metrovancouver

Bottom Ash Data

2025 Week 45

The following analytical report represents bottom ash composite results for week 45 of 2025 (November 2, 2025 to November 8, 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	:	**VA25D0216**			
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	:	12-Nov-2025 11:30
C-O-C number	:	----	Date Analysis Commenced	:	12-Nov-2025
Sampler	:	----	Issue Date	:	19-Nov-2025 17:14
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*
Brieanna Allen	Production/Validation Manager	Organics, Burnaby, British Columbia
Robert Nguyen	Analyst	Metals, Burnaby, British Columbia

General Comments

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

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

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

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

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

Unit	*Description*
%	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	BA 2545-A-1 ----	BA 2545-A-2 ----	BA 2545-A-3 ----	BA 2545-A-4 ----	BA 2545-A-5 ----
					Client sampling date / time	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00
						VA25D0216-001	VA25D0216-002	VA25D0216-003	VA25D0216-004	VA25D0216-005
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.25	%		27.8	27.9	26.6	28.6	29.4
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		10.11	10.10	10.06	10.11	10.06
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg		43100	38900	45700	44500	41100
Antimony	7440-36-0	E440/VA	0.10	mg/kg		110	126	117	134	105
Arsenic	7440-38-2	E440/VA	0.10	mg/kg		11.3	11.0	12.0	13.5	10.5
Barium	7440-39-3	E440/VA	0.50	mg/kg		529	506	553	566	573
Beryllium	7440-41-7	E440/VA	0.10	mg/kg		0.44	0.41	0.38	0.37	0.36
Bismuth	7440-69-9	E440/VA	0.20	mg/kg		16.0	19.8	11.1	11.0	16.2
Boron	7440-42-8	E440/VA	5.0	mg/kg		154	161	155	176	146
Cadmium	7440-43-9	E440/VA	0.020	mg/kg		7.57	16.2	7.71	7.16	9.64
Calcium	7440-70-2	E440/VA	50	mg/kg		137000	140000	142000	124000	130000
Chromium	7440-47-3	E440/VA	0.50	mg/kg		153	175	175	213	193
Cobalt	7440-48-4	E440/VA	0.10	mg/kg		83.5	107	180	43.1	79.6
Copper	7440-50-8	E440/VA	0.50	mg/kg		8450	8160	2400	8150	7570
Iron	7439-89-6	E440/VA	50	mg/kg		52400	52400	66000	81600	78300
Lead	7439-92-1	E440/VA	0.50	mg/kg		355	390	541	2520	2890
Lithium	7439-93-2	E440/VA	2.0	mg/kg		39.3	35.1	36.3	34.1	28.7
Magnesium	7439-95-4	E440/VA	20	mg/kg		14000	14300	14100	13200	13500
Manganese	7439-96-5	E440/VA	1.0	mg/kg		888	1020	1620	978	6560
Mercury	7439-97-6	E510/VA	0.0500	mg/kg		1.58	0.137	0.217	0.162	0.158

Analytical Results

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

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2545-A-1 ----	BA 2545-A-2 ----	BA 2545-A-3 ----	BA 2545-A-4 ----	BA 2545-A-5 ----
					Client sampling date / time	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00
						VA25D0216-001	VA25D0216-002	VA25D0216-003	VA25D0216-004	VA25D0216-005
						Result	Result	Result	Result	Result
Metals										
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg		29.6	33.8	19.3	25.6	17.0
Nickel	7440-02-0	E440/VA	0.50	mg/kg		278	663	322	317	195
Phosphorus	7723-14-0	E440/VA	50	mg/kg		13200	12800	13800	10700	11400
Potassium	7440-09-7	E440/VA	100	mg/kg		6340	6820	6410	6010	6040
Selenium	7782-49-2	E440/VA	0.20	mg/kg		0.35	0.34	0.37	0.34	0.39
Silver	7440-22-4	E440/VA	0.10	mg/kg		7.69	5.79	10.1	4.51	5.96
Sodium	7440-23-5	E440/VA	50	mg/kg		16600	19000	17700	16200	16400
Strontium	7440-24-6	E440/VA	0.50	mg/kg		357	362	332	360	367
Sulfur	7704-34-9	E440/VA	1000	mg/kg		12500	12200	12900	11100	11100
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		125	372	132	133	122
Titanium	7440-32-6	E440/VA	1.0	mg/kg		250	249	268	273	249
Tungsten	7440-33-7	E440/VA	0.50	mg/kg		8.97	13.0	11.7	8.79	8.59
Uranium	7440-61-1	E440/VA	0.050	mg/kg		1.92	1.95	1.93	1.73	1.85
Vanadium	7440-62-2	E440/VA	0.20	mg/kg		26.8	29.1	27.8	26.2	26.8
Zinc	7440-66-6	E440/VA	2.0	mg/kg		15000	3560	3670	3720	4390
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		3.1	2.5	3.0	2.6	2.0
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units		11.11	11.10	11.11	11.07	11.08
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units		3.52	3.23	4.36	3.34	3.29
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units		4.94	4.94	4.94	4.94	4.94

Analytical Results

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

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2545-A-1 ----	BA 2545-A-2 ----	BA 2545-A-3 ----	BA 2545-A-4 ----	BA 2545-A-5 ----
					Client sampling date / time	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00
						VA25D0216-001	VA25D0216-002	VA25D0216-003	VA25D0216-004	VA25D0216-005
						Result	Result	Result	Result	Result
TCLP Metals										
pH, TCLP final	----	EPP444/VA	0.010	pH units		9.40	9.41	9.38	9.44	9.36
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		0.87	0.84	0.92	0.93	0.87
Cadmium, TCLP	7440-43-9	E444/VA	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Calcium, TCLP	7440-70-2	E444/VA	10	mg/L		757	801	803	806	863
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		<0.050	<0.050	<0.050	<0.050	<0.050
Copper, TCLP	7440-50-8	E444/VA	0.050	mg/L		0.494	0.513	0.511	0.509	0.510
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		12.4	12.9	12.9	12.3	19.6
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		<0.25	<0.25	<0.25	<0.25	<0.25
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	BA 2545-A-1 ----	BA 2545-A-2 ----	BA 2545-A-3 ----	BA 2545-A-4 ----	BA 2545-A-5 ----
					Client sampling date / time	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00
						VA25D0216-001	VA25D0216-002	VA25D0216-003	VA25D0216-004	VA25D0216-005
						Result	Result	Result	Result	Result
TCLP Metals										
Zinc, TCLP	7440-66-6	E444/VA	0.50	mg/L		<0.50	<0.50	<0.50	<0.50	<0.50
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	BA 2545-A-6 ----	BA 2545-A-7 ----	BA 2545-A-8 ----	BA 2545-A-9 ----	BA 2545-A-10 ----
					Client sampling date / time	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00
						VA25D0216-006	VA25D0216-007	VA25D0216-008	VA25D0216-009	VA25D0216-010
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.25	%		28.6	27.5	27.0	29.2	29.2
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		10.11	10.11	10.08	10.12	10.11
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg		38500	44700	51000	35300	40400
Antimony	7440-36-0	E440/VA	0.10	mg/kg		111	128	102	115	119
Arsenic	7440-38-2	E440/VA	0.10	mg/kg		10.5	10.9	10.1	11.4	11.1
Barium	7440-39-3	E440/VA	0.50	mg/kg		585	634	634	509	438
Beryllium	7440-41-7	E440/VA	0.10	mg/kg		0.39	0.44	0.35	0.34	0.38
Bismuth	7440-69-9	E440/VA	0.20	mg/kg		41.8	21.4	11.8	14.0	11.1
Boron	7440-42-8	E440/VA	5.0	mg/kg		283	169	212	208	166
Cadmium	7440-43-9	E440/VA	0.020	mg/kg		6.82	5.77	6.55	7.09	6.82
Calcium	7440-70-2	E440/VA	50	mg/kg		144000	139000	137000	135000	136000

Analytical Results

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

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2545-A-6 ----	BA 2545-A-7 ----	BA 2545-A-8 ----	BA 2545-A-9 ----	BA 2545-A-10 ----
					Client sampling date / time	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00
						VA25D0216-006	VA25D0216-007	VA25D0216-008	VA25D0216-009	VA25D0216-010
						Result	Result	Result	Result	Result
Metals										
Chromium	7440-47-3	E440/VA	0.50	mg/kg		162	189	160	200	194
Cobalt	7440-48-4	E440/VA	0.10	mg/kg		102	455	32.0	135	394
Copper	7440-50-8	E440/VA	0.50	mg/kg		3550	2750	1340	2670	2240
Iron	7439-89-6	E440/VA	50	mg/kg		62800	69500	55100	83300	69100
Lead	7439-92-1	E440/VA	0.50	mg/kg		679	6510	290	594	366
Lithium	7439-93-2	E440/VA	2.0	mg/kg		34.1	102	38.7	34.2	36.2
Magnesium	7439-95-4	E440/VA	20	mg/kg		13700	13700	13800	13300	13500
Manganese	7439-96-5	E440/VA	1.0	mg/kg		1290	1180	964	1040	2310
Mercury	7439-97-6	E510/VA	0.0500	mg/kg		0.389	0.108	0.335	0.277	0.236
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg		19.6	23.4	17.4	21.3	25.0
Nickel	7440-02-0	E440/VA	0.50	mg/kg		169	630	110	265	272
Phosphorus	7723-14-0	E440/VA	50	mg/kg		13300	12900	13200	12500	11900
Potassium	7440-09-7	E440/VA	100	mg/kg		6290	6110	6040	5720	5930
Selenium	7782-49-2	E440/VA	0.20	mg/kg		0.46	0.39	0.32	0.41	0.36
Silver	7440-22-4	E440/VA	0.10	mg/kg		5.91	6.36	7.66	5.38	7.50
Sodium	7440-23-5	E440/VA	50	mg/kg		17500	16800	16500	15900	16700
Strontium	7440-24-6	E440/VA	0.50	mg/kg		345	347	317	346	331
Sulfur	7704-34-9	E440/VA	1000	mg/kg		11900	11000	10600	10800	11300
Thallium	7440-28-0	E440/VA	0.050	mg/kg		<0.050	0.064	<0.050	<0.050	<0.050
Tin	7440-31-5	E440/VA	2.0	mg/kg		150	2280	152	126	155
Titanium	7440-32-6	E440/VA	1.0	mg/kg		244	262	330	264	269

Analytical Results

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

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2545-A-6 ----	BA 2545-A-7 ----	BA 2545-A-8 ----	BA 2545-A-9 ----	BA 2545-A-10 ----
					Client sampling date / time	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00
						VA25D0216-006	VA25D0216-007	VA25D0216-008	VA25D0216-009	VA25D0216-010
						Result	Result	Result	Result	Result
Metals										
Tungsten	7440-33-7	E440/VA	0.50	mg/kg		11.6	11.0	12.0	12.0	12.2
Uranium	7440-61-1	E440/VA	0.050	mg/kg		1.98	1.82	1.81	1.72	1.93
Vanadium	7440-62-2	E440/VA	0.20	mg/kg		26.2	30.2	26.7	28.6	27.1
Zinc	7440-66-6	E440/VA	2.0	mg/kg		4000	4480	3250	4940	3670
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		1.5	1.8	1.5	1.6	2.2
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units		11.12	11.07	11.10	11.06	10.98
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units		3.34	3.52	3.46	3.42	3.04
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units		4.94	4.94	4.94	4.94	4.94
pH, TCLP final	----	EPP444/VA	0.010	pH units		9.40	9.37	9.38	9.40	9.42
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		0.84	0.85	0.81	0.84	0.84
Cadmium, TCLP	7440-43-9	E444/VA	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Calcium, TCLP	7440-70-2	E444/VA	10	mg/L		778	811	771	777	792
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		<0.050	<0.050	<0.050	<0.050	<0.050
Copper, TCLP	7440-50-8	E444/VA	0.050	mg/L		0.483	0.499	0.456	0.513	0.500
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	BA 2545-A-6 ----	BA 2545-A-7 ----	BA 2545-A-8 ----	BA 2545-A-9 ----	BA 2545-A-10 ----
					Client sampling date / time	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00	10-Nov-2025 12:00
						VA25D0216-006	VA25D0216-007	VA25D0216-008	VA25D0216-009	VA25D0216-010
						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		15.6	14.7	15.4	15.3	17.1
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		<0.25	<0.25	<0.25	<0.25	<0.25
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		<0.50	<0.50	0.62	<0.50	<0.50
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	BA 2545-A-11 ----	BA 2545-A-12 ----	----	----	----
					Client sampling date / time	10-Nov-2025 12:00	10-Nov-2025 12:00	----	----	----
						VA25D0216-011	VA25D0216-012	----	----	----
						Result	Result	----	----	----
Physical Tests										
Moisture	----	E144/VA	0.25	%		28.1	28.1	----	----	----
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		10.13	10.09	----	----	----

Analytical Results

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

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2545-A-11 ----	BA 2545-A-12 ----	----	----	----
					Client sampling date / time	10-Nov-2025 12:00	10-Nov-2025 12:00	----	----	----
						VA25D0216-011	VA25D0216-012	----	----	----
						Result	Result	----	----	----
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg		45900	50600	----	----	----
Antimony	7440-36-0	E440/VA	0.10	mg/kg		106	109	----	----	----
Arsenic	7440-38-2	E440/VA	0.10	mg/kg		12.4	10.1	----	----	----
Barium	7440-39-3	E440/VA	0.50	mg/kg		552	598	----	----	----
Beryllium	7440-41-7	E440/VA	0.10	mg/kg		0.34	0.39	----	----	----
Bismuth	7440-69-9	E440/VA	0.20	mg/kg		10.9	12.8	----	----	----
Boron	7440-42-8	E440/VA	5.0	mg/kg		148	174	----	----	----
Cadmium	7440-43-9	E440/VA	0.020	mg/kg		8.91	7.04	----	----	----
Calcium	7440-70-2	E440/VA	50	mg/kg		132000	135000	----	----	----
Chromium	7440-47-3	E440/VA	0.50	mg/kg		162	224	----	----	----
Cobalt	7440-48-4	E440/VA	0.10	mg/kg		240	42.4	----	----	----
Copper	7440-50-8	E440/VA	0.50	mg/kg		3830	6380	----	----	----
Iron	7439-89-6	E440/VA	50	mg/kg		62600	73100	----	----	----
Lead	7439-92-1	E440/VA	0.50	mg/kg		1070	7560	----	----	----
Lithium	7439-93-2	E440/VA	2.0	mg/kg		31.7	36.1	----	----	----
Magnesium	7439-95-4	E440/VA	20	mg/kg		14500	13700	----	----	----
Manganese	7439-96-5	E440/VA	1.0	mg/kg		872	1110	----	----	----
Mercury	7439-97-6	E510/VA	0.0500	mg/kg		0.464	0.219	----	----	----
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg		16.0	20.5	----	----	----
Nickel	7440-02-0	E440/VA	0.50	mg/kg		164	280	----	----	----
Phosphorus	7723-14-0	E440/VA	50	mg/kg		10800	11500	----	----	----

Analytical Results

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

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2545-A-11 ----	BA 2545-A-12 ----	----	----	----
					Client sampling date / time	10-Nov-2025 12:00	10-Nov-2025 12:00	----	----	----
						VA25D0216-011	VA25D0216-012	----	----	----
						Result	Result	----	----	----
Metals										
Potassium	7440-09-7	E440/VA	100	mg/kg		5910	6140	----	----	----
Selenium	7782-49-2	E440/VA	0.20	mg/kg		0.34	0.38	----	----	----
Silver	7440-22-4	E440/VA	0.10	mg/kg		9.40	4.80	----	----	----
Sodium	7440-23-5	E440/VA	50	mg/kg		16200	16800	----	----	----
Strontium	7440-24-6	E440/VA	0.50	mg/kg		538	369	----	----	----
Sulfur	7704-34-9	E440/VA	1000	mg/kg		10400	11300	----	----	----
Thallium	7440-28-0	E440/VA	0.050	mg/kg		<0.050	<0.050	----	----	----
Tin	7440-31-5	E440/VA	2.0	mg/kg		670	124	----	----	----
Titanium	7440-32-6	E440/VA	1.0	mg/kg		272	327	----	----	----
Tungsten	7440-33-7	E440/VA	0.50	mg/kg		8.02	9.14	----	----	----
Uranium	7440-61-1	E440/VA	0.050	mg/kg		1.71	1.87	----	----	----
Vanadium	7440-62-2	E440/VA	0.20	mg/kg		30.0	28.6	----	----	----
Zinc	7440-66-6	E440/VA	2.0	mg/kg		3550	7120	----	----	----
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		2.8	2.8	----	----	----
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units		11.02	11.03	----	----	----
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units		2.88	3.78	----	----	----
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units		4.94	4.94	----	----	----
pH, TCLP final	----	EPP444/VA	0.010	pH units		9.34	9.29	----	----	----
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	BA 2545-A-11 ----	BA 2545-A-12 ----	----	----	----
					Client sampling date / time	10-Nov-2025 12:00	10-Nov-2025 12:00	----	----	----
						VA25D0216-011	VA25D0216-012	----	----	----
						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		0.88	0.90	----	----	----
Cadmium, TCLP	7440-43-9	E444/VA	0.050	mg/L		<0.050	<0.050	----	----	----
Calcium, TCLP	7440-70-2	E444/VA	10	mg/L		807	880	----	----	----
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		<0.050	<0.050	----	----	----
Copper, TCLP	7440-50-8	E444/VA	0.050	mg/L		0.465	0.482	----	----	----
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		16.0	19.7	----	----	----
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		<0.25	<0.25	----	----	----
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		<0.50	<0.50	----	----	----
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.

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA25D0216**	Page	: 1 of 16
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	: 12-Nov-2025 11:30
PO	: 1000497676	Issue Date	: 19-Nov-2025 17:07
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 Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

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

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Duplicate outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Soil/Solid**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Duplicate (DUP) RPDs								
Metals	VA25D0216-001	BA 2545-A-1	Bismuth	7440-69-9	E440	56.6 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25D0216-001	BA 2545-A-1	Copper	7440-50-8	E440	116 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25D0216-001	BA 2545-A-1	Iron	7439-89-6	E440	39.3 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25D0216-001	BA 2545-A-1	Lithium	7439-93-2	E440	34.5 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25D0216-001	BA 2545-A-1	Molybdenum	7439-98-7	E440	46.0 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25D0216-001	BA 2545-A-1	Nickel	7440-02-0	E440	74.5 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25D0216-001	BA 2545-A-1	Tungsten	7440-33-7	E440	32.1 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25D0216-001	BA 2545-A-1	Zinc	7440-66-6	E440	114 % DUP-H	30%	Duplicate RPD does not meet the DQO for this test.
Metals	VA25D0216-001	BA 2545-A-1	Mercury	7439-97-6	E510	169 % DUP-H	40%	Duplicate RPD does not meet the DQO for this test.

Result Qualifiers

Qualifier	*Description*
DUP-H	*Duplicate results outside ALS DQO, due to sample heterogeneity.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2545-A-1	E510	10-Nov-2025	19-Nov-2025	28 days	9 days	✓	19-Nov-2025	28 days	0 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2545-A-10	E510	10-Nov-2025	19-Nov-2025	28 days	9 days	✓	19-Nov-2025	28 days	0 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2545-A-11	E510	10-Nov-2025	19-Nov-2025	28 days	9 days	✓	19-Nov-2025	28 days	0 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2545-A-12	E510	10-Nov-2025	19-Nov-2025	28 days	9 days	✓	19-Nov-2025	28 days	0 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2545-A-2	E510	10-Nov-2025	19-Nov-2025	28 days	9 days	✓	19-Nov-2025	28 days	0 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2545-A-3	E510	10-Nov-2025	19-Nov-2025	28 days	9 days	✓	19-Nov-2025	28 days	0 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2545-A-4	E510	10-Nov-2025	19-Nov-2025	28 days	9 days	✓	19-Nov-2025	28 days	0 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2545-A-5	E510	10-Nov-2025	19-Nov-2025	28 days	9 days	✓	19-Nov-2025	28 days	0 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2545-A-6	E510	10-Nov-2025	19-Nov-2025	28 days	9 days	✓	19-Nov-2025	28 days	0 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2545-A-7	E510	10-Nov-2025	19-Nov-2025	28 days	9 days	✓	19-Nov-2025	28 days	0 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2545-A-8	E510	10-Nov-2025	19-Nov-2025	28 days	9 days	✓	19-Nov-2025	28 days	0 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2545-A-9	E510	10-Nov-2025	19-Nov-2025	28 days	9 days	✓	19-Nov-2025	28 days	0 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2545-A-1	E440	10-Nov-2025	19-Nov-2025	180 days	9 days	✓	19-Nov-2025	180 days	9 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2545-A-10	E440	10-Nov-2025	19-Nov-2025	180 days	9 days	✓	19-Nov-2025	180 days	9 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2545-A-11	E440	10-Nov-2025	19-Nov-2025	180 days	9 days	✓	19-Nov-2025	180 days	9 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2545-A-12	E440	10-Nov-2025	19-Nov-2025	180 days	9 days	✓	19-Nov-2025	180 days	9 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2545-A-2	E440	10-Nov-2025	19-Nov-2025	180 days	9 days	✓	19-Nov-2025	180 days	9 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2545-A-3	E440	10-Nov-2025	19-Nov-2025	180 days	9 days	✓	19-Nov-2025	180 days	9 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2545-A-4	E440	10-Nov-2025	19-Nov-2025	180 days	9 days	✓	19-Nov-2025	180 days	9 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2545-A-5	E440	10-Nov-2025	19-Nov-2025	180 days	9 days	✓	19-Nov-2025	180 days	9 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2545-A-6	E440	10-Nov-2025	19-Nov-2025	180 days	9 days	✓	19-Nov-2025	180 days	9 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2545-A-7	E440	10-Nov-2025	19-Nov-2025	180 days	9 days	✓	19-Nov-2025	180 days	9 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2545-A-8	E440	10-Nov-2025	19-Nov-2025	180 days	9 days	✓	19-Nov-2025	180 days	9 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2545-A-9	E440	10-Nov-2025	19-Nov-2025	180 days	9 days	✓	19-Nov-2025	180 days	9 days	✓
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2545-A-1	E144	10-Nov-2025	----	----	----		17-Nov-2025	----	----	

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2545-A-10	E144	10-Nov-2025	----	----	----		17-Nov-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2545-A-11	E144	10-Nov-2025	----	----	----		17-Nov-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2545-A-12	E144	10-Nov-2025	----	----	----		17-Nov-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2545-A-2	E144	10-Nov-2025	----	----	----		17-Nov-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2545-A-3	E144	10-Nov-2025	----	----	----		17-Nov-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2545-A-4	E144	10-Nov-2025	----	----	----		17-Nov-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2545-A-5	E144	10-Nov-2025	----	----	----		17-Nov-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2545-A-6	E144	10-Nov-2025	----	----	----		17-Nov-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2545-A-7	E144	10-Nov-2025	----	----	----		17-Nov-2025	----	----	

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2545-A-8	E144	10-Nov-2025	----	----	----		17-Nov-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2545-A-9	E144	10-Nov-2025	----	----	----		17-Nov-2025	----	----	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2545-A-1	E108	10-Nov-2025	19-Nov-2025	30 days	9 days	✓	19-Nov-2025	30 days	9 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2545-A-10	E108	10-Nov-2025	19-Nov-2025	30 days	9 days	✓	19-Nov-2025	30 days	9 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2545-A-11	E108	10-Nov-2025	19-Nov-2025	30 days	9 days	✓	19-Nov-2025	30 days	9 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2545-A-12	E108	10-Nov-2025	19-Nov-2025	30 days	9 days	✓	19-Nov-2025	30 days	9 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2545-A-2	E108	10-Nov-2025	19-Nov-2025	30 days	9 days	✓	19-Nov-2025	30 days	9 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2545-A-3	E108	10-Nov-2025	19-Nov-2025	30 days	9 days	✓	19-Nov-2025	30 days	9 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2545-A-4	E108	10-Nov-2025	19-Nov-2025	30 days	9 days	✓	19-Nov-2025	30 days	9 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2545-A-5	E108	10-Nov-2025	19-Nov-2025	30 days	9 days	✓	19-Nov-2025	30 days	9 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2545-A-6	E108	10-Nov-2025	19-Nov-2025	30 days	9 days	✓	19-Nov-2025	30 days	9 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2545-A-7	E108	10-Nov-2025	19-Nov-2025	30 days	9 days	✓	19-Nov-2025	30 days	9 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2545-A-8	E108	10-Nov-2025	19-Nov-2025	30 days	9 days	✓	19-Nov-2025	30 days	9 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2545-A-9	E108	10-Nov-2025	19-Nov-2025	30 days	9 days	✓	19-Nov-2025	30 days	9 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2545-A-1	E512	12-Nov-2025	14-Nov-2025	30 days	4 days	✓	14-Nov-2025	30 days	4 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2545-A-10	E512	12-Nov-2025	14-Nov-2025	30 days	4 days	✓	14-Nov-2025	30 days	4 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2545-A-11	E512	12-Nov-2025	14-Nov-2025	30 days	4 days	✓	14-Nov-2025	30 days	4 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2545-A-12	E512	12-Nov-2025	14-Nov-2025	30 days	4 days	✓	14-Nov-2025	30 days	4 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2545-A-2	E512	12-Nov-2025	14-Nov-2025	30 days	4 days	✓	14-Nov-2025	30 days	4 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2545-A-3	E512	12-Nov-2025	14-Nov-2025	30 days	4 days	✓	14-Nov-2025	30 days	4 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2545-A-4	E512	12-Nov-2025	14-Nov-2025	30 days	4 days	✓	14-Nov-2025	30 days	4 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2545-A-5	E512	12-Nov-2025	14-Nov-2025	30 days	4 days	✓	14-Nov-2025	30 days	4 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2545-A-6	E512	12-Nov-2025	14-Nov-2025	30 days	4 days	✓	14-Nov-2025	30 days	4 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2545-A-7	E512	12-Nov-2025	14-Nov-2025	30 days	4 days	✓	14-Nov-2025	30 days	4 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2545-A-8	E512	12-Nov-2025	14-Nov-2025	30 days	4 days	✓	14-Nov-2025	30 days	4 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2545-A-9	E512	12-Nov-2025	14-Nov-2025	30 days	4 days	✓	14-Nov-2025	30 days	4 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2545-A-1	E444	12-Nov-2025	14-Nov-2025	182 days	4 days	✓	14-Nov-2025	182 days	4 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2545-A-10	E444	12-Nov-2025	14-Nov-2025	182 days	4 days	✓	14-Nov-2025	182 days	4 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2545-A-11	E444	12-Nov-2025	14-Nov-2025	182 days	4 days	✓	14-Nov-2025	182 days	4 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2545-A-12	E444	12-Nov-2025	14-Nov-2025	182 days	4 days	✓	14-Nov-2025	182 days	4 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2545-A-2	E444	12-Nov-2025	14-Nov-2025	182 days	4 days	✓	14-Nov-2025	182 days	4 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2545-A-3	E444	12-Nov-2025	14-Nov-2025	182 days	4 days	✓	14-Nov-2025	182 days	4 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2545-A-4	E444	12-Nov-2025	14-Nov-2025	182 days	4 days	✓	14-Nov-2025	182 days	4 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2545-A-5	E444	12-Nov-2025	14-Nov-2025	182 days	4 days	✓	14-Nov-2025	182 days	4 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2545-A-6	E444	12-Nov-2025	14-Nov-2025	182 days	4 days	✓	14-Nov-2025	182 days	4 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2545-A-7	E444	12-Nov-2025	14-Nov-2025	182 days	4 days	✓	14-Nov-2025	182 days	4 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved)										
BA 2545-A-8	E444	12-Nov-2025	14-Nov-2025	182 days	4 days	✓	14-Nov-2025	182 days	4 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved)										
BA 2545-A-9	E444	12-Nov-2025	14-Nov-2025	182 days	4 days	✓	14-Nov-2025	182 days	4 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2545-A-1	EPP444	10-Nov-2025	12-Nov-2025	----	----		----	28 days	2 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2545-A-10	EPP444	10-Nov-2025	12-Nov-2025	----	----		----	28 days	2 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2545-A-11	EPP444	10-Nov-2025	12-Nov-2025	----	----		----	28 days	2 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2545-A-12	EPP444	10-Nov-2025	12-Nov-2025	----	----		----	28 days	2 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2545-A-2	EPP444	10-Nov-2025	12-Nov-2025	----	----		----	28 days	2 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2545-A-3	EPP444	10-Nov-2025	12-Nov-2025	----	----		----	28 days	2 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS)										
BA 2545-A-4	EPP444	10-Nov-2025	12-Nov-2025	----	----		----	28 days	2 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2545-A-5	EPP444	10-Nov-2025	12-Nov-2025	----	----		----	28 days	2 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2545-A-6	EPP444	10-Nov-2025	12-Nov-2025	----	----		----	28 days	2 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2545-A-7	EPP444	10-Nov-2025	12-Nov-2025	----	----		----	28 days	2 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2545-A-8	EPP444	10-Nov-2025	12-Nov-2025	----	----		----	28 days	2 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2545-A-9	EPP444	10-Nov-2025	12-Nov-2025	----	----		----	28 days	2 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **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	2341444	1	17	5.8	5.0	✓
Moisture Content by Gravimetry	E144	2341445	1	13	7.6	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	2341442	1	20	5.0	5.0	✓
Metals by CRC ICPMS (TCLP)	E444	2336436	1	12	8.3	5.0	✓
Mercury in Soil/Solid by CVAAS	E510	2341443	1	17	5.8	5.0	✓
Mercury by CVAAS (TCLP)	E512	2336435	1	12	8.3	5.0	✓
Laboratory Control Samples (LCS)							
pH by Meter (1:2 Soil:Water Extraction)	E108	2341444	1	17	5.8	5.0	✓
Moisture Content by Gravimetry	E144	2341445	1	13	7.6	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	2341442	2	20	10.0	10.0	✓
Mercury in Soil/Solid by CVAAS	E510	2341443	2	17	11.7	10.0	✓
Method Blanks (MB)							
Moisture Content by Gravimetry	E144	2341445	1	13	7.6	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	2341442	1	20	5.0	5.0	✓
Metals by CRC ICPMS (TCLP)	E444	2336436	1	12	8.3	5.0	✓
Mercury in Soil/Solid by CVAAS	E510	2341443	1	17	5.8	5.0	✓
Mercury by CVAAS (TCLP)	E512	2336435	1	12	8.3	5.0	✓
Matrix Spikes (MS)							
Metals by CRC ICPMS (TCLP)	E444	2336436	1	12	8.3	5.0	✓
Mercury by CVAAS (TCLP)	E512	2336435	1	12	8.3	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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.
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.
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.
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.
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.
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.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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.
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	: **VA25D0216**	Page	: 1 of 12
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	: 12-Nov-2025 11:30
PO	: 1000497676	Date Analysis Commenced	: 12-Nov-2025
C-O-C number	: ----	Issue Date	: 19-Nov-2025 17:07
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*
Brieanna Allen	Production/Validation Manager	Vancouver Organics, Burnaby, British Columbia
Robert Nguyen	Analyst	Vancouver Metals, Burnaby, British Columbia

General Comments

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

Key :

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

Workorder Comments

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

Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **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: 2341444)											
VA25D0216-001	BA 2545-A-1	pH (1:2 soil:water)	----	E108	0.10	pH units	10.11	10.12	0.1%	5%	----
Physical Tests (QC Lot: 2341445)											
VA25C9657-021	Anonymous	Moisture	----	E144	0.25	%	7.70	7.83	1.70%	20%	----
Metals (QC Lot: 2341442)											
VA25D0216-001	BA 2545-A-1	Aluminum	7429-90-5	E440	50	mg/kg	43100	39600	8.52%	40%	----
		Antimony	7440-36-0	E440	0.10	mg/kg	110	107	2.79%	30%	----
		Arsenic	7440-38-2	E440	0.10	mg/kg	11.3	9.87	13.9%	30%	----
		Barium	7440-39-3	E440	0.50	mg/kg	529	567	6.96%	40%	----
		Beryllium	7440-41-7	E440	0.10	mg/kg	0.44	0.41	0.03	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.20	mg/kg	16.0	8.93	56.6%	30%	DUP-H
		Boron	7440-42-8	E440	5.0	mg/kg	154	181	15.9%	30%	----
		Cadmium	7440-43-9	E440	0.020	mg/kg	7.57	6.31	18.2%	30%	----
		Calcium	7440-70-2	E440	50	mg/kg	137000	130000	5.47%	30%	----
		Chromium	7440-47-3	E440	0.50	mg/kg	153	170	10.5%	30%	----
		Cobalt	7440-48-4	E440	0.10	mg/kg	83.5	96.0	13.8%	30%	----
		Copper	7440-50-8	E440	0.50	mg/kg	8450	2250	116%	30%	DUP-H
		Iron	7439-89-6	E440	50	mg/kg	52400	78100	39.3%	30%	DUP-H
		Lead	7439-92-1	E440	0.50	mg/kg	355	255	32.9%	40%	----
		Lithium	7439-93-2	E440	2.0	mg/kg	39.3	27.7	34.5%	30%	DUP-H
		Magnesium	7439-95-4	E440	20	mg/kg	14000	13200	5.98%	30%	----
		Manganese	7439-96-5	E440	1.0	mg/kg	888	917	3.23%	30%	----
		Molybdenum	7439-98-7	E440	0.10	mg/kg	29.6	18.5	46.0%	40%	DUP-H
		Nickel	7440-02-0	E440	0.50	mg/kg	278	127	74.5%	30%	DUP-H
		Phosphorus	7723-14-0	E440	50	mg/kg	13200	12100	8.56%	30%	----
		Potassium	7440-09-7	E440	100	mg/kg	6340	5900	7.26%	40%	----
		Selenium	7782-49-2	E440	0.20	mg/kg	0.35	0.36	0.02	Diff <2x LOR	----
		Silver	7440-22-4	E440	0.10	mg/kg	7.69	5.62	31.1%	40%	----
		Sodium	7440-23-5	E440	50	mg/kg	16600	16900	1.39%	40%	----
		Strontium	7440-24-6	E440	0.50	mg/kg	357	309	14.4%	40%	----
		Sulfur	7704-34-9	E440	1000	mg/kg	12500	10500	17.3%	30%	----

Sub-Matrix: **Soil/Solid**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Metals (QC Lot: 2341442) - continued											
VA25D0216-001	BA 2545-A-1	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	125	115	8.84%	40%	----
		Titanium	7440-32-6	E440	1.0	mg/kg	250	273	8.71%	40%	----
		Tungsten	7440-33-7	E440	0.50	mg/kg	8.97	12.4	32.1%	30%	DUP-H
		Uranium	7440-61-1	E440	0.050	mg/kg	1.92	1.84	4.51%	30%	----
		Vanadium	7440-62-2	E440	0.20	mg/kg	26.8	26.3	1.78%	30%	----
		Zinc	7440-66-6	E440	2.0	mg/kg	15000	4080	114%	30%	DUP-H
		Zirconium	7440-67-7	E440	1.0	mg/kg	3.1	4.4	1.3	Diff <2x LOR	----
Metals (QC Lot: 2341443)											
VA25D0216-001	BA 2545-A-1	Mercury	7439-97-6	E510	0.0500	mg/kg	1.58	0.132	169%	40%	DUP-H
TCLP Metals (QC Lot: 2336435)											
VA25D0216-001	BA 2545-A-1	Mercury, TCLP	7439-97-6	E512	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
TCLP Metals (QC Lot: 2336436)											
VA25D0216-001	BA 2545-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	0.87	0.83	0.04	Diff <2x LOR	----
		Cadmium, TCLP	7440-43-9	E444	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Calcium, TCLP	7440-70-2	E444	10	mg/L	757	766	1.23%	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	<0.050	<0.050	0	Diff <2x LOR	----
		Copper, TCLP	7440-50-8	E444	0.050	mg/L	0.494	0.487	1.54%	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	12.4	12.4	0.02	Diff <2x LOR	----
		Nickel, TCLP	7440-02-0	E444	0.25	mg/L	<0.25	<0.25	0	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	<0.50	<0.50	0	Diff <2x LOR	----
		Zirconium, TCLP	7440-67-7	E444	10	mg/L	<10	<10	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: 2341445)						
Moisture	----	E144	0.25	%	<0.25	----
Metals (QCLot: 2341442)						
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	----
Titanium	7440-32-6	E440	1	mg/kg	<1.0	----
Tungsten	7440-33-7	E440	0.5	mg/kg	<0.50	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 2341442) - continued						
Uranium	7440-61-1	E440	0.05	mg/kg	<0.050	----
Vanadium	7440-62-2	E440	0.2	mg/kg	<0.20	----
Zinc	7440-66-6	E440	2	mg/kg	<2.0	----
Zirconium	7440-67-7	E440	1	mg/kg	<1.0	----
Metals (QCLot: 2341443)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
TCLP Metals (QCLot: 2336435)						
Mercury, TCLP	7439-97-6	E512	0.001	mg/L	<0.0010	----
TCLP Metals (QCLot: 2336436)						
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	----

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: 2341444)									
pH (1:2 soil:water)	----	E108	----	pH units	6 pH units	101	95.0	105	----
Physical Tests (QCLot: 2341445)									
Moisture	----	E144	0.25	%	50 %	99.1	90.0	110	----
Metals (QCLot: 2341442)									
Aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	103	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	103	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	108	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	102	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	99.3	80.0	120	----
Cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	99.3	80.0	120	----
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	97.7	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	110	80.0	120	----
Lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	106	80.0	120	----
Magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	108	80.0	120	----
Manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	100	80.0	120	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	105	80.0	120	----
Nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	98.6	80.0	120	----
Phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	106	80.0	120	----
Potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	101	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	94.5	80.0	120	----
Sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	98.9	80.0	120	----
Strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	114	80.0	120	----
Sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	106	80.0	120	----
Thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	112	80.0	120	----
Tin	7440-31-5	E440	2	mg/kg	50 mg/kg	105	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: 2341442) - continued									
Titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	98.1	80.0	120	----
Tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	103	80.0	120	----
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	107	80.0	120	----
Vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	100	80.0	120	----
Zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	99.1	80.0	120	----
Zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	104	80.0	120	----
Metals (QCLot: 2341443)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	100.0	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: 2336435)										
VA25D0216-001	BA 2545-A-1	Mercury, TCLP	7439-97-6	E512	0.0033 mg/L	0.003 mg/L	111	50.0	140	----
TCLP Metals (QCLot: 2336436)										
VA25D0216-001	BA 2545-A-1	Antimony, TCLP	7440-36-0	E444	4.75 mg/L	5 mg/L	95.0	50.0	140	----
		Arsenic, TCLP	7440-38-2	E444	4.5 mg/L	5 mg/L	90.6	50.0	140	----
		Barium, TCLP	7440-39-3	E444	10.8 mg/L	12.5 mg/L	86.4	50.0	140	----
		Beryllium, TCLP	7440-41-7	E444	0.220 mg/L	0.25 mg/L	88.0	50.0	140	----
		Boron, TCLP	7440-42-8	E444	8.35 mg/L	10 mg/L	83.5	50.0	140	----
		Cadmium, TCLP	7440-43-9	E444	0.217 mg/L	0.25 mg/L	86.8	50.0	140	----
		Calcium, TCLP	7440-70-2	E444	ND mg/L	----	ND	50.0	140	----
		Chromium, TCLP	7440-47-3	E444	1.08 mg/L	1.25 mg/L	86.3	50.0	140	----
		Cobalt, TCLP	7440-48-4	E444	0.222 mg/L	0.25 mg/L	88.8	50.0	140	----
		Copper, TCLP	7440-50-8	E444	2.15 mg/L	2.5 mg/L	86.2	50.0	140	----
		Iron, TCLP	7439-89-6	E444	206 mg/L	250 mg/L	82.4	50.0	140	----
		Lead, TCLP	7439-92-1	E444	8.29 mg/L	10 mg/L	82.9	50.0	140	----
		Magnesium, TCLP	7439-95-4	E444	229 mg/L	250 mg/L	91.4	50.0	140	----
		Nickel, TCLP	7440-02-0	E444	2.16 mg/L	2.5 mg/L	86.5	50.0	140	----
		Selenium, TCLP	7782-49-2	E444	4.50 mg/L	5 mg/L	90.0	50.0	140	----
		Silver, TCLP	7440-22-4	E444	0.074 mg/L	0.1 mg/L	74.1	50.0	140	----
		Thallium, TCLP	7440-28-0	E444	4.1 mg/L	5 mg/L	82.9	50.0	140	----
		Uranium, TCLP	7440-61-1	E444	4.27 mg/L	5 mg/L	85.4	50.0	150	----
		Vanadium, TCLP	7440-62-2	E444	0.67 mg/L	0.75 mg/L	90.0	50.0	140	----
		Zinc, TCLP	7440-66-6	E444	9.07 mg/L	10 mg/L	90.7	50.0	140	----
		Zirconium, TCLP	7440-67-7	E444	0.6 mg/L	1 mg/L	64.2	50.0	150	----

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: 2341442)									
QC-2341442-003	MRCA-21	Aluminum	7429-90-5	E440	22500 mg/kg	107	70.0	130	----
QC-2341442-003	MRCA-21	Antimony	7440-36-0	E440	24.8 mg/kg	95.9	70.0	130	----
QC-2341442-003	MRCA-21	Arsenic	7440-38-2	E440	21.2 mg/kg	95.5	70.0	130	----
QC-2341442-003	MRCA-21	Barium	7440-39-3	E440	788 mg/kg	103	70.0	130	----
QC-2341442-003	MRCA-21	Beryllium	7440-41-7	E440	1.82 mg/kg	101	70.0	130	----
QC-2341442-003	MRCA-21	Bismuth	7440-69-9	E440	1.78 mg/kg	91.4	70.0	130	----
QC-2341442-003	MRCA-21	Cadmium	7440-43-9	E440	2.15 mg/kg	99.5	70.0	130	----
QC-2341442-003	MRCA-21	Calcium	7440-70-2	E440	4900 mg/kg	97.2	70.0	130	----
QC-2341442-003	MRCA-21	Chromium	7440-47-3	E440	56.9 mg/kg	97.0	70.0	130	----
QC-2341442-003	MRCA-21	Cobalt	7440-48-4	E440	32 mg/kg	96.5	70.0	130	----
QC-2341442-003	MRCA-21	Copper	7440-50-8	E440	969 mg/kg	99.1	70.0	130	----
QC-2341442-003	MRCA-21	Iron	7439-89-6	E440	32700 mg/kg	104	70.0	130	----
QC-2341442-003	MRCA-21	Lead	7439-92-1	E440	919 mg/kg	103	70.0	130	----
QC-2341442-003	MRCA-21	Lithium	7439-93-2	E440	47.3 mg/kg	112	70.0	130	----
QC-2341442-003	MRCA-21	Magnesium	7439-95-4	E440	7780 mg/kg	109	70.0	130	----
QC-2341442-003	MRCA-21	Manganese	7439-96-5	E440	8640 mg/kg	100	70.0	130	----
QC-2341442-003	MRCA-21	Molybdenum	7439-98-7	E440	25.1 mg/kg	97.8	70.0	130	----
QC-2341442-003	MRCA-21	Nickel	7440-02-0	E440	1000 mg/kg	103	70.0	130	----
QC-2341442-003	MRCA-21	Phosphorus	7723-14-0	E440	660 mg/kg	98.0	70.0	130	----
QC-2341442-003	MRCA-21	Potassium	7440-09-7	E440	10800 mg/kg	100	70.0	130	----
QC-2341442-003	MRCA-21	Selenium	7782-49-2	E440	1.04 mg/kg	100	60.0	140	----
QC-2341442-003	MRCA-21	Silver	7440-22-4	E440	8.98 mg/kg	96.5	70.0	130	----
QC-2341442-003	MRCA-21	Sodium	7440-23-5	E440	1770 mg/kg	103	70.0	130	----
QC-2341442-003	MRCA-21	Strontium	7440-24-6	E440	41 mg/kg	107	70.0	130	----
QC-2341442-003	MRCA-21	Sulfur	7704-34-9	E440	3940 mg/kg	105	50.0	150	----
QC-2341442-003	MRCA-21	Thallium	7440-28-0	E440	0.907 mg/kg	102	70.0	130	----
QC-2341442-003	MRCA-21	Tin	7440-31-5	E440	3.79 mg/kg	101	40.0	160	----
QC-2341442-003	MRCA-21	Titanium	7440-32-6	E440	2790 mg/kg	98.1	70.0	130	----
QC-2341442-003	MRCA-21	Tungsten	7440-33-7	E440	6.99 mg/kg	102	70.0	130	----
QC-2341442-003	MRCA-21	Uranium	7440-61-1	E440	3.97 mg/kg	92.5	70.0	130	----
QC-2341442-003	MRCA-21	Vanadium	7440-62-2	E440	66.2 mg/kg	96.5	70.0	130	----
QC-2341442-003	MRCA-21	Zinc	7440-66-6	E440	828 mg/kg	97.0	70.0	130	----
QC-2341442-003	MRCA-21	Zirconium	7440-67-7	E440	6.91 mg/kg	100	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: 2341443)									
QC-2341443-003	MRCA-21	Mercury	7439-97-6	E510	0.068 mg/kg	101	70.0	130	----

ALS Environmental

Chain of Custody / Analytical Request Form

Canada Toll Free: 1 800 668 9878

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COC # _____

Page 1 of 1

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 2545-A-1	10/11/2025	12:00	Soil	X	X				X							1
	BA 2545-A-2	10/11/2025	12:00	Soil	X	X				X							1
	BA 2545-A-3	10/11/2025	12:00	Soil	X	X				X							1
	BA 2545-A-4	10/11/2025	12:00	Soil	X	X				X							1
	BA 2545-A-5	10/11/2025	12:00	Soil	X	X				X							1
	BA 2545-A-6	10/11/2025	12:00	Soil	X	X				X							1
	BA 2545-A-7	10/11/2025	12:00	Soil	X	X				X							1
	BA 2545-A-8	10/11/2025	12:00	Soil	X	X				X							1
	BA 2545-A-9	10/11/2025	12:00	Soil	X	X				X							1
	BA 2545-A-10	10/11/2025	12:00	Soil	X	X				X							1
	BA 2545-A-11	10/11/2025	12:00	Soil	X	X				X							1
	BA 2545-A-12	10/11/2025	12:00	Soil	X	X				X							1
water Aquatic																	

Environmental Division
Vancouver
Work Order Reference
VA25D0216

Telephone : +1 604 253 4188

rm may delay a
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numbers and

NT RELEASE (

SHIPMENT RECEPTION (lab use only)						
Released by:	Date (dd-mmm-yy)	Time (hh-mm)	Received by:	Time:	Temperature:	
	12/11/25	07:20	JC	1130 am	19 °C	

Rcvd 12Nov2025

19 °C
JC12/11/25

SHIPMENT VERIFICATION (lab use only)			
Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF

GENF 20.00 Front

ALS Environmental

Chain of Custody / Analytical Request Form

Canada Toll Free: 1 800 668 9878

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COC # _____

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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		
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	BA 2545-A-6	10/11/2025	12:00	Soil	X	X				X							1
	BA 2545-A-7	10/11/2025	12:00	Soil	X	X				X							1
	BA 2545-A-8	10/11/2025	12:00	Soil	X	X				X							1
	BA 2545-A-9	10/11/2025	12:00	Soil	X	X				X							1
	BA 2545-A-10	10/11/2025	12:00	Soil	X	X				X							1
	BA 2545-A-11	10/11/2025	12:00	Soil	X	X				X							1
	BA 2545-A-12	10/11/2025	12:00	Soil	X	X				X							1
water Aquatic																	

Environmental Division
Vancouver
Work Order Reference
VA25D0216

Telephone : +1 604 253 4188

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numbers and

NT RELEASE (

SHIPMENT RECEPTION (lab use only)						SHIPMENT VERIFICATION (lab use only)			
Released by:	Date (dd-mmm-yy)	Time (hh-mm)	Received by:	Time:	Temperature:	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF
	12/11/25	07:20	JC	1130	19 °C				

Rcvd 12Nov2025

19 °C
JC 12/11/25

Bottom Ash Worksheet

Date sample composited (DD/MM/YYYY)	10/11/2025
Person doing the sampling	VINCE PASCUAL
Total Sample Weight before processing, kg	26.73 kg
Weight of Material >3/8", kg	3.83 kg
Weight of Material that cannot be processed to <3/8" (metal, wood, etc), kg	2.39 kg
Final Total weight of Processed Bottom Ash, kg	22.84 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"