140	95	60 - 130	<0.020	mg/kg	NC	50		
B042729	1,2-dichloroethane	2023/07/21	93	50 - 140	78	60 - 130	<0.020	mg/kg	NC	50		
B042729	1,2-dichloropropane	2023/07/21	115	50 - 140	96	60 - 130	<0.020	mg/kg	NC	50		
B042729	1,3,5-trimethylbenzene	2023/07/21	108	50 - 140	90	60 - 130	<0.20	mg/kg	NC	50		
B042729	1,3-dichlorobenzene	2023/07/21	118	50 - 140	95	60 - 130	<0.020	mg/kg	NC	50		
B042729	1,4-dichlorobenzene	2023/07/21	114	50 - 140	93	60 - 130	<0.020	mg/kg	NC	50		
B042729	Benzene	2023/07/21	103	50 - 140	87	60 - 130	<0.0050	mg/kg	NC	50		
B042729	Bromobenzene	2023/07/21	108	50 - 140	89	60 - 130	<0.20	mg/kg	NC	50		
B042729	Bromodichloromethane	2023/07/21	108	50 - 140	89	60 - 130	<0.050	mg/kg	NC	50		
B042729	Bromoform	2023/07/21	114	50 - 140	95	60 - 130	<0.050	mg/kg	NC	50		
B042729	Bromomethane	2023/07/21	78	50 - 140	63	50 - 140	<0.30	mg/kg	NC	50		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B042729	Carbon tetrachloride	2023/07/21	109	50 - 140	89	60 - 130	<0.020	mg/kg	NC	50		
B042729	Chlorobenzene	2023/07/21	108	50 - 140	85	60 - 130	<0.020	mg/kg	NC	50		
B042729	Chloroethane	2023/07/21	81	50 - 140	69	50 - 140	<0.10	mg/kg	NC	50		
B042729	Chloroform	2023/07/21	107	50 - 140	90	60 - 130	<0.020	mg/kg	NC	50		
B042729	Chloromethane	2023/07/21	66	50 - 140	86	50 - 140	<0.050	mg/kg	NC	50		
B042729	cis-1,2-dichloroethene	2023/07/21	108	50 - 140	92	60 - 130	<0.030	mg/kg	NC	50		
B042729	cis-1,3-dichloropropene	2023/07/21	107	50 - 140	89	50 - 140	<0.020	mg/kg	NC	50		
B042729	Dibromochloromethane	2023/07/21	109	50 - 140	88	60 - 130	<0.050	mg/kg	NC	50		
B042729	Dichloromethane	2023/07/21	98	50 - 140	86	60 - 130	<0.080	mg/kg	NC	50		
B042729	Ethylbenzene	2023/07/21	109	50 - 140	88	60 - 130	<0.010	mg/kg	NC	50		
B042729	F1 (C6-C10)	2023/07/21			90	60 - 130	<10	mg/kg	NC	50		
B042729	Hexachlorobutadiene	2023/07/21	123	50 - 140	107	50 - 130	<0.20	mg/kg	NC	50		
B042729	Isopropylbenzene	2023/07/21	110	50 - 140	90	60 - 130	<0.20	mg/kg	NC	50		
B042729	m & p-Xylene	2023/07/21	112	50 - 140	90	60 - 130	<0.040	mg/kg	NC	50		
B042729	Methyl-tert-butylether (MTBE)	2023/07/21	97	50 - 140	89	60 - 130	<0.10	mg/kg	NC	50		
B042729	o-Xylene	2023/07/21	110	50 - 140	88	60 - 130	<0.040	mg/kg	NC	50		
B042729	Styrene	2023/07/21	117	50 - 140	93	60 - 130	<0.030	mg/kg	NC	50		
B042729	Tetrachloroethene	2023/07/21	108	50 - 140	85	60 - 130	<0.010	mg/kg	NC	50		
B042729	Toluene	2023/07/21	105	50 - 140	86	60 - 130	<0.050	mg/kg	NC	50		
B042729	trans-1,2-dichloroethene	2023/07/21	105	50 - 140	89	60 - 130	<0.030	mg/kg	NC	50		
B042729	trans-1,3-dichloropropene	2023/07/21	99	50 - 140	82	50 - 140	<0.020	mg/kg	NC	50		
B042729	Trichloroethene	2023/07/21	105	50 - 140	86	60 - 130	<0.0090	mg/kg	NC	50		
B042729	Trichlorofluoromethane	2023/07/21	106	50 - 140	85	60 - 130	<0.20	mg/kg	NC	50		
B042729	VH C6-C10	2023/07/21			92	70 - 130	<10	mg/kg	NC	50		
B042729	Vinyl chloride	2023/07/21	114	50 - 140	94	50 - 140	<0.040	mg/kg	NC	50		
B042729	Xylenes (Total)	2023/07/21					<0.040	mg/kg	NC	50		
B046576	Moisture	2023/08/02							0.57	20		
B050018	Hexachlorocyclopentadiene	2023/07/24	47	30 - 130	79	30 - 130	<0.0050	ug/g	2.4	50		
B050019	Hexachlorocyclopentadiene	2023/07/26	24 (2)	30 - 130	64	30 - 130	<0.0050	ug/g	30	50		
B075266	Total (Dry Wt) Aluminum (Al)	2023/08/22	187 (3)	80 - 120	108	80 - 120	<1.0	mg/kg	6.6	40		
B075266	Total (Dry Wt) Antimony (Sb)	2023/08/22	104	80 - 120	105	80 - 120	<0.0050	mg/kg	8.6	40		
B075266	Total (Dry Wt) Arsenic (As)	2023/08/22	111	80 - 120	105	80 - 120	<0.020	mg/kg	0.24	40	93	42 - 199

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B075266	Total (Dry Wt) Barium (Ba)	2023/08/22	36 (3)	80 - 120	106	80 - 120	<0.050	mg/kg	0.35	40		
B075266	Total (Dry Wt) Beryllium (Be)	2023/08/22	98	80 - 120	97	80 - 120	<0.010	mg/kg	NC	40		
B075266	Total (Dry Wt) Bismuth (Bi)	2023/08/22	103	80 - 120	106	80 - 120	<0.010	mg/kg	NC	40		
B075266	Total (Dry Wt) Boron (B)	2023/08/22	102	80 - 120	99	80 - 120	<1.0	mg/kg	0.82	40	97	75 - 125
B075266	Total (Dry Wt) Cadmium (Cd)	2023/08/22	102	80 - 120	102	80 - 120	<0.0050	mg/kg	9.8	40	96	75 - 125
B075266	Total (Dry Wt) Calcium (Ca)	2023/08/22	95	80 - 120	109	80 - 120	<10	mg/kg	1.9	60	96	75 - 125
B075266	Total (Dry Wt) Chromium (Cr)	2023/08/22	104	80 - 120	106	80 - 120	<0.10	mg/kg	9.8	40		
B075266	Total (Dry Wt) Cobalt (Co)	2023/08/22	96	80 - 120	102	80 - 120	<0.020	mg/kg	5.3	40	85	75 - 125
B075266	Total (Dry Wt) Copper (Cu)	2023/08/22	96	80 - 120	104	80 - 120	<0.050	mg/kg	0.51	40	92	75 - 125
B075266	Total (Dry Wt) Iron (Fe)	2023/08/22	100	80 - 120	113	80 - 120	<5.0	mg/kg	4.1	40		
B075266	Total (Dry Wt) Lead (Pb)	2023/08/22	104	80 - 120	106	80 - 120	<0.010	mg/kg	6.9	40		
B075266	Total (Dry Wt) Magnesium (Mg)	2023/08/22	111	80 - 120	102	80 - 120	<5.0	mg/kg	2.0	40		
B075266	Total (Dry Wt) Manganese (Mn)	2023/08/22	329 (3)	80 - 120	106	80 - 120	<0.050	mg/kg	1.5	40	98	75 - 125
B075266	Total (Dry Wt) Mercury (Hg)	2023/08/22	105	80 - 120	107	80 - 120	<0.010	mg/kg	NC	40	95	75 - 125
B075266	Total (Dry Wt) Molybdenum (Mo)	2023/08/22	136 (3)	80 - 120	110	80 - 120	<0.020	mg/kg	0.59	40		
B075266	Total (Dry Wt) Nickel (Ni)	2023/08/22	100	80 - 120	104	80 - 120	<0.050	mg/kg	1.8	40	83	75 - 125
B075266	Total (Dry Wt) Phosphorus (P)	2023/08/22	116	80 - 120	102	80 - 120	<10	mg/kg	0.44	40	101	75 - 125
B075266	Total (Dry Wt) Potassium (K)	2023/08/22	77 (3)	80 - 120	102	80 - 120	<10	mg/kg	0.82	40	93	75 - 125
B075266	Total (Dry Wt) Selenium (Se)	2023/08/22	111	80 - 120	102	80 - 120	<0.050	mg/kg	NC	40	105	75 - 125
B075266	Total (Dry Wt) Silver (Ag)	2023/08/22	102	80 - 120	107	80 - 120	<0.0050	mg/kg	NC	40		
B075266	Total (Dry Wt) Sodium (Na)	2023/08/22	107	80 - 120	110	80 - 120	<10	mg/kg	8.2	40	98	75 - 125
B075266	Total (Dry Wt) Strontium (Sr)	2023/08/22	136 (3)	80 - 120	106	80 - 120	<0.050	mg/kg	1.5	60	101	75 - 125
B075266	Total (Dry Wt) Thallium (Tl)	2023/08/22	105	80 - 120	106	80 - 120	<0.0020	mg/kg	NC	40		
B075266	Total (Dry Wt) Tin (Sn)	2023/08/22	102	80 - 120	106	80 - 120	<0.10	mg/kg	NC	40		
B075266	Total (Dry Wt) Titanium (Ti)	2023/08/22	144 (3)	80 - 120	107	80 - 120	<0.50	mg/kg	12	40		
B075266	Total (Dry Wt) Uranium (U)	2023/08/22	110	80 - 120	111	80 - 120	<0.0020	mg/kg	7.4	40		
B075266	Total (Dry Wt) Vanadium (V)	2023/08/22	105	80 - 120	106	80 - 120	<0.20	mg/kg	0.44	40		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B075266	Total (Dry Wt) Zinc (Zn)	2023/08/22	104	80 - 120	103	80 - 120	<0.20	mg/kg	1.2	40	89	75 - 125

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Surrogate recovery was above the upper control limit due to matrix interference. This may represent a high bias in some results.

(2) Matrix spike exceeds acceptance limits, sample inhomogeneity suspected.

(3) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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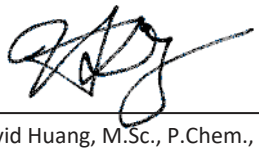
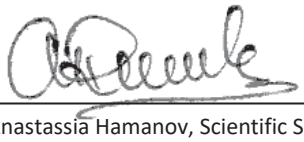
VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:



David Huang, M.Sc., P.Chem., QP, Scientific Services Manager



Anastassia Hamanov, Scientific Specialist

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C353970_COC

INVOICE TO:		Report Information		Project Information	
Company Name	#1480 Ausenco Sustainability Inc.	Company Name	Ausenco	Quotation #	C21876
Contact Name	Accounts Payable	Contact Name	Cara Poulsen	P.O. #	
Address	18th Floor, 4730 Kingsway	Address		Project #	107739-01
	Burnaby BC V5H 0C6			Project Name	
Phone	(604) 669-0424 Ext: 224 Fax: (866) 281-1803	Phone	289-259-3427 Fax:	Site #	
Email:	accounts-payable@hemmera.com	Email	cara.poulsen@ausenco.com	Sampled By	Cara Poulsen

Only
Bottle Order #: 699888

Chain Of Custody Record: C#699888-02-01

Project Manager: Geraldyn Gouthro

Regulatory Criteria:
- [X] CSR
- [X] CCME
- [ ] BC Water Quality
- [ ] Other

Special Instructions

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT: [X]

(will be applied if Rush TAT is not specified).

Standard TAT = 5-7 Working days for most tests.

Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)

1 DAY [ ] 2 Day [ ] 3 Day [ ] Date Required: ______ [ ]

Rush Confirmation Number: ______ (call lab for #)

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

#	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Metals Field Filtered ? (Y / N)	Metals (incl. Phosphorous)	BTEX (incl. ethylbenzene, toluene), VPH, Methyl Isobutyl Ketone	Hexachlorocyclopentadiene	Metal + Moisture (PLANT TISSUE) - Dry Wt							# of Bottles Jars	Comments # of Vials
1	SS0-10		07/17/23	09:26	Soil		X	X	X								2	2
2	SS30-50		↓	09:39	↓		X	X	X								2	2
3	MP0-10			10:15			X	X	X								2	2
4	MP30-50			10:40			X	X	X								2	2
5	NS0-10			12:15			X	X	X								2	2
6	NS30-50			12:20			X	X	X								2	2
7	BL0-10			13:30			X	X	X								2	2
8	BL30-50			13:42			X	X	X								2	2
9	DUP			–			X	X	X								2	2
10																		

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Lab Use Only		
							Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
Cara Poulsen	23/07/17	15:00	EDELANE CAOILI	2023/07/17	15/0		[ ]	20, 17, 17	[ ] Yes [X] No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Bureau Veritas Yellow: Client

ice : yes, frozen

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Only

Bottle Order #:

899888

Chain Of Custody Record

C#899888-01-01

Project Manager

Geraldlyn Gouthro

INVOICE TO:		Report Information		Project Information	
Company Name	#1480 Ausenco Sustainability Inc.	Company Name	Ausenco	Quotation #	C21876
Contact Name	Accounts Payable	Contact Name	Cara Poulsen	P.O. #	
Address	18th Floor, 4730 Kingsway Burnaby BC V5H 0C6	Address		Project #	107739-01
				Project Name	
Phone	(604) 669-0424 Ext: 224 Fax: (866) 281-1803	Phone	289-259-3427 Fax:	Site #	
Email	accounts-payable@hemmera.com	Email	cara.poulsen@ausenco.com	Sampled By	Cara Poulsen

Regulatory Criteria:
- [X] CSR
- [X] CCME
- [ ] BC Water Quality
- [ ] Other

Special Instructions

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT: [X]
(will be applied if Rush TAT is not specified).
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
1 DAY [ ] 2 Day [ ] 3 Day [ ] Date Required: [ ]
Rush Confirmation Number: (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Metals Field Filtered ? (Y / N)	Metals (incl. Phosphorous)	BTEX (incl. ethylbenzene, toluene), VPH, Methyl Isobutyl Ketone	Hexachlorocyclopentadiene	Metal + Moisture (PLANT TISSUE) - Dry Wt.	VOCs, VH, F1, LH in Soil Field Pres. Volatile HC-BTEX				# of Bottles	Comments
1	SS0-10		07/17/23	09:15	Soil						X				1	In methanol
2	SS30-50			09:40							X				1	
3	MP0-10			10:20							X				1	
4	MP30-50			10:39							X				1	
5	NS0-10			12:03							X				1	
6	NS30-50			12:25							X				1	
7	BL0-10			13:28							X				1	
8	BL30-50			13:39							X				1	
9	DUP			-							X				1	
10																

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Lab Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
Cara Poulsen	23/07/17	15:00	EDELANE CADILI	2023/07/17	1510		[ ]	10.1 7.1 7	[ ] Yes [X] No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Bureau Veritas Yellow: Client

ice: yes, frozen

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Bottle Order #: 659888

INVOICE TO:		Report Information		Project Information		Chain Of Custody Record	Project Manager
Company Name	#1480 Ausenco Sustainability Inc.	Company Name	Ausenco	Quotation #	C21876	C#659888-03-01	Geraldlyn Goutnro
Contact Name	Accounts Payable	Contact Name	Cara Poulsen	P.O. #			
Address	18th Floor, 4730 Kingsway	Address		Project #	107739-01		
	Burnaby BC V5H 0C6			Project Name			
Phone	(604) 669-0424 Ext: 224 Fax: (866) 281-1803	Phone	289-259-3427 Fax:	Site #			
Email	accounts-payable@hemmera.com	Email	cara.poulsen@ausenco.com	Sampled By	Cara Poulsen		

Regulatory Criteria:
- [X] CSR
- [X] CCME
- [ ] BC Water Quality
- [ ] Other

Special Instructions

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified): [X]
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Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
1 DAY [ ] 2 Day [ ] 3 Day [ ] Date Required: [ ]
Rush Confirmation Number: (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Metals Field Filtered ? (Y / N)	Metals (incl. Phosphorous)	BTEX (incl. ethylbenzene, toluene), VPH, Methyl Isobutyl Ketone	Hexachlorocyclopentadiene	Metal + Moisture (PLANT TISSUE) - Dry Wt	# of Bottles	Comments
1	SSV-1		07/17/23	09:49	Plant Tissue					X	1	
2	BLV-1		↓	13:55	↓					X	1	
3	HPV-1			10:46						X	1	
4	NSV-1		↓	12:31	↓					X	1	
5												
6												
7												
8												
9												
10												

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Lab Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
Cara Poulsen Cara Poulsen	23/07/17	15:00	EDELANE CAOILI	2023/07/17	1510		[ ]	20 17,17	[ ] Yes [X] No

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ice: yes, frozen

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