metrovancouver

Bottom Ash Data

2025 Week 49

The following analytical report represents bottom ash composite results for week 49 of 2025 (November 30, 2025 to December 6, 2025).

The bottom ash meets the conditions of Metro Vancouver's 2020 Bottom Ash Management Plan and is suitable for disposal.

CERTIFICATE OF ANALYSIS

Work Order	:	**VA25D3011**			
Client	:	**Veolia Environmental Services Canada**	Laboratory	:	ALS Environmental - Vancouver
Contact	:	Brian Graham	Account Manager	:	Gulraj Dhanaua
Address	:	5150 Riverbend Dr. Burnaby British Columbia Canada V3N 4V3	Address	:	8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	:	----	E-mail	:	Gulraj.Dhanaua@alsglobal.com
Project	:	Veolia Weekly Bottom Ash-Suite	Telephone	:	+1 604 253 4188
PO	:	1000497676	Date Samples Received	:	10-Dec-2025 13:10
C-O-C number	:	----	Date Analysis Commenced	:	11-Dec-2025
Sampler	:	----	Issue Date	:	17-Dec-2025 16:24
Site	:	Metro Van Ash Sampling Program			
Quote number	:	VA25-VISI100-001			
No. of samples received	:	12			
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*
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Kim Jensen	Department Manager - Metals	Metals, Burnaby, British Columbia
Robin Weeks	Supervisor - Organics Extractions	Organics, Burnaby, British Columbia

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
%	percent
mg/kg	milligrams per kilogram
mg/L	milligrams per litre
pH units	pH units

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Soil
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA2549-A-1 ----	BA2549-A-2 ----	BA2549-A-3 ----	BA2549-A-4 ----	BA2549-A-5 ----
					Client sampling date / time	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00
						VA25D3011-001	VA25D3011-002	VA25D3011-003	VA25D3011-004	VA25D3011-005
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.25	%		26.9	28.9	26.1	27.9	25.8
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		10.41	10.30	10.29	10.31	10.28
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg		38400	41900	35300	37700	38500
Antimony	7440-36-0	E440/VA	0.10	mg/kg		111	132	121	125	138
Arsenic	7440-38-2	E440/VA	0.10	mg/kg		15.7	23.0	18.1	17.1	18.1
Barium	7440-39-3	E440/VA	0.50	mg/kg		609	615	552	478	638
Beryllium	7440-41-7	E440/VA	0.10	mg/kg		0.42	0.43	0.42	0.38	0.37
Bismuth	7440-69-9	E440/VA	0.20	mg/kg		6.75	7.44	6.50	7.37	7.14
Boron	7440-42-8	E440/VA	5.0	mg/kg		228	199	187	181	220
Cadmium	7440-43-9	E440/VA	0.020	mg/kg		6.25	7.99	7.64	7.44	7.03
Calcium	7440-70-2	E440/VA	50	mg/kg		138000	139000	139000	139000	139000
Chromium	7440-47-3	E440/VA	0.50	mg/kg		188	250	163	166	242
Cobalt	7440-48-4	E440/VA	0.10	mg/kg		83.5	106	115	128	274
Copper	7440-50-8	E440/VA	0.50	mg/kg		2550	2760	1990	7290	2860
Iron	7439-89-6	E440/VA	50	mg/kg		62900	44500	39300	50300	49600
Lead	7439-92-1	E440/VA	0.50	mg/kg		782	375	338	327	380
Lithium	7439-93-2	E440/VA	2.0	mg/kg		37.3	39.9	129	35.3	43.3
Magnesium	7439-95-4	E440/VA	20	mg/kg		13200	13000	12100	12900	12200
Manganese	7439-96-5	E440/VA	1.0	mg/kg		833	979	734	722	728
Mercury	7439-97-6	E510/VA	0.0500	mg/kg		0.138	0.0966	0.0903	0.143	0.0925

Analytical Results

Sub-Matrix: Soil
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA2549-A-1 ----	BA2549-A-2 ----	BA2549-A-3 ----	BA2549-A-4 ----	BA2549-A-5 ----
					Client sampling date / time	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00
						VA25D3011-001	VA25D3011-002	VA25D3011-003	VA25D3011-004	VA25D3011-005
						Result	Result	Result	Result	Result
Metals										
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg		14.8	14.2	14.3	16.3	27.1
Nickel	7440-02-0	E440/VA	0.50	mg/kg		177	1350	296	1380	179
Phosphorus	7723-14-0	E440/VA	50	mg/kg		12700	13700	12000	12900	12300
Potassium	7440-09-7	E440/VA	100	mg/kg		6020	6090	6320	6180	6130
Selenium	7782-49-2	E440/VA	0.20	mg/kg		0.38	0.35	0.30	0.33	0.40
Silver	7440-22-4	E440/VA	0.10	mg/kg		6.54	5.19	5.47	5.58	>39.8
Sodium	7440-23-5	E440/VA	50	mg/kg		17700	18300	17600	17000	17300
Strontium	7440-24-6	E440/VA	0.50	mg/kg		292	362	292	336	308
Sulfur	7704-34-9	E440/VA	1000	mg/kg		11800	12300	13200	12300	14000
Thallium	7440-28-0	E440/VA	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
Tin	7440-31-5	E440/VA	2.0	mg/kg		124	94.2	92.6	157	101
Titanium	7440-32-6	E440/VA	1.0	mg/kg		276	316	278	264	555
Tungsten	7440-33-7	E440/VA	0.50	mg/kg		21.5	33.6	23.9	137	36.1
Uranium	7440-61-1	E440/VA	0.050	mg/kg		2.18	2.08	1.86	1.83	1.91
Vanadium	7440-62-2	E440/VA	0.20	mg/kg		35.5	38.8	36.1	34.8	31.6
Zinc	7440-66-6	E440/VA	2.0	mg/kg		3590	3210	4610	5300	7240
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		3.4	3.3	4.0	3.8	2.0
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units		11.27	11.26	11.32	11.34	11.29
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units		6.00	5.91	5.97	6.26	5.87
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units		2.84	2.84	2.84	2.84	2.84

Analytical Results

Sub-Matrix: Soil
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA2549-A-1 ----	BA2549-A-2 ----	BA2549-A-3 ----	BA2549-A-4 ----	BA2549-A-5 ----
					Client sampling date / time	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00
						VA25D3011-001	VA25D3011-002	VA25D3011-003	VA25D3011-004	VA25D3011-005
						Result	Result	Result	Result	Result
TCLP Metals										
pH, TCLP final	----	EPP444/VA	0.010	pH units		6.47	6.51	6.53	6.62	6.27
Antimony, TCLP	7440-36-0	E444/VA	1.00	mg/L		<1.00	<1.00	<1.00	<1.00	<1.00
Arsenic, TCLP	7440-38-2	E444/VA	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Barium, TCLP	7440-39-3	E444/VA	2.5	mg/L		<2.5	<2.5	<2.5	<2.5	<2.5
Beryllium, TCLP	7440-41-7	E444/VA	0.025	mg/L		<0.025	<0.025	<0.025	<0.025	<0.025
Boron, TCLP	7440-42-8	E444/VA	0.50	mg/L		1.84	1.84	1.88	2.99	1.89
Cadmium, TCLP	7440-43-9	E444/VA	0.050	mg/L		0.593	0.061	0.075	0.242	0.085
Calcium, TCLP	7440-70-2	E444/VA	10	mg/L		1850	1890	1770	1800	1880
Chromium, TCLP	7440-47-3	E444/VA	0.25	mg/L		<0.25	<0.25	<0.25	<0.25	<0.25
Cobalt, TCLP	7440-48-4	E444/VA	0.050	mg/L		0.960	0.975	0.663	1.24	1.18
Copper, TCLP	7440-50-8	E444/VA	0.050	mg/L		1.27	1.13	0.894	0.805	1.01
Iron, TCLP	7439-89-6	E444/VA	5.0	mg/L		<5.0	<5.0	<5.0	<5.0	<5.0
Lead, TCLP	7439-92-1	E444/VA	0.25	mg/L		<0.25	<0.25	<0.25	<0.25	<0.25
Magnesium, TCLP	7439-95-4	E444/VA	2.5	mg/L		133	123	120	121	136
Mercury, TCLP	7439-97-6	E512/VA	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel, TCLP	7440-02-0	E444/VA	0.25	mg/L		0.48	0.46	0.36	0.47	0.60
Selenium, TCLP	7782-49-2	E444/VA	0.10	mg/L		<0.10	<0.10	<0.10	<0.10	<0.10
Silver, TCLP	7440-22-4	E444/VA	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Thallium, TCLP	7440-28-0	E444/VA	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Uranium, TCLP	7440-61-1	E444/VA	0.20	mg/L		<0.20	<0.20	<0.20	<0.20	<0.20
Vanadium, TCLP	7440-62-2	E444/VA	0.15	mg/L		<0.15	<0.15	<0.15	<0.15	<0.15

Analytical Results

Sub-Matrix: Soil
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA2549-A-1 ----	BA2549-A-2 ----	BA2549-A-3 ----	BA2549-A-4 ----	BA2549-A-5 ----
					Client sampling date / time	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00
						VA25D3011-001	VA25D3011-002	VA25D3011-003	VA25D3011-004	VA25D3011-005
						Result	Result	Result	Result	Result
TCLP Metals										
Zinc, TCLP	7440-66-6	E444/VA	0.50	mg/L		15.4	15.7	8.71	11.9	56.0
Zirconium, TCLP	7440-67-7	E444/VA	10	mg/L		<10	<10	<10	<10	<10

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

Analytical Results

Sub-Matrix: Soil
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA2549-A-6 ----	BA2549-A-7 ----	BA2549-A-8 ----	BA2549-A-9 ----	BA2549-A-10 ----
					Client sampling date / time	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00
						VA25D3011-006	VA25D3011-007	VA25D3011-008	VA25D3011-009	VA25D3011-010
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.25	%		27.2	28.7	29.0	26.7	27.4
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		10.24	10.36	10.39	10.35	10.34
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg		38000	43600	38900	36200	37300
Antimony	7440-36-0	E440/VA	0.10	mg/kg		120	117	112	107	242
Arsenic	7440-38-2	E440/VA	0.10	mg/kg		18.7	17.3	16.9	17.2	17.1
Barium	7440-39-3	E440/VA	0.50	mg/kg		621	597	650	588	594
Beryllium	7440-41-7	E440/VA	0.10	mg/kg		0.37	0.43	0.53	0.44	0.40
Bismuth	7440-69-9	E440/VA	0.20	mg/kg		7.62	18.3	6.82	10.7	9.95
Boron	7440-42-8	E440/VA	5.0	mg/kg		202	218	216	224	174
Cadmium	7440-43-9	E440/VA	0.020	mg/kg		8.90	6.68	8.19	7.46	8.05
Calcium	7440-70-2	E440/VA	50	mg/kg		143000	137000	143000	140000	140000

Analytical Results

Sub-Matrix: Soil
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA2549-A-6 ----	BA2549-A-7 ----	BA2549-A-8 ----	BA2549-A-9 ----	BA2549-A-10 ----
					Client sampling date / time	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00
						VA25D3011-006	VA25D3011-007	VA25D3011-008	VA25D3011-009	VA25D3011-010
						Result	Result	Result	Result	Result
Metals										
Chromium	7440-47-3	E440/VA	0.50	mg/kg		137	152	188	209	216
Cobalt	7440-48-4	E440/VA	0.10	mg/kg		39.0	119	65.5	128	60.7
Copper	7440-50-8	E440/VA	0.50	mg/kg		1810	2410	3300	7080	4790
Iron	7439-89-6	E440/VA	50	mg/kg		46800	39700	48700	57800	57800
Lead	7439-92-1	E440/VA	0.50	mg/kg		372	312	605	1900	1080
Lithium	7439-93-2	E440/VA	2.0	mg/kg		31.2	36.1	34.0	40.0	40.4
Magnesium	7439-95-4	E440/VA	20	mg/kg		14200	12500	13100	12800	12600
Manganese	7439-96-5	E440/VA	1.0	mg/kg		831	782	756	906	1000
Mercury	7439-97-6	E510/VA	0.0500	mg/kg		0.101	0.128	0.0938	0.105	0.114
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg		14.1	18.8	19.7	15.7	28.2
Nickel	7440-02-0	E440/VA	0.50	mg/kg		600	236	298	233	222
Phosphorus	7723-14-0	E440/VA	50	mg/kg		13100	11800	11300	11400	13200
Potassium	7440-09-7	E440/VA	100	mg/kg		5870	6200	5840	5840	5930
Selenium	7782-49-2	E440/VA	0.20	mg/kg		0.36	0.33	0.32	0.37	0.36
Silver	7440-22-4	E440/VA	0.10	mg/kg		4.88	7.83	17.1	5.85	5.53
Sodium	7440-23-5	E440/VA	50	mg/kg		16800	17400	17300	17000	17000
Strontium	7440-24-6	E440/VA	0.50	mg/kg		302	297	303	301	295
Sulfur	7704-34-9	E440/VA	1000	mg/kg		12400	12100	11100	10800	11600
Thallium	7440-28-0	E440/VA	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
Tin	7440-31-5	E440/VA	2.0	mg/kg		95.4	220	110	99.0	408
Titanium	7440-32-6	E440/VA	1.0	mg/kg		298	307	308	245	268

Analytical Results

Sub-Matrix: Soil
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA2549-A-6 ----	BA2549-A-7 ----	BA2549-A-8 ----	BA2549-A-9 ----	BA2549-A-10 ----
					Client sampling date / time	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00
						VA25D3011-006	VA25D3011-007	VA25D3011-008	VA25D3011-009	VA25D3011-010
						Result	Result	Result	Result	Result
Metals										
Tungsten	7440-33-7	E440/VA	0.50	mg/kg		30.2	32.4	30.2	25.0	27.7
Uranium	7440-61-1	E440/VA	0.050	mg/kg		2.01	1.96	2.23	2.05	1.91
Vanadium	7440-62-2	E440/VA	0.20	mg/kg		33.0	35.6	33.4	40.8	34.5
Zinc	7440-66-6	E440/VA	2.0	mg/kg		3760	3640	5290	3230	4320
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		3.5	4.3	3.1	3.4	2.6
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units		11.32	11.32	11.36	11.32	11.41
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units		5.89	6.70	6.72	6.60	6.80
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units		2.84	2.92	2.92	2.92	2.92
pH, TCLP final	----	EPP444/VA	0.010	pH units		6.56	6.60	6.57	6.22	6.42
Antimony, TCLP	7440-36-0	E444/VA	1.00	mg/L		<1.00	<1.00	<1.00	<1.00	<1.00
Arsenic, TCLP	7440-38-2	E444/VA	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Barium, TCLP	7440-39-3	E444/VA	2.5	mg/L		<2.5	<2.5	<2.5	<2.5	<2.5
Beryllium, TCLP	7440-41-7	E444/VA	0.025	mg/L		<0.025	<0.025	<0.025	<0.025	<0.025
Boron, TCLP	7440-42-8	E444/VA	0.50	mg/L		1.90	1.89	1.94	1.82	2.00
Cadmium, TCLP	7440-43-9	E444/VA	0.050	mg/L		0.053	0.097	0.371	2.08	1.21
Calcium, TCLP	7440-70-2	E444/VA	10	mg/L		1910	1820	1900	1810	1930
Chromium, TCLP	7440-47-3	E444/VA	0.25	mg/L		<0.25	<0.25	<0.25	<0.25	<0.25
Cobalt, TCLP	7440-48-4	E444/VA	0.050	mg/L		0.719	1.35	1.01	1.41	1.18
Copper, TCLP	7440-50-8	E444/VA	0.050	mg/L		0.831	0.930	0.887	1.71	1.04
Iron, TCLP	7439-89-6	E444/VA	5.0	mg/L		<5.0	<5.0	<5.0	<5.0	<5.0

Analytical Results

Sub-Matrix: Soil
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA2549-A-6 ----	BA2549-A-7 ----	BA2549-A-8 ----	BA2549-A-9 ----	BA2549-A-10 ----
					Client sampling date / time	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00	03-Dec-2025 12:00
						VA25D3011-006	VA25D3011-007	VA25D3011-008	VA25D3011-009	VA25D3011-010
						Result	Result	Result	Result	Result
TCLP Metals										
Lead, TCLP	7439-92-1	E444/VA	0.25	mg/L		<0.25	<0.25	<0.25	<0.25	<0.25
Magnesium, TCLP	7439-95-4	E444/VA	2.5	mg/L		127	132	140	134	144
Mercury, TCLP	7439-97-6	E512/VA	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel, TCLP	7440-02-0	E444/VA	0.25	mg/L		0.51	0.48	0.49	0.75	0.47
Selenium, TCLP	7782-49-2	E444/VA	0.10	mg/L		<0.10	<0.10	<0.10	<0.10	<0.10
Silver, TCLP	7440-22-4	E444/VA	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Thallium, TCLP	7440-28-0	E444/VA	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Uranium, TCLP	7440-61-1	E444/VA	0.20	mg/L		<0.20	<0.20	<0.20	<0.20	<0.20
Vanadium, TCLP	7440-62-2	E444/VA	0.15	mg/L		<0.15	<0.15	<0.15	<0.15	<0.15
Zinc, TCLP	7440-66-6	E444/VA	0.50	mg/L		10.2	17.4	14.1	29.8	16.4
Zirconium, TCLP	7440-67-7	E444/VA	10	mg/L		<10	<10	<10	<10	<10

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

Analytical Results

Sub-Matrix: Soil
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA2549-A-11 ----	BA2549-A-12 ----	----	----	----
					Client sampling date / time	03-Dec-2025 12:00	03-Dec-2025 12:00	----	----	----
						VA25D3011-011	VA25D3011-012	----	----	----
						Result	Result	----	----	----
Physical Tests										
Moisture	----	E144/VA	0.25	%		25.6	26.4	----	----	----
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		10.43	10.20	----	----	----

Analytical Results

Sub-Matrix: Soil
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA2549-A-11 ----	BA2549-A-12 ----	----	----	----
					Client sampling date / time	03-Dec-2025 12:00	03-Dec-2025 12:00	----	----	----
						VA25D3011-011	VA25D3011-012	----	----	----
						Result	Result	----	----	----
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg		41000	40200	----	----	----
Antimony	7440-36-0	E440/VA	0.10	mg/kg		136	108	----	----	----
Arsenic	7440-38-2	E440/VA	0.10	mg/kg		17.4	18.0	----	----	----
Barium	7440-39-3	E440/VA	0.50	mg/kg		580	411	----	----	----
Beryllium	7440-41-7	E440/VA	0.10	mg/kg		0.38	0.38	----	----	----
Bismuth	7440-69-9	E440/VA	0.20	mg/kg		10.8	6.31	----	----	----
Boron	7440-42-8	E440/VA	5.0	mg/kg		191	424	----	----	----
Cadmium	7440-43-9	E440/VA	0.020	mg/kg		7.13	9.31	----	----	----
Calcium	7440-70-2	E440/VA	50	mg/kg		140000	133000	----	----	----
Chromium	7440-47-3	E440/VA	0.50	mg/kg		285	191	----	----	----
Cobalt	7440-48-4	E440/VA	0.10	mg/kg		145	54.3	----	----	----
Copper	7440-50-8	E440/VA	0.50	mg/kg		2370	4140	----	----	----
Iron	7439-89-6	E440/VA	50	mg/kg		46300	50800	----	----	----
Lead	7439-92-1	E440/VA	0.50	mg/kg		306	690	----	----	----
Lithium	7439-93-2	E440/VA	2.0	mg/kg		36.1	36.5	----	----	----
Magnesium	7439-95-4	E440/VA	20	mg/kg		12800	12800	----	----	----
Manganese	7439-96-5	E440/VA	1.0	mg/kg		874	1190	----	----	----
Mercury	7439-97-6	E510/VA	0.0500	mg/kg		0.134	0.469	----	----	----
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg		16.5	16.7	----	----	----
Nickel	7440-02-0	E440/VA	0.50	mg/kg		224	247	----	----	----
Phosphorus	7723-14-0	E440/VA	50	mg/kg		12800	11000	----	----	----

Analytical Results

Sub-Matrix: Soil
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA2549-A-11 ----	BA2549-A-12 ----	----	----	----
					Client sampling date / time	03-Dec-2025 12:00	03-Dec-2025 12:00	----	----	----
						VA25D3011-011	VA25D3011-012	----	----	----
						Result	Result	----	----	----
Metals										
Potassium	7440-09-7	E440/VA	100	mg/kg		6100	5980	----	----	----
Selenium	7782-49-2	E440/VA	0.20	mg/kg		0.38	0.28	----	----	----
Silver	7440-22-4	E440/VA	0.10	mg/kg		6.90	5.62	----	----	----
Sodium	7440-23-5	E440/VA	50	mg/kg		17500	18400	----	----	----
Strontium	7440-24-6	E440/VA	0.50	mg/kg		316	291	----	----	----
Sulfur	7704-34-9	E440/VA	1000	mg/kg		11800	12300	----	----	----
Thallium	7440-28-0	E440/VA	0.050	mg/kg		<0.050	<0.050	----	----	----
Tin	7440-31-5	E440/VA	2.0	mg/kg		102	105	----	----	----
Titanium	7440-32-6	E440/VA	1.0	mg/kg		286	273	----	----	----
Tungsten	7440-33-7	E440/VA	0.50	mg/kg		26.0	20.4	----	----	----
Uranium	7440-61-1	E440/VA	0.050	mg/kg		1.87	1.78	----	----	----
Vanadium	7440-62-2	E440/VA	0.20	mg/kg		37.0	35.2	----	----	----
Zinc	7440-66-6	E440/VA	2.0	mg/kg		3000	5810	----	----	----
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		4.3	4.3	----	----	----
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units		11.39	11.41	----	----	----
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units		7.00	7.03	----	----	----
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units		2.92	2.92	----	----	----
pH, TCLP final	----	EPP444/VA	0.010	pH units		6.28	6.34	----	----	----
Antimony, TCLP	7440-36-0	E444/VA	1.00	mg/L		<1.00	<1.00	----	----	----
Arsenic, TCLP	7440-38-2	E444/VA	1.0	mg/L		<1.0	<1.0	----	----	----

Analytical Results

Sub-Matrix: Soil
(Matrix: Soil/Solid)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA2549-A-11 ----	BA2549-A-12 ----	----	----	----
					Client sampling date / time	03-Dec-2025 12:00	03-Dec-2025 12:00	----	----	----
						VA25D3011-011	VA25D3011-012	----	----	----
						Result	Result	----	----	----
TCLP Metals										
Barium, TCLP	7440-39-3	E444/VA	2.5	mg/L		<2.5	<2.5	----	----	----
Beryllium, TCLP	7440-41-7	E444/VA	0.025	mg/L		<0.025	<0.025	----	----	----
Boron, TCLP	7440-42-8	E444/VA	0.50	mg/L		1.96	2.10	----	----	----
Cadmium, TCLP	7440-43-9	E444/VA	0.050	mg/L		0.096	0.098	----	----	----
Calcium, TCLP	7440-70-2	E444/VA	10	mg/L		1950	1860	----	----	----
Chromium, TCLP	7440-47-3	E444/VA	0.25	mg/L		<0.25	<0.25	----	----	----
Cobalt, TCLP	7440-48-4	E444/VA	0.050	mg/L		1.27	1.52	----	----	----
Copper, TCLP	7440-50-8	E444/VA	0.050	mg/L		0.485	1.14	----	----	----
Iron, TCLP	7439-89-6	E444/VA	5.0	mg/L		<5.0	<5.0	----	----	----
Lead, TCLP	7439-92-1	E444/VA	0.25	mg/L		<0.25	<0.25	----	----	----
Magnesium, TCLP	7439-95-4	E444/VA	2.5	mg/L		133	137	----	----	----
Mercury, TCLP	7439-97-6	E512/VA	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Nickel, TCLP	7440-02-0	E444/VA	0.25	mg/L		0.49	0.50	----	----	----
Selenium, TCLP	7782-49-2	E444/VA	0.10	mg/L		<0.10	<0.10	----	----	----
Silver, TCLP	7440-22-4	E444/VA	0.050	mg/L		<0.050	<0.050	----	----	----
Thallium, TCLP	7440-28-0	E444/VA	1.0	mg/L		<1.0	<1.0	----	----	----
Uranium, TCLP	7440-61-1	E444/VA	0.20	mg/L		<0.20	<0.20	----	----	----
Vanadium, TCLP	7440-62-2	E444/VA	0.15	mg/L		<0.15	<0.15	----	----	----
Zinc, TCLP	7440-66-6	E444/VA	0.50	mg/L		17.8	25.7	----	----	----
Zirconium, TCLP	7440-67-7	E444/VA	10	mg/L		<10	<10	----	----	----

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

Quality Control Interpretive Report

Work Order	:	**VA25D3011**			
Client	:	Veolia Environmental Services Canada	Laboratory	:	ALS Environmental - Vancouver
Contact	:	Brian Graham	Account Manager	:	Gulraj Dhanaua
Address	:	5150 Riverbend Dr. Burnaby BC Canada V3N 4V3	Address	:	8081 Lougheed Highway Burnaby British Columbia Canada V5A 1W9
Telephone	:	----	Telephone	:	+1 604 253 4188
Project	:	Veolia Weekly Bottom Ash-Suite	Date Samples Received	:	10-Dec-2025 13:10
PO	:	1000497676	Issue Date	:	17-Dec-2025 16:24
C-O-C number	:	----			
Sampler	:	----			
Site	:	Metro Van Ash Sampling Program			
Quote number	:	VA25-VISI100-001			
No. of samples received	:	12			
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 Services 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.
- Duplicate outliers occur - please see following pages for full details.
- No Laboratory Control Sample (LCS) outliers occur
- No Laboratory Control Sample Duplicate (LCSD) outliers occur
- No Matrix Spike outliers occur.
- No Matrix Spike Duplicate (MSD) 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.

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	VA25D3011--001	BA2549-A-1	Cadmium	7440-43-9	E440	31.7 %	DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25D3011--001	BA2549-A-1	Lead	7439-92-1	E440	68.5 %	DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25D3011--001	BA2549-A-1	Tungsten	7440-33-7	E440	34.1 %	DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25D3011--001	BA2549-A-1	Vanadium	7440-62-2	E440	37.1 %	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: Soil/Solid

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

Analyte Group : Analytical Method / Container / Client sample ID	ALS Sample ID	QC Lot	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												
BA2549-A-1	001	2385878	E510	03-Dec-2025	17-Dec-2025	28 days	13 days	✓	17-Dec-2025	28 days	0 days	✓
BA2549-A-2	002	2385878	E510	03-Dec-2025	17-Dec-2025	28 days	13 days	✓	17-Dec-2025	28 days	0 days	✓
BA2549-A-3	003	2385878	E510	03-Dec-2025	17-Dec-2025	28 days	13 days	✓	17-Dec-2025	28 days	0 days	✓
BA2549-A-4	004	2385878	E510	03-Dec-2025	17-Dec-2025	28 days	13 days	✓	17-Dec-2025	28 days	0 days	✓
BA2549-A-5	005	2385878	E510	03-Dec-2025	17-Dec-2025	28 days	13 days	✓	17-Dec-2025	28 days	0 days	✓
BA2549-A-6	006	2385878	E510	03-Dec-2025	17-Dec-2025	28 days	13 days	✓	17-Dec-2025	28 days	0 days	✓
BA2549-A-7	007	2385878	E510	03-Dec-2025	17-Dec-2025	28 days	13 days	✓	17-Dec-2025	28 days	0 days	✓
BA2549-A-8	008	2385878	E510	03-Dec-2025	17-Dec-2025	28 days	13 days	✓	17-Dec-2025	28 days	0 days	✓
BA2549-A-9	009	2385878	E510	03-Dec-2025	17-Dec-2025	28 days	13 days	✓	17-Dec-2025	28 days	0 days	✓
BA2549-A-10	010	2385878	E510	03-Dec-2025	17-Dec-2025	28 days	13 days	✓	17-Dec-2025	28 days	0 days	✓
BA2549-A-11	011	2385878	E510	03-Dec-2025	17-Dec-2025	28 days	13 days	✓	17-Dec-2025	28 days	0 days	✓
BA2549-A-12	012	2385878	E510	03-Dec-2025	17-Dec-2025	28 days	13 days	✓	17-Dec-2025	28 days	0 days	✓

Matrix: Soil/Solid

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

Analyte Group : Analytical Method / Container / Client sample ID	ALS Sample ID	QC Lot	Method	Sampling Date	Extraction / Preparation				Analysis			
					Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
						Rec	Actual			Rec	Actual	
Metals : Metals in Soil/Solid by CRC ICPMS												
LDPE bag												
BA2549-A-1	001	2385879	E440	03-Dec-2025	17-Dec-2025	180 days	13 days	✓	17-Dec-2025	180 days	14 days	✓
BA2549-A-2	002	2385879	E440	03-Dec-2025	17-Dec-2025	180 days	13 days	✓	17-Dec-2025	180 days	14 days	✓
BA2549-A-3	003	2385879	E440	03-Dec-2025	17-Dec-2025	180 days	13 days	✓	17-Dec-2025	180 days	14 days	✓
BA2549-A-4	004	2385879	E440	03-Dec-2025	17-Dec-2025	180 days	13 days	✓	17-Dec-2025	180 days	14 days	✓
BA2549-A-5	005	2385879	E440	03-Dec-2025	17-Dec-2025	180 days	13 days	✓	17-Dec-2025	180 days	14 days	✓
BA2549-A-6	006	2385879	E440	03-Dec-2025	17-Dec-2025	180 days	13 days	✓	17-Dec-2025	180 days	14 days	✓
BA2549-A-7	007	2385879	E440	03-Dec-2025	17-Dec-2025	180 days	13 days	✓	17-Dec-2025	180 days	14 days	✓
BA2549-A-8	008	2385879	E440	03-Dec-2025	17-Dec-2025	180 days	13 days	✓	17-Dec-2025	180 days	14 days	✓
BA2549-A-9	009	2385879	E440	03-Dec-2025	17-Dec-2025	180 days	13 days	✓	17-Dec-2025	180 days	14 days	✓
BA2549-A-10	010	2385879	E440	03-Dec-2025	17-Dec-2025	180 days	13 days	✓	17-Dec-2025	180 days	14 days	✓
BA2549-A-11	011	2385879	E440	03-Dec-2025	17-Dec-2025	180 days	13 days	✓	17-Dec-2025	180 days	14 days	✓
BA2549-A-12	012	2385879	E440	03-Dec-2025	17-Dec-2025	180 days	13 days	✓	17-Dec-2025	180 days	14 days	✓
Physical Tests : Moisture Content by Gravimetry												
LDPE bag												
BA2549-A-1	001	2385886	E144	03-Dec-2025	----	----	----		15-Dec-2025	----	----	
BA2549-A-2	002	2385886	E144	03-Dec-2025	----	----	----		15-Dec-2025	----	----	
BA2549-A-3	003	2385886	E144	03-Dec-2025	----	----	----		15-Dec-2025	----	----	
BA2549-A-4	004	2385886	E144	03-Dec-2025	----	----	----		15-Dec-2025	----	----	

Matrix: Soil/Solid

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

Analyte Group : Analytical Method / Container / Client sample ID	ALS Sample ID	QC Lot	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												
BA2549-A-5	005	2385886	E144	03-Dec-2025	----	----	----		15-Dec-2025	----	----	
BA2549-A-6	006	2385886	E144	03-Dec-2025	----	----	----		15-Dec-2025	----	----	
BA2549-A-7	007	2385886	E144	03-Dec-2025	----	----	----		15-Dec-2025	----	----	
BA2549-A-8	008	2385886	E144	03-Dec-2025	----	----	----		15-Dec-2025	----	----	
BA2549-A-9	009	2385886	E144	03-Dec-2025	----	----	----		15-Dec-2025	----	----	
BA2549-A-10	010	2385886	E144	03-Dec-2025	----	----	----		15-Dec-2025	----	----	
BA2549-A-11	011	2385886	E144	03-Dec-2025	----	----	----		15-Dec-2025	----	----	
BA2549-A-12	012	2385886	E144	03-Dec-2025	----	----	----		15-Dec-2025	----	----	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)												
LDPE bag												
BA2549-A-1	001	2385885	E108	03-Dec-2025	17-Dec-2025	30 days	13 days	✓	17-Dec-2025	30 days	13 days	✓
BA2549-A-2	002	2385885	E108	03-Dec-2025	17-Dec-2025	30 days	13 days	✓	17-Dec-2025	30 days	13 days	✓
BA2549-A-3	003	2385885	E108	03-Dec-2025	17-Dec-2025	30 days	13 days	✓	17-Dec-2025	30 days	13 days	✓
BA2549-A-4	004	2385885	E108	03-Dec-2025	17-Dec-2025	30 days	13 days	✓	17-Dec-2025	30 days	13 days	✓
BA2549-A-5	005	2385885	E108	03-Dec-2025	17-Dec-2025	30 days	13 days	✓	17-Dec-2025	30 days	13 days	✓
BA2549-A-6	006	2385885	E108	03-Dec-2025	17-Dec-2025	30 days	13 days	✓	17-Dec-2025	30 days	13 days	✓
BA2549-A-7	007	2385885	E108	03-Dec-2025	17-Dec-2025	30 days	13 days	✓	17-Dec-2025	30 days	13 days	✓
BA2549-A-8	008	2385885	E108	03-Dec-2025	17-Dec-2025	30 days	13 days	✓	17-Dec-2025	30 days	13 days	✓
BA2549-A-9	009	2385885	E108	03-Dec-2025	17-Dec-2025	30 days	13 days	✓	17-Dec-2025	30 days	13 days	✓

Matrix: Soil/Solid

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

Analyte Group : Analytical Method / Container / Client sample ID	ALS Sample ID	QC Lot	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												
BA2549-A-10	010	2385885	E108	03-Dec-2025	17-Dec-2025	30 days	13 days	✓	17-Dec-2025	30 days	13 days	✓
BA2549-A-11	011	2385885	E108	03-Dec-2025	17-Dec-2025	30 days	13 days	✓	17-Dec-2025	30 days	13 days	✓
BA2549-A-12	012	2385885	E108	03-Dec-2025	17-Dec-2025	30 days	13 days	✓	17-Dec-2025	30 days	13 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)												
Glass vial - total (lab preserved)												
BA2549-A-1	001	2384604	E512	03-Dec-2025	14-Dec-2025	28 days	11 days	✓	14-Dec-2025	28 days	11 days	✓
BA2549-A-2	002	2384604	E512	03-Dec-2025	14-Dec-2025	28 days	11 days	✓	14-Dec-2025	28 days	11 days	✓
BA2549-A-3	003	2384604	E512	03-Dec-2025	14-Dec-2025	28 days	11 days	✓	14-Dec-2025	28 days	11 days	✓
BA2549-A-4	004	2384604	E512	03-Dec-2025	14-Dec-2025	28 days	11 days	✓	14-Dec-2025	28 days	11 days	✓
BA2549-A-5	005	2384604	E512	03-Dec-2025	14-Dec-2025	28 days	11 days	✓	14-Dec-2025	28 days	11 days	✓
BA2549-A-6	006	2384604	E512	03-Dec-2025	14-Dec-2025	28 days	11 days	✓	14-Dec-2025	28 days	11 days	✓
BA2549-A-7	007	2387631	E512	03-Dec-2025	16-Dec-2025	28 days	13 days	✓	16-Dec-2025	28 days	13 days	✓
BA2549-A-8	008	2387631	E512	03-Dec-2025	16-Dec-2025	28 days	13 days	✓	16-Dec-2025	28 days	13 days	✓
BA2549-A-9	009	2387631	E512	03-Dec-2025	16-Dec-2025	28 days	13 days	✓	16-Dec-2025	28 days	13 days	✓
BA2549-A-10	010	2387631	E512	03-Dec-2025	16-Dec-2025	28 days	13 days	✓	16-Dec-2025	28 days	13 days	✓
BA2549-A-11	011	2387631	E512	03-Dec-2025	16-Dec-2025	28 days	13 days	✓	16-Dec-2025	28 days	13 days	✓
BA2549-A-12	012	2387631	E512	03-Dec-2025	16-Dec-2025	28 days	13 days	✓	16-Dec-2025	28 days	13 days	✓

Matrix: Soil/Solid

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

Analyte Group : Analytical Method / Container / Client sample ID	ALS Sample ID	QC Lot	Method	Sampling Date	Extraction / Preparation				Analysis			
					Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
						Rec	Actual			Rec	Actual	
TCLP Metals : Metals by CRC ICPMS (TCLP)												
HDPE - total (lab preserved)												
BA2549-A-1	001	2384605	E444	03-Dec-2025	14-Dec-2025	180 days	11 days	✓	15-Dec-2025	180 days	12 days	✓
BA2549-A-2	002	2384605	E444	03-Dec-2025	14-Dec-2025	180 days	11 days	✓	15-Dec-2025	180 days	12 days	✓
BA2549-A-3	003	2384605	E444	03-Dec-2025	14-Dec-2025	180 days	11 days	✓	15-Dec-2025	180 days	12 days	✓
BA2549-A-4	004	2384605	E444	03-Dec-2025	14-Dec-2025	180 days	11 days	✓	15-Dec-2025	180 days	12 days	✓
BA2549-A-5	005	2384605	E444	03-Dec-2025	14-Dec-2025	180 days	11 days	✓	15-Dec-2025	180 days	12 days	✓
BA2549-A-6	006	2384605	E444	03-Dec-2025	14-Dec-2025	180 days	11 days	✓	15-Dec-2025	180 days	12 days	✓
BA2549-A-7	007	2387630	E444	03-Dec-2025	16-Dec-2025	180 days	13 days	✓	17-Dec-2025	180 days	14 days	✓
BA2549-A-8	008	2387630	E444	03-Dec-2025	16-Dec-2025	180 days	13 days	✓	17-Dec-2025	180 days	14 days	✓
BA2549-A-9	009	2387630	E444	03-Dec-2025	16-Dec-2025	180 days	13 days	✓	17-Dec-2025	180 days	14 days	✓
BA2549-A-10	010	2387630	E444	03-Dec-2025	16-Dec-2025	180 days	13 days	✓	17-Dec-2025	180 days	14 days	✓
BA2549-A-11	011	2387630	E444	03-Dec-2025	16-Dec-2025	180 days	13 days	✓	17-Dec-2025	180 days	14 days	✓
BA2549-A-12	012	2387630	E444	03-Dec-2025	16-Dec-2025	180 days	13 days	✓	17-Dec-2025	180 days	14 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)												
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)												
BA2549-A-1	001		EPP444	03-Dec-2025	----	----	----		11-Dec-2025	28 days	8 days	✓
BA2549-A-2	002		EPP444	03-Dec-2025	----	----	----		11-Dec-2025	28 days	8 days	✓
BA2549-A-3	003		EPP444	03-Dec-2025	----	----	----		11-Dec-2025	28 days	8 days	✓
BA2549-A-4	004		EPP444	03-Dec-2025	----	----	----		11-Dec-2025	28 days	8 days	✓

Matrix: Soil/Solid

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

Analyte Group : Analytical Method / Container / Client sample ID	ALS Sample ID	QC Lot	Method	Sampling Date	Extraction / Preparation				Analysis			
					Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
						Rec	Actual			Rec	Actual	
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)												
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)												
BA2549-A-5	005		EPP444	03-Dec-2025	----	----	----		11-Dec-2025	28 days	8 days	✓
BA2549-A-6	006		EPP444	03-Dec-2025	----	----	----		11-Dec-2025	28 days	8 days	✓
BA2549-A-7	007		EPP444	03-Dec-2025	----	----	----		11-Dec-2025	28 days	8 days	✓
BA2549-A-8	008		EPP444	03-Dec-2025	----	----	----		11-Dec-2025	28 days	8 days	✓
BA2549-A-9	009		EPP444	03-Dec-2025	----	----	----		11-Dec-2025	28 days	8 days	✓
BA2549-A-10	010		EPP444	03-Dec-2025	----	----	----		11-Dec-2025	28 days	8 days	✓
BA2549-A-11	011		EPP444	03-Dec-2025	----	----	----		11-Dec-2025	28 days	8 days	✓
BA2549-A-12	012		EPP444	03-Dec-2025	----	----	----		11-Dec-2025	28 days	8 days	✓

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: Soil/Solid

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	Method	QC Lot #	QC	Regular	Actual	Expected	Evaluation
Laboratory Duplicates (DUP)							
pH by Meter (1:2 Soil:Water Extraction)	E108	2385885	1	12	8.3	5.0	✓
Moisture Content by Gravimetry	E144	2385886	1	12	8.3	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	2385879	1	12	8.3	5.0	✓
Metals by CRC ICPMS (TCLP)	E444	2384605	2	12	16.7	5.0	✓
Mercury in Soil/Solid by CVAAS	E510	2385878	1	12	8.3	5.0	✓
Mercury by CVAAS (TCLP)	E512	2384604	2	12	16.7	5.0	✓
Laboratory Control Samples (LCS)							
pH by Meter (1:2 Soil:Water Extraction)	E108	2385885	1	12	8.3	5.0	✓
Moisture Content by Gravimetry	E144	2385886	1	12	8.3	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	2385879	2	12	16.7	10.0	✓
Mercury in Soil/Solid by CVAAS	E510	2385878	2	12	16.7	10.0	✓
Method Blanks (MB)							
Moisture Content by Gravimetry	E144	2385886	1	12	8.3	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	2385879	1	12	8.3	5.0	✓
Metals by CRC ICPMS (TCLP)	E444	2384605	2	12	16.7	5.0	✓
Mercury in Soil/Solid by CVAAS	E510	2385878	1	12	8.3	5.0	✓
Mercury by CVAAS (TCLP)	E512	2384604	2	12	16.7	5.0	✓
Matrix Spikes (MS)							
Metals by CRC ICPMS (TCLP)	E444	2384605	2	12	16.7	5.0	✓
Mercury by CVAAS (TCLP)	E512	2384604	2	12	16.7	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
Mercury by CVAAS (TCLP)	E512 ALS Environmental - Vancouver	Soil/Solid	EPA 1311/245.1 (mod)	An extract produced by the Toxicity Characteristic Leachate Procedure (TCLP) as per EPA 1311 is analyzed by CVAAS.
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.
Metals by CRC ICPMS (TCLP)	E444 ALS Environmental - Vancouver	Soil/Solid	EPA 1311/6020B (mod)	An extract produced by the Toxicity Characteristic Leachate Procedure (TCLP) as per EPA 1311 is analyzed by Collision/Reaction Cell ICPMS.
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.
Moisture Content by Gravimetry	E144 ALS Environmental - Vancouver	Soil/Solid	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.
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.
Preparation Methods	**Method / Lab**	**Matrix**	**Method Reference**	**Method Descriptions**
BrCl Digestion for Total Mercury (TCLP)	EP512 ALS Environmental - Vancouver	Soil/Solid	EPA 1631E (mod)	An extract from a soil/solid waste leachate is digested with BrCl.
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.
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.
Metals Digestion (TCLP)	EP444 ALS Environmental - Vancouver	Soil/Solid	EPA 200.2 (mod)	An extract from the TCLP is digested with HNO3 and HCl to liberate "total recoverable" metals.

TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)	EPP444 ALS Environmental - Vancouver	Soil/Solid	EPA 1311	Preparation of a Toxicity Characteristic Leaching Procedure (TCLP) solid sample involves particle size reduction, homogenization, then determination of appropriate extraction fluid. A measured portion of fresh subsample is placed in an extraction bottle with the appropriate extraction fluid then tumbled in a rotary extractor for 18+/- 2 hours at 23 +/- 2 C. The liquid leachate is filtered to separate from solids then bottled and prepared for analytical tests.

QUALITY CONTROL REPORT

Work Order	: **VA25D3011**	Page	: 1 of 14
Client	: Veolia Environmental Services Canada	Laboratory	: ALS Environmental - Vancouver
Contact	: Brian Graham	Account Manager	: Gulraj Dhanaua
Address	: 5150 Riverbend Dr. Burnaby BC Canada V3N 4V3	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Veolia Weekly Bottom Ash-Suite	Date Samples Received	: 10-Dec-2025 13:10
PO	: 1000497676	Date Analysis Commenced	: 11-Dec-2025
C-O-C number	: ----	Issue Date	: 17-Dec-2025 16:24
Sampler	: ----		
Site	: Metro Van Ash Sampling Program		
Quote number	: VA25-VISI100-001		
No. of samples received	: 12		
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
- Matrix Spike (MS) Report; Recovery 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*
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia
Kim Jensen	Department Manager - Metals	Vancouver Metals, Burnaby, British Columbia
Robin Weeks	Supervisor - Organics Extractions	Vancouver Organics, Burnaby, British Columbia

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Soil/Solid**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 2385885)											
VA25D3011-001	BA2549-A-1	pH (1:2 soil:water)	----	E108	0.10	pH units	10.41	10.38	0.3%	5%	----
Physical Tests (QC Lot: 2385886)											
VA25D3011-001	BA2549-A-1	Moisture	----	E144	0.25	%	26.9	27.9	3.48%	20%	----
Metals (QC Lot: 2385878)											
VA25D3011-001	BA2549-A-1	Mercury	7439-97-6	E510	0.0500	mg/kg	0.138	0.131	0.0072	Diff <2x LOR	----
Metals (QC Lot: 2385879)											
VA25D3011-001	BA2549-A-1	Aluminum	7429-90-5	E440	50	mg/kg	38400	46400	18.9%	40%	----
		Antimony	7440-36-0	E440	0.10	mg/kg	111	109	2.25%	30%	----
		Arsenic	7440-38-2	E440	0.10	mg/kg	15.7	19.5	21.7%	30%	----
		Barium	7440-39-3	E440	0.50	mg/kg	609	653	6.97%	40%	----
		Beryllium	7440-41-7	E440	0.10	mg/kg	0.42	0.43	0.006	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.20	mg/kg	6.75	6.76	0.244%	30%	----
		Boron	7440-42-8	E440	5.0	mg/kg	228	181	22.9%	30%	----
		Cadmium	7440-43-9	E440	0.020	mg/kg	6.25	8.59	31.7%	30%	DUP-H
		Calcium	7440-70-2	E440	50	mg/kg	138000	136000	1.32%	30%	----
		Chromium	7440-47-3	E440	0.50	mg/kg	188	167	11.9%	30%	----
		Cobalt	7440-48-4	E440	0.10	mg/kg	83.5	66.9	22.0%	30%	----
		Copper	7440-50-8	E440	0.50	mg/kg	2550	2250	12.5%	30%	----
		Iron	7439-89-6	E440	50	mg/kg	62900	77900	21.2%	30%	----
		Lead	7439-92-1	E440	0.50	mg/kg	782	383	68.5%	40%	DUP-H
		Lithium	7439-93-2	E440	2.0	mg/kg	37.3	36.8	1.40%	30%	----
		Magnesium	7439-95-4	E440	20	mg/kg	13200	12800	3.48%	30%	----
		Manganese	7439-96-5	E440	1.0	mg/kg	833	871	4.52%	30%	----
		Molybdenum	7439-98-7	E440	0.10	mg/kg	14.8	18.0	19.6%	40%	----
		Nickel	7440-02-0	E440	0.50	mg/kg	177	163	8.17%	30%	----
		Phosphorus	7723-14-0	E440	50	mg/kg	12700	10700	16.8%	30%	----
		Potassium	7440-09-7	E440	100	mg/kg	6020	5550	8.12%	40%	----
		Selenium	7782-49-2	E440	0.20	mg/kg	0.38	0.32	0.06	Diff <2x LOR	----
		Silver	7440-22-4	E440	0.10	mg/kg	6.54	5.89	10.4%	40%	----
		Sodium	7440-23-5	E440	50	mg/kg	17700	16900	4.21%	40%	----

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: 2385879) - continued											
VA25D3011-001	BA2549-A-1	Strontium	7440-24-6	E440	0.50	mg/kg	292	319	8.93%	40%	----
		Sulfur	7704-34-9	E440	1000	mg/kg	11800	11700	0.858%	30%	----
		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	124	139	10.9%	40%	----
		Titanium	7440-32-6	E440	1.0	mg/kg	276	360	26.4%	40%	----
		Tungsten	7440-33-7	E440	0.50	mg/kg	21.5	30.3	34.1%	30%	DUP-H
		Uranium	7440-61-1	E440	0.050	mg/kg	2.18	1.80	19.2%	30%	----
		Vanadium	7440-62-2	E440	0.20	mg/kg	35.5	51.7	37.1%	30%	DUP-H
		Zinc	7440-66-6	E440	2.0	mg/kg	3590	3330	7.55%	30%	----
		Zirconium	7440-67-7	E440	1.0	mg/kg	3.4	3.4	0.07	Diff <2x LOR	----
TCLP Metals (QC Lot: 2384604)											
VA25D3011-001	BA2549-A-1	Mercury, TCLP	7439-97-6	E512	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
TCLP Metals (QC Lot: 2384605)											
VA25D3011-001	BA2549-A-1	Antimony, TCLP	7440-36-0	E444	1.00	mg/L	<1.00	<1.00	0	Diff <2x LOR	----
		Arsenic, TCLP	7440-38-2	E444	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Barium, TCLP	7440-39-3	E444	2.5	mg/L	<2.5	<2.5	0	Diff <2x LOR	----
		Beryllium, TCLP	7440-41-7	E444	0.025	mg/L	<0.025	<0.025	0	Diff <2x LOR	----
		Boron, TCLP	7440-42-8	E444	0.50	mg/L	1.84	1.81	0.03	Diff <2x LOR	----
		Cadmium, TCLP	7440-43-9	E444	0.050	mg/L	0.593	0.567	4.53%	30%	----
		Calcium, TCLP	7440-70-2	E444	10	mg/L	1850	1800	3.10%	30%	----
		Chromium, TCLP	7440-47-3	E444	0.25	mg/L	<0.25	<0.25	0	Diff <2x LOR	----
		Cobalt, TCLP	7440-48-4	E444	0.050	mg/L	0.960	0.944	1.71%	30%	----
		Copper, TCLP	7440-50-8	E444	0.050	mg/L	1.27	1.24	2.24%	30%	----
		Iron, TCLP	7439-89-6	E444	5.0	mg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Lead, TCLP	7439-92-1	E444	0.25	mg/L	<0.25	<0.25	0	Diff <2x LOR	----
		Magnesium, TCLP	7439-95-4	E444	2.5	mg/L	133	120	10.1%	30%	----
		Nickel, TCLP	7440-02-0	E444	0.25	mg/L	0.48	0.46	0.01	Diff <2x LOR	----
		Selenium, TCLP	7782-49-2	E444	0.10	mg/L	<0.10	<0.10	0	Diff <2x LOR	----
		Silver, TCLP	7440-22-4	E444	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Thallium, TCLP	7440-28-0	E444	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Uranium, TCLP	7440-61-1	E444	0.20	mg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Vanadium, TCLP	7440-62-2	E444	0.15	mg/L	<0.15	<0.15	0	Diff <2x LOR	----
		Zinc, TCLP	7440-66-6	E444	0.50	mg/L	15.4	14.9	3.14%	30%	----
		Zirconium, TCLP	7440-67-7	E444	10	mg/L	<10	<10	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*
TCLP Metals (QC Lot: 2387630)											
VA25D3011-007	BA2549-A-7	Antimony, TCLP	7440-36-0	E444	1.00	mg/L	<1.00	<1.00	0	Diff <2x LOR	----
		Arsenic, TCLP	7440-38-2	E444	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Barium, TCLP	7440-39-3	E444	2.5	mg/L	<2.5	<2.5	0	Diff <2x LOR	----
		Beryllium, TCLP	7440-41-7	E444	0.025	mg/L	<0.025	<0.025	0	Diff <2x LOR	----
		Boron, TCLP	7440-42-8	E444	0.50	mg/L	1.89	1.93	0.05	Diff <2x LOR	----
		Cadmium, TCLP	7440-43-9	E444	0.050	mg/L	0.097	0.100	0.003	Diff <2x LOR	----
		Calcium, TCLP	7440-70-2	E444	10	mg/L	1820	1860	2.03%	30%	----
		Chromium, TCLP	7440-47-3	E444	0.25	mg/L	<0.25	<0.25	0	Diff <2x LOR	----
		Cobalt, TCLP	7440-48-4	E444	0.050	mg/L	1.35	1.38	1.90%	30%	----
		Copper, TCLP	7440-50-8	E444	0.050	mg/L	0.930	0.940	1.06%	30%	----
		Iron, TCLP	7439-89-6	E444	5.0	mg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Lead, TCLP	7439-92-1	E444	0.25	mg/L	<0.25	<0.25	0	Diff <2x LOR	----
		Magnesium, TCLP	7439-95-4	E444	2.5	mg/L	132	129	1.81%	30%	----
		Nickel, TCLP	7440-02-0	E444	0.25	mg/L	0.48	0.49	0.007	Diff <2x LOR	----
		Selenium, TCLP	7782-49-2	E444	0.10	mg/L	<0.10	<0.10	0	Diff <2x LOR	----
		Silver, TCLP	7440-22-4	E444	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Thallium, TCLP	7440-28-0	E444	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Uranium, TCLP	7440-61-1	E444	0.20	mg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Vanadium, TCLP	7440-62-2	E444	0.15	mg/L	<0.15	<0.15	0	Diff <2x LOR	----
		Zinc, TCLP	7440-66-6	E444	0.50	mg/L	17.4	17.8	1.88%	30%	----
		Zirconium, TCLP	7440-67-7	E444	10	mg/L	<10	<10	0	Diff <2x LOR	----
TCLP Metals (QC Lot: 2387631)											
VA25D3011-007	BA2549-A-7	Mercury, TCLP	7439-97-6	E512	0.0010	mg/L	<0.0010	<0.0010	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: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 2385886)						
Moisture	----	E144	0.25	%	<0.25	----
Metals (QCLot: 2385878)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 2385879)						
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	----
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	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 2385879) - continued						
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	----
TCLP Metals (QCLot: 2384604)						
Mercury, TCLP	7439-97-6	E512	0.001	mg/L	<0.0010	----
TCLP Metals (QCLot: 2384605)						
Antimony, TCLP	7440-36-0	E444	0.1	mg/L	<0.10	----
Arsenic, TCLP	7440-38-2	E444	1	mg/L	<1.0	----
Barium, TCLP	7440-39-3	E444	2.5	mg/L	<2.5	----
Beryllium, TCLP	7440-41-7	E444	0.025	mg/L	<0.025	----
Boron, TCLP	7440-42-8	E444	0.5	mg/L	<0.50	----
Cadmium, TCLP	7440-43-9	E444	0.05	mg/L	<0.050	----
Calcium, TCLP	7440-70-2	E444	10	mg/L	<10	----
Chromium, TCLP	7440-47-3	E444	0.25	mg/L	<0.25	----
Cobalt, TCLP	7440-48-4	E444	0.05	mg/L	<0.050	----
Copper, TCLP	7440-50-8	E444	0.05	mg/L	<0.050	----
Iron, TCLP	7439-89-6	E444	5	mg/L	<5.0	----
Lead, TCLP	7439-92-1	E444	0.25	mg/L	<0.25	----
Magnesium, TCLP	7439-95-4	E444	2.5	mg/L	<2.5	----
Nickel, TCLP	7440-02-0	E444	0.25	mg/L	<0.25	----
Selenium, TCLP	7782-49-2	E444	0.1	mg/L	<0.10	----
Silver, TCLP	7440-22-4	E444	0.05	mg/L	<0.050	----
Thallium, TCLP	7440-28-0	E444	1	mg/L	<1.0	----
Uranium, TCLP	7440-61-1	E444	0.2	mg/L	<0.20	----
Vanadium, TCLP	7440-62-2	E444	0.15	mg/L	<0.15	----
Zinc, TCLP	7440-66-6	E444	0.5	mg/L	<0.50	----
Zirconium, TCLP	7440-67-7	E444	10	mg/L	<10	----
TCLP Metals (QCLot: 2387630)						
Antimony, TCLP	7440-36-0	E444	0.1	mg/L	<0.10	----
Arsenic, TCLP	7440-38-2	E444	1	mg/L	<1.0	----
Barium, TCLP	7440-39-3	E444	2.5	mg/L	<2.5	----
Beryllium, TCLP	7440-41-7	E444	0.025	mg/L	<0.025	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
TCLP Metals (QCLot: 2387630) - continued						
Boron, TCLP	7440-42-8	E444	0.5	mg/L	<0.50	----
Cadmium, TCLP	7440-43-9	E444	0.05	mg/L	<0.050	----
Calcium, TCLP	7440-70-2	E444	10	mg/L	<10	----
Chromium, TCLP	7440-47-3	E444	0.25	mg/L	<0.25	----
Cobalt, TCLP	7440-48-4	E444	0.05	mg/L	<0.050	----
Copper, TCLP	7440-50-8	E444	0.05	mg/L	<0.050	----
Iron, TCLP	7439-89-6	E444	5	mg/L	<5.0	----
Lead, TCLP	7439-92-1	E444	0.25	mg/L	<0.25	----
Magnesium, TCLP	7439-95-4	E444	2.5	mg/L	<2.5	----
Nickel, TCLP	7440-02-0	E444	0.25	mg/L	<0.25	----
Selenium, TCLP	7782-49-2	E444	0.1	mg/L	<0.10	----
Silver, TCLP	7440-22-4	E444	0.05	mg/L	<0.050	----
Thallium, TCLP	7440-28-0	E444	1	mg/L	<1.0	----
Uranium, TCLP	7440-61-1	E444	0.2	mg/L	<0.20	----
Vanadium, TCLP	7440-62-2	E444	0.15	mg/L	<0.15	----
Zinc, TCLP	7440-66-6	E444	0.5	mg/L	<0.50	----
Zirconium, TCLP	7440-67-7	E444	10	mg/L	<10	----
TCLP Metals (QCLot: 2387631)						
Mercury, TCLP	7439-97-6	E512	0.001	mg/L	<0.0010	----

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	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2385885)									
pH (1:2 soil:water)	----	E108	----	pH units	6 pH units	99.3	95.0	105	----
Physical Tests (QCLot: 2385886)									
Moisture	----	E144	0.25	%	50 %	99.9	90.0	110	----
Metals (QCLot: 2385878)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	102	80.0	120	----
Metals (QCLot: 2385879)									
Aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	107	80.0	120	----
Antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	107	80.0	120	----
Arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	105	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	102	80.0	120	----
Bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	96.9	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	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	104	80.0	120	----
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	102	80.0	120	----
Iron	7439-89-6	E440	50	mg/kg	100 mg/kg	102	80.0	120	----
Lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	100.0	80.0	120	----
Lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	101	80.0	120	----
Magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	109	80.0	120	----
Manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	105	80.0	120	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	106	80.0	120	----
Nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	103	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	105	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	98.5	80.0	120	----
Sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	106	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	102	80.0	120	----

Sub-Matrix: **Soil/Solid**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 2385879) - continued									
Thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	99.6	80.0	120	----
Tin	7440-31-5	E440	2	mg/kg	50 mg/kg	104	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	100	80.0	120	----
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	102	80.0	120	----
Vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	108	80.0	120	----
Zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	105	80.0	120	----
Zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	105	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Soil/Solid**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
TCLP Metals (QCLot: 2384604)										
VA25D3011-001	BA2549-A-1	Mercury, TCLP	7439-97-6	E512	0.0029 mg/L	0.003 mg/L	95.4	50.0	140	----
TCLP Metals (QCLot: 2384605)										
VA25D3011-001	BA2549-A-1	Antimony, TCLP	7440-36-0	E444	4.69 mg/L	5 mg/L	93.7	50.0	140	----
		Arsenic, TCLP	7440-38-2	E444	4.4 mg/L	5 mg/L	87.9	50.0	140	----
		Barium, TCLP	7440-39-3	E444	12.1 mg/L	12.5 mg/L	96.8	50.0	140	----
		Beryllium, TCLP	7440-41-7	E444	0.228 mg/L	0.25 mg/L	91.1	50.0	140	----
		Boron, TCLP	7440-42-8	E444	9.16 mg/L	10 mg/L	91.6	50.0	140	----
		Cadmium, TCLP	7440-43-9	E444	ND mg/L	----	ND	50.0	140	----
		Calcium, TCLP	7440-70-2	E444	ND mg/L	----	ND	50.0	140	----
		Chromium, TCLP	7440-47-3	E444	1.10 mg/L	1.25 mg/L	88.4	50.0	140	----
		Cobalt, TCLP	7440-48-4	E444	ND mg/L	----	ND	50.0	140	----
		Copper, TCLP	7440-50-8	E444	2.13 mg/L	2.5 mg/L	85.0	50.0	140	----
		Iron, TCLP	7439-89-6	E444	211 mg/L	250 mg/L	84.5	50.0	140	----
		Lead, TCLP	7439-92-1	E444	8.91 mg/L	10 mg/L	89.1	50.0	140	----
		Magnesium, TCLP	7439-95-4	E444	239 mg/L	250 mg/L	95.7	50.0	140	----
		Nickel, TCLP	7440-02-0	E444	2.17 mg/L	2.5 mg/L	86.7	50.0	140	----
		Selenium, TCLP	7782-49-2	E444	4.86 mg/L	5 mg/L	97.2	50.0	140	----
		Silver, TCLP	7440-22-4	E444	0.093 mg/L	0.1 mg/L	93.0	50.0	140	----
		Thallium, TCLP	7440-28-0	E444	4.4 mg/L	5 mg/L	88.2	50.0	140	----
		Uranium, TCLP	7440-61-1	E444	4.67 mg/L	5 mg/L	93.4	50.0	150	----
		Vanadium, TCLP	7440-62-2	E444	0.67 mg/L	0.75 mg/L	89.4	50.0	140	----
		Zinc, TCLP	7440-66-6	E444	ND mg/L	----	ND	50.0	140	----
		Zirconium, TCLP	7440-67-7	E444	0.8 mg/L	1 mg/L	84.4	50.0	150	----
TCLP Metals (QCLot: 2387630)										
VA25D3011-007	BA2549-A-7	Antimony, TCLP	7440-36-0	E444	5.14 mg/L	5 mg/L	103	50.0	140	----
		Arsenic, TCLP	7440-38-2	E444	5.1 mg/L	5 mg/L	102	50.0	140	----
		Barium, TCLP	7440-39-3	E444	13.2 mg/L	12.5 mg/L	106	50.0	140	----
		Beryllium, TCLP	7440-41-7	E444	0.252 mg/L	0.25 mg/L	101	50.0	140	----
		Boron, TCLP	7440-42-8	E444	9.73 mg/L	10 mg/L	97.3	50.0	140	----
		Cadmium, TCLP	7440-43-9	E444	0.245 mg/L	0.25 mg/L	98.2	50.0	140	----
		Calcium, TCLP	7440-70-2	E444	ND mg/L	----	ND	50.0	140	----
		Chromium, TCLP	7440-47-3	E444	1.23 mg/L	1.25 mg/L	98.6	50.0	140	----
		Cobalt, TCLP	7440-48-4	E444	ND mg/L	----	ND	50.0	140	----
		Copper, TCLP	7440-50-8	E444	2.49 mg/L	2.5 mg/L	99.5	50.0	140	----
		Iron, TCLP	7439-89-6	E444	250 mg/L	250 mg/L	100	50.0	140	----
		Lead, TCLP	7439-92-1	E444	9.60 mg/L	10 mg/L	96.0	50.0	140	----
		Magnesium, TCLP	7439-95-4	E444	261 mg/L	250 mg/L	104	50.0	140	----
		Nickel, TCLP	7440-02-0	E444	2.51 mg/L	2.5 mg/L	100	50.0	140	----
		Selenium, TCLP	7782-49-2	E444	4.90 mg/L	5 mg/L	98.0	50.0	140	----

Sub-Matrix: **Soil/Solid**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
TCLP Metals (QCLot: 2387630) - continued										
VA25D3011-007	BA2549-A-7	Silver, TCLP	7440-22-4	E444	0.099 mg/L	0.1 mg/L	99.0	50.0	140	----
		Thallium, TCLP	7440-28-0	E444	4.9 mg/L	5 mg/L	97.8	50.0	140	----
		Uranium, TCLP	7440-61-1	E444	4.98 mg/L	5 mg/L	99.6	50.0	150	----
		Vanadium, TCLP	7440-62-2	E444	0.77 mg/L	0.75 mg/L	103	50.0	140	----
		Zinc, TCLP	7440-66-6	E444	ND mg/L	----	ND	50.0	140	----
		Zirconium, TCLP	7440-67-7	E444	0.8 mg/L	1 mg/L	82.4	50.0	150	----
TCLP Metals (QCLot: 2387631)										
VA25D3011-007	BA2549-A-7	Mercury, TCLP	7439-97-6	E512	0.0028 mg/L	0.003 mg/L	93.0	50.0	140	----

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: 2385878)									
QC-2385878-003	MRCA-21	Mercury	7439-97-6	E510	0.068 mg/kg	100	70.0	130	----
Metals (QCLot: 2385879)									
QC-2385879-003	MRCA-21	Aluminum	7429-90-5	E440	22500 mg/kg	114	70.0	130	----
QC-2385879-003	MRCA-21	Antimony	7440-36-0	E440	24.8 mg/kg	105	70.0	130	----
QC-2385879-003	MRCA-21	Arsenic	7440-38-2	E440	21.2 mg/kg	99.3	70.0	130	----
QC-2385879-003	MRCA-21	Barium	7440-39-3	E440	788 mg/kg	98.8	70.0	130	----
QC-2385879-003	MRCA-21	Beryllium	7440-41-7	E440	1.82 mg/kg	112	70.0	130	----
QC-2385879-003	MRCA-21	Bismuth	7440-69-9	E440	1.78 mg/kg	97.9	70.0	130	----
QC-2385879-003	MRCA-21	Cadmium	7440-43-9	E440	2.15 mg/kg	108	70.0	130	----
QC-2385879-003	MRCA-21	Calcium	7440-70-2	E440	4900 mg/kg	107	70.0	130	----
QC-2385879-003	MRCA-21	Chromium	7440-47-3	E440	56.9 mg/kg	107	70.0	130	----
QC-2385879-003	MRCA-21	Cobalt	7440-48-4	E440	32 mg/kg	107	70.0	130	----
QC-2385879-003	MRCA-21	Copper	7440-50-8	E440	969 mg/kg	105	70.0	130	----
QC-2385879-003	MRCA-21	Iron	7439-89-6	E440	32700 mg/kg	103	70.0	130	----
QC-2385879-003	MRCA-21	Lead	7439-92-1	E440	919 mg/kg	95.3	70.0	130	----
QC-2385879-003	MRCA-21	Lithium	7439-93-2	E440	47.3 mg/kg	116	70.0	130	----
QC-2385879-003	MRCA-21	Magnesium	7439-95-4	E440	7780 mg/kg	112	70.0	130	----
QC-2385879-003	MRCA-21	Manganese	7439-96-5	E440	8640 mg/kg	106	70.0	130	----
QC-2385879-003	MRCA-21	Molybdenum	7439-98-7	E440	25.1 mg/kg	103	70.0	130	----
QC-2385879-003	MRCA-21	Nickel	7440-02-0	E440	1000 mg/kg	105	70.0	130	----
QC-2385879-003	MRCA-21	Phosphorus	7723-14-0	E440	660 mg/kg	107	70.0	130	----
QC-2385879-003	MRCA-21	Potassium	7440-09-7	E440	10800 mg/kg	110	70.0	130	----
QC-2385879-003	MRCA-21	Selenium	7782-49-2	E440	1.04 mg/kg	96.0	60.0	140	----
QC-2385879-003	MRCA-21	Silver	7440-22-4	E440	8.98 mg/kg	101	70.0	130	----
QC-2385879-003	MRCA-21	Sodium	7440-23-5	E440	1770 mg/kg	115	70.0	130	----
QC-2385879-003	MRCA-21	Strontium	7440-24-6	E440	41 mg/kg	105	70.0	130	----
QC-2385879-003	MRCA-21	Sulfur	7704-34-9	E440	3940 mg/kg	92.8	50.0	150	----
QC-2385879-003	MRCA-21	Thallium	7440-28-0	E440	0.907 mg/kg	95.9	70.0	130	----
QC-2385879-003	MRCA-21	Tin	7440-31-5	E440	3.79 mg/kg	101	40.0	160	----
QC-2385879-003	MRCA-21	Titanium	7440-32-6	E440	2790 mg/kg	110	70.0	130	----
QC-2385879-003	MRCA-21	Tungsten	7440-33-7	E440	6.99 mg/kg	107	70.0	130	----
QC-2385879-003	MRCA-21	Uranium	7440-61-1	E440	3.97 mg/kg	91.3	70.0	130	----
QC-2385879-003	MRCA-21	Vanadium	7440-62-2	E440	66.2 mg/kg	109	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: 2385879) - continued									
QC-2385879-003	MRCA-21	Zinc	7440-66-6	E440	828 mg/kg	108	70.0	130	----
QC-2385879-003	MRCA-21	Zirconium	7440-67-7	E440	6.91 mg/kg	99.4	70.0	130	----

ALS Environmental

Chain of Custody / Analytical Request Form

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

COC # _____

Report To		Report Format / Distribution		Service Requested (Rush for routine analysis subject to availability)
Company:	Veolia Canada / Burnaby Waste To Energy Facility	"Veolia Email Distribution List" please		
Contact:	Brian Graham / Darcie Grace			
Address:	5150 Riverbend Drive	Email 1:	Darcie.grace@veolia.com	
	Burnaby BC	Email 2:	lorenzo.ilao@veolia.com	
Phone:	604-521-1025 Fax:	Email 3:	karen.thornquist@veolia.com	Analysis Request
			brent.kirkpatrick@metrovancouver.org	
			Sarah.Wellman@metrovancouver.org	

Invoice To	Same as Report ? Veolia Water Canada	Client / Project Information		Please indicate below Filtered, Preserved or both (F, P, F/P)
Hardcopy of Invoice with Report?		Job #:	Veolia Weekly Bottom Ash - Suite	
Company:	Veolia Water Canada / Burnaby Waste To Energy	PO / AFE:	PO#	
Contact:	Danny George, Purchaser/Darcie Grace, SHE Manager	LSD:	(includes 2:1 pH)	
Address:	5150 Riverbend Drive, Burnaby BC V3N 4V3			
Phone:	604 521 1025 Fax:	Quote #:		
Lab Work Order # (lab use only)		ALS Contact:	Sampler:	

Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	MET-TCLP-VA (all metals, Hg)	MOISTURE		Chrome 6		MET-CSR+FULL-VA (all metals)							Number of Containers
	BA 2549-A-1	03/12/2025	12:00	Soil	X	X				X							1
	BA 2549-A-2	03/12/2025	12:00	Soil	X	X				X							1
	BA 2549-A-3	03/12/2025	12:00	Soil	X	X				X							1
	BA 2549-A-4	03/12/2025	12:00	Soil	X	X				X							1
	BA 2549-A-5	03/12/2025	12:00	Soil	X	X				X							1
	BA 2549-A-6	03/12/2025	12:00	Soil	X	X				X							1
	BA 2549-A-7	03/12/2025	12:00	Soil	X	X				X							1
	BA 2549-A-8	03/12/2025	12:00	Soil	X	X				X							1
	BA 2549-A-9	03/12/2025	12:00	Soil	X	X				X							1
	BA 2549-A-10	03/12/2025	12:00	Soil	X	X				X							1
	BA 2549-A-11	03/12/2025	12:00	Soil	X	X				X							1
	BA 2549-A-12	03/12/2025	12:00	Soil	X	X				X							1

Environmental Division
Vancouver
Work Order Reference
VA25D3011

Telephone : +1 604 253 4188

water Aquatic

* temp. double checked

rm may delay a
es with the Ter
numbers and

NT RELEASE (c

SHIPMENT RECEPTION (lab use only)						SHIPMENT VERIFICATION (lab use only)			
Released by:	Date (dd-mmm-yy)	Time (hh-mm)	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF
	10/12/25	07:30	JC	DEC 10 2025	1310	17 °C				

Bottom Ash Worksheet

Date sample composited (DD/MM/YYYY)	08/Dec/2025
Person doing the sampling	Eduardo Anguiano H.
Total Sample Weight before processing, kg	47.6 Kg.
Weight of Material >3/8", kg	11.9 Kg.
Weight of Material that cannot be processed to <3/8" (metal, wood, etc), kg	0.7 Kg.
Final Total weight of Processed Bottom Ash, kg	35.0 Kg.

Return this form with the filled Weekly Bottom Ash Composite Sample containers

Fill twelve bags with approximately 2000g of mixed bottom ash and label each with "Bottom Ash" and the week the ash composite is from, i.e. "June 9-15, 2019"