metrovancouver

Bottom Ash Data

2025 Week 30

The following analytical report represents bottom ash composite results for week 30 of 2025 (July 20, 2025 to July 26, 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	:	**VA25B8547**		
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	: 28-Jul-2025 12:10
C-O-C number	:	----	Date Analysis Commenced	: 30-Jul-2025
Sampler	:	----	Issue Date	: 05-Aug-2025 10:15
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		Metals, Burnaby, British Columbia
Ophelia Chiu		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.

Workorder Comments

Bismuth recovery was elevated in the soil RM for E440 (229%). This has occurred multiple times with our new RM, and it is suspected to be a hot spot related to the RM itself. The LCS recovery was good (96.9%), and it is not expected that there is any impact on the sample results 1 through 12.

Analytical Results

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

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2530-A-1 ----	BA 2530-A-2 ----	BA 2530-A-3 ----	BA 2530-A-4 ----	BA 2530-A-5 ----
					Client sampling date / time	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00
						VA25B8547-001	VA25B8547-002	VA25B8547-003	VA25B8547-004	VA25B8547-005
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.25	%		19.0	19.6	18.2	19.3	19.7
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		10.72	10.57	10.71	11.17	10.53
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg		46800	34300	39200	38100	38700
Antimony	7440-36-0	E440/VA	0.10	mg/kg		95.9	91.8	96.2	104	109
Arsenic	7440-38-2	E440/VA	0.10	mg/kg		16.4	16.6	24.8	17.1	18.4
Barium	7440-39-3	E440/VA	0.50	mg/kg		751	611	579	534	602
Beryllium	7440-41-7	E440/VA	0.10	mg/kg		0.34	0.34	0.31	0.37	0.32
Bismuth	7440-69-9	E440/VA	0.20	mg/kg		11.3	11.4	6.81	9.07	6.05
Boron	7440-42-8	E440/VA	5.0	mg/kg		187	143	202	190	272
Cadmium	7440-43-9	E440/VA	0.020	mg/kg		6.02	6.60	7.04	5.93	5.15
Calcium	7440-70-2	E440/VA	50	mg/kg		134000	125000	131000	122000	125000
Chromium	7440-47-3	E440/VA	0.50	mg/kg		119	102	123	236	146
Cobalt	7440-48-4	E440/VA	0.10	mg/kg		52.4	61.8	212	240	361
Copper	7440-50-8	E440/VA	0.50	mg/kg		1430	2990	5880	6220	1360
Iron	7439-89-6	E440/VA	50	mg/kg		42500	58700	47400	55500	74000
Lead	7439-92-1	E440/VA	0.50	mg/kg		227	507	364	4200	1260
Lithium	7439-93-2	E440/VA	2.0	mg/kg		34.7	48.4	31.8	56.6	73.4
Magnesium	7439-95-4	E440/VA	20	mg/kg		11100	10200	10800	10000	10500
Manganese	7439-96-5	E440/VA	1.0	mg/kg		699	647	682	1420	912
Mercury	7439-97-6	E510/VA	0.0500	mg/kg		0.0534	0.0796	<0.0500	<0.0500	<0.0500

Analytical Results

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

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2530-A-1 ----	BA 2530-A-2 ----	BA 2530-A-3 ----	BA 2530-A-4 ----	BA 2530-A-5 ----
					Client sampling date / time	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00
						VA25B8547-001	VA25B8547-002	VA25B8547-003	VA25B8547-004	VA25B8547-005
						Result	Result	Result	Result	Result
Metals										
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg		17.5	21.8	13.5	43.8	12.7
Nickel	7440-02-0	E440/VA	0.50	mg/kg		206	260	154	523	542
Phosphorus	7723-14-0	E440/VA	50	mg/kg		10700	10300	9880	8470	12000
Potassium	7440-09-7	E440/VA	100	mg/kg		6080	4930	4830	4780	4890
Selenium	7782-49-2	E440/VA	0.20	mg/kg		0.30	0.28	0.34	0.28	0.29
Silver	7440-22-4	E440/VA	0.10	mg/kg		>44.6	4.80	3.51	8.55	16.7
Sodium	7440-23-5	E440/VA	50	mg/kg		16400	14800	13900	14200	13700
Strontium	7440-24-6	E440/VA	0.50	mg/kg		306	283	276	394	274
Sulfur	7704-34-9	E440/VA	1000	mg/kg		9000	8700	8300	8900	8500
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		84.9	176	421	108	540
Titanium	7440-32-6	E440/VA	1.0	mg/kg		421	302	380	245	270
Tungsten	7440-33-7	E440/VA	0.50	mg/kg		112	12.9	13.3	21.9	10.0
Uranium	7440-61-1	E440/VA	0.050	mg/kg		1.77	1.57	1.55	1.64	1.63
Vanadium	7440-62-2	E440/VA	0.20	mg/kg		33.0	29.7	32.6	38.3	34.3
Zinc	7440-66-6	E440/VA	2.0	mg/kg		5000	3190	3240	2470	2230
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		3.0	2.4	2.5	3.3	3.0
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units		11.78	11.46	11.68	11.80	11.66
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units		3.10	2.18	2.68	2.74	3.75
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 2530-A-1 ----	BA 2530-A-2 ----	BA 2530-A-3 ----	BA 2530-A-4 ----	BA 2530-A-5 ----
					Client sampling date / time	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00
						VA25B8547-001	VA25B8547-002	VA25B8547-003	VA25B8547-004	VA25B8547-005
						Result	Result	Result	Result	Result
TCLP Metals										
pH, TCLP final	----	EPP444/VA	0.010	pH units		10.02	9.91	9.72	10.13	9.53
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		0.58	0.65	0.71	0.72	0.72
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		671	751	763	755	739
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		0.922	0.910	0.938	0.974	0.871
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		<2.5	<2.5	<2.5	<2.5	2.8
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 2530-A-1 ----	BA 2530-A-2 ----	BA 2530-A-3 ----	BA 2530-A-4 ----	BA 2530-A-5 ----
					Client sampling date / time	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00
						VA25B8547-001	VA25B8547-002	VA25B8547-003	VA25B8547-004	VA25B8547-005
						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 2530-A-6 ----	BA 2530-A-7 ----	BA 2530-A-8 ----	BA 2530-A-9 ----	BA 2530-A-10 ----
					Client sampling date / time	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00
						VA25B8547-006	VA25B8547-007	VA25B8547-008	VA25B8547-009	VA25B8547-010
						Result	Result	Result	Result	Result
Physical Tests										
Moisture	----	E144/VA	0.25	%		19.8	19.1	18.0	18.7	17.8
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		10.72	11.10	11.58	11.49	11.44
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg		38200	32600	33600	42700	38500
Antimony	7440-36-0	E440/VA	0.10	mg/kg		103	81.0	88.3	73.9	135
Arsenic	7440-38-2	E440/VA	0.10	mg/kg		23.7	18.6	35.3	16.6	19.6
Barium	7440-39-3	E440/VA	0.50	mg/kg		690	546	716	531	570
Beryllium	7440-41-7	E440/VA	0.10	mg/kg		0.35	0.30	0.34	0.30	0.34
Bismuth	7440-69-9	E440/VA	0.20	mg/kg		6.66	5.44	6.24	4.62	6.54
Boron	7440-42-8	E440/VA	5.0	mg/kg		157	156	220	150	151
Cadmium	7440-43-9	E440/VA	0.020	mg/kg		8.17	5.34	6.43	6.41	6.01
Calcium	7440-70-2	E440/VA	50	mg/kg		145000	122000	140000	123000	127000

Analytical Results

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

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2530-A-6 ----	BA 2530-A-7 ----	BA 2530-A-8 ----	BA 2530-A-9 ----	BA 2530-A-10 ----
					Client sampling date / time	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00
						VA25B8547-006	VA25B8547-007	VA25B8547-008	VA25B8547-009	VA25B8547-010
						Result	Result	Result	Result	Result
Metals										
Chromium	7440-47-3	E440/VA	0.50	mg/kg		144	141	135	130	136
Cobalt	7440-48-4	E440/VA	0.10	mg/kg		90.7	144	52.6	439	552
Copper	7440-50-8	E440/VA	0.50	mg/kg		3240	5480	6840	1320	1880
Iron	7439-89-6	E440/VA	50	mg/kg		39800	64800	52700	62700	66000
Lead	7439-92-1	E440/VA	0.50	mg/kg		583	480	254	190	363
Lithium	7439-93-2	E440/VA	2.0	mg/kg		59.7	52.7	30.8	37.5	102
Magnesium	7439-95-4	E440/VA	20	mg/kg		11600	11100	11300	9640	10300
Manganese	7439-96-5	E440/VA	1.0	mg/kg		729	1490	645	880	765
Mercury	7439-97-6	E510/VA	0.0500	mg/kg		0.0698	<0.0500	0.0544	<0.0500	1.38
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg		20.4	15.4	25.4	18.1	17.2
Nickel	7440-02-0	E440/VA	0.50	mg/kg		146	342	138	137	129
Phosphorus	7723-14-0	E440/VA	50	mg/kg		15100	9230	12400	12200	10700
Potassium	7440-09-7	E440/VA	100	mg/kg		6020	5430	5520	4620	4940
Selenium	7782-49-2	E440/VA	0.20	mg/kg		0.40	0.22	0.29	0.28	0.36
Silver	7440-22-4	E440/VA	0.10	mg/kg		6.12	5.27	7.00	2.92	24.0
Sodium	7440-23-5	E440/VA	50	mg/kg		17300	15300	14100	12800	13900
Strontium	7440-24-6	E440/VA	0.50	mg/kg		324	281	374	265	286
Sulfur	7704-34-9	E440/VA	1000	mg/kg		10400	9600	9400	8000	9700
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		104	112	83.9	80.2	479
Titanium	7440-32-6	E440/VA	1.0	mg/kg		262	285	248	286	492

Analytical Results

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

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2530-A-6 ----	BA 2530-A-7 ----	BA 2530-A-8 ----	BA 2530-A-9 ----	BA 2530-A-10 ----
					Client sampling date / time	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00
						VA25B8547-006	VA25B8547-007	VA25B8547-008	VA25B8547-009	VA25B8547-010
						Result	Result	Result	Result	Result
Metals										
Tungsten	7440-33-7	E440/VA	0.50	mg/kg		25.0	12.1	11.3	9.98	17.6
Uranium	7440-61-1	E440/VA	0.050	mg/kg		2.55	1.58	1.64	1.66	1.75
Vanadium	7440-62-2	E440/VA	0.20	mg/kg		42.7	32.6	34.6	46.3	34.9
Zinc	7440-66-6	E440/VA	2.0	mg/kg		3490	2960	3420	2590	7790
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		3.4	2.3	3.3	3.5	2.3
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units		11.75	11.85	11.97	11.91	11.76
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units		3.46	4.00	4.55	4.62	3.60
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		9.78	10.02	10.85	10.83	10.51
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		0.69	0.67	0.56	0.54	0.63
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		736	720	728	734	740
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		0.866	0.831	1.16	1.05	0.986
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 2530-A-6 ----	BA 2530-A-7 ----	BA 2530-A-8 ----	BA 2530-A-9 ----	BA 2530-A-10 ----
					Client sampling date / time	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00	23-Jul-2025 09:00
						VA25B8547-006	VA25B8547-007	VA25B8547-008	VA25B8547-009	VA25B8547-010
						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		<2.5	<2.5	<2.5	<2.5	<2.5
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	<0.50	<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 2530-A-11 ----	BA 2530-A-12 ----	----	----	----
					Client sampling date / time	23-Jul-2025 09:00	23-Jul-2025 09:00	----	----	----
						VA25B8547-011	VA25B8547-012	----	----	----
						Result	Result	----	----	----
Physical Tests										
Moisture	----	E144/VA	0.25	%		16.8	18.8	----	----	----
pH (1:2 soil:water)	----	E108/VA	0.10	pH units		10.91	11.69	----	----	----

Analytical Results

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

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2530-A-11 ----	BA 2530-A-12 ----	----	----	----
					Client sampling date / time	23-Jul-2025 09:00	23-Jul-2025 09:00	----	----	----
						VA25B8547-011	VA25B8547-012	----	----	----
						Result	Result	----	----	----
Metals										
Aluminum	7429-90-5	E440/VA	50	mg/kg		54000	39300	----	----	----
Antimony	7440-36-0	E440/VA	0.10	mg/kg		101	101	----	----	----
Arsenic	7440-38-2	E440/VA	0.10	mg/kg		22.7	28.0	----	----	----
Barium	7440-39-3	E440/VA	0.50	mg/kg		620	581	----	----	----
Beryllium	7440-41-7	E440/VA	0.10	mg/kg		0.32	0.28	----	----	----
Bismuth	7440-69-9	E440/VA	0.20	mg/kg		6.45	4.40	----	----	----
Boron	7440-42-8	E440/VA	5.0	mg/kg		146	243	----	----	----
Cadmium	7440-43-9	E440/VA	0.020	mg/kg		7.06	5.51	----	----	----
Calcium	7440-70-2	E440/VA	50	mg/kg		127000	114000	----	----	----
Chromium	7440-47-3	E440/VA	0.50	mg/kg		131	210	----	----	----
Cobalt	7440-48-4	E440/VA	0.10	mg/kg		161	1300	----	----	----
Copper	7440-50-8	E440/VA	0.50	mg/kg		1380	3570	----	----	----
Iron	7439-89-6	E440/VA	50	mg/kg		40700	67800	----	----	----
Lead	7439-92-1	E440/VA	0.50	mg/kg		260	798	----	----	----
Lithium	7439-93-2	E440/VA	2.0	mg/kg		41.5	29.9	----	----	----
Magnesium	7439-95-4	E440/VA	20	mg/kg		12500	9090	----	----	----
Manganese	7439-96-5	E440/VA	1.0	mg/kg		849	1280	----	----	----
Mercury	7439-97-6	E510/VA	0.0500	mg/kg		0.104	<0.0500	----	----	----
Molybdenum	7439-98-7	E440/VA	0.10	mg/kg		18.1	11.9	----	----	----
Nickel	7440-02-0	E440/VA	0.50	mg/kg		90.7	987	----	----	----
Phosphorus	7723-14-0	E440/VA	50	mg/kg		12200	8230	----	----	----

Analytical Results

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

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BA 2530-A-11 ----	BA 2530-A-12 ----	----	----	----
					Client sampling date / time	23-Jul-2025 09:00	23-Jul-2025 09:00	----	----	----
						VA25B8547-011	VA25B8547-012	----	----	----
						Result	Result	----	----	----
Metals										
Potassium	7440-09-7	E440/VA	100	mg/kg		5660	4050	----	----	----
Selenium	7782-49-2	E440/VA	0.20	mg/kg		0.34	0.26	----	----	----
Silver	7440-22-4	E440/VA	0.10	mg/kg		5.53	2.77	----	----	----
Sodium	7440-23-5	E440/VA	50	mg/kg		15500	11900	----	----	----
Strontium	7440-24-6	E440/VA	0.50	mg/kg		287	327	----	----	----
Sulfur	7704-34-9	E440/VA	1000	mg/kg		9400	8400	----	----	----
Thallium	7440-28-0	E440/VA	0.050	mg/kg		<0.050	<0.050	----	----	----
Tin	7440-31-5	E440/VA	2.0	mg/kg		110	80.9	----	----	----
Titanium	7440-32-6	E440/VA	1.0	mg/kg		578	317	----	----	----
Tungsten	7440-33-7	E440/VA	0.50	mg/kg		16.9	9.80	----	----	----
Uranium	7440-61-1	E440/VA	0.050	mg/kg		1.84	1.50	----	----	----
Vanadium	7440-62-2	E440/VA	0.20	mg/kg		35.7	37.4	----	----	----
Zinc	7440-66-6	E440/VA	2.0	mg/kg		2700	2240	----	----	----
Zirconium	7440-67-7	E440/VA	1.0	mg/kg		3.8	3.2	----	----	----
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444/VA	0.010	pH units		11.84	11.87	----	----	----
pH, TCLP 2nd preliminary	----	EPP444/VA	0.010	pH units		4.22	4.40	----	----	----
pH, TCLP extraction fluid initial	----	EPP444/VA	0.010	pH units		4.94	4.94	----	----	----
pH, TCLP final	----	EPP444/VA	0.010	pH units		9.85	10.79	----	----	----
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 2530-A-11 ----	BA 2530-A-12 ----	----	----	----
					Client sampling date / time	23-Jul-2025 09:00	23-Jul-2025 09:00	----	----	----
						VA25B8547-011	VA25B8547-012	----	----	----
						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		0.68	0.60	----	----	----
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		736	761	----	----	----
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		0.926	1.12	----	----	----
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		<2.5	<2.5	----	----	----
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	: **VA25B8547**	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	: 28-Jul-2025 12:10
PO	: 1000497676	Issue Date	: 05-Aug-2025 10:14
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 Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- Reference Material (RM) Sample outliers occur - please see the following pages for full details.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Matrix: **Soil/Solid**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Reference Material (RM) Sample								
Metals	QC-MRG2-2134853 003	----	Bismuth	7440-69-9	E440	229 % RRQC	70.0-130%	Recovery greater than upper control limit

Result Qualifiers

Qualifier	Description
RRQC	Refer to report comments for information regarding this QC result.

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 2530-A-1	E510	23-Jul-2025	31-Jul-2025	28 days	9 days	✓	01-Aug-2025	28 days	1 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2530-A-10	E510	23-Jul-2025	31-Jul-2025	28 days	9 days	✓	01-Aug-2025	28 days	1 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2530-A-11	E510	23-Jul-2025	31-Jul-2025	28 days	9 days	✓	01-Aug-2025	28 days	1 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2530-A-12	E510	23-Jul-2025	31-Jul-2025	28 days	9 days	✓	01-Aug-2025	28 days	1 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2530-A-2	E510	23-Jul-2025	31-Jul-2025	28 days	9 days	✓	01-Aug-2025	28 days	1 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2530-A-3	E510	23-Jul-2025	31-Jul-2025	28 days	9 days	✓	01-Aug-2025	28 days	1 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2530-A-4	E510	23-Jul-2025	31-Jul-2025	28 days	9 days	✓	01-Aug-2025	28 days	1 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2530-A-5	E510	23-Jul-2025	31-Jul-2025	28 days	9 days	✓	01-Aug-2025	28 days	1 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2530-A-6	E510	23-Jul-2025	31-Jul-2025	28 days	9 days	✓	01-Aug-2025	28 days	1 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2530-A-7	E510	23-Jul-2025	31-Jul-2025	28 days	9 days	✓	01-Aug-2025	28 days	1 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2530-A-8	E510	23-Jul-2025	31-Jul-2025	28 days	9 days	✓	01-Aug-2025	28 days	1 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
LDPE bag BA 2530-A-9	E510	23-Jul-2025	31-Jul-2025	28 days	9 days	✓	01-Aug-2025	28 days	1 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2530-A-1	E440	23-Jul-2025	31-Jul-2025	180 days	9 days	✓	01-Aug-2025	180 days	9 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2530-A-10	E440	23-Jul-2025	31-Jul-2025	180 days	9 days	✓	01-Aug-2025	180 days	9 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2530-A-11	E440	23-Jul-2025	31-Jul-2025	180 days	9 days	✓	01-Aug-2025	180 days	9 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2530-A-12	E440	23-Jul-2025	31-Jul-2025	180 days	9 days	✓	01-Aug-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 2530-A-2	E440	23-Jul-2025	31-Jul-2025	180 days	9 days	✓	01-Aug-2025	180 days	9 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2530-A-3	E440	23-Jul-2025	31-Jul-2025	180 days	9 days	✓	01-Aug-2025	180 days	9 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2530-A-4	E440	23-Jul-2025	31-Jul-2025	180 days	9 days	✓	01-Aug-2025	180 days	9 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2530-A-5	E440	23-Jul-2025	31-Jul-2025	180 days	9 days	✓	01-Aug-2025	180 days	9 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2530-A-6	E440	23-Jul-2025	31-Jul-2025	180 days	9 days	✓	01-Aug-2025	180 days	9 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2530-A-7	E440	23-Jul-2025	31-Jul-2025	180 days	9 days	✓	01-Aug-2025	180 days	9 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2530-A-8	E440	23-Jul-2025	31-Jul-2025	180 days	9 days	✓	01-Aug-2025	180 days	9 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
LDPE bag BA 2530-A-9	E440	23-Jul-2025	31-Jul-2025	180 days	9 days	✓	01-Aug-2025	180 days	9 days	✓
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2530-A-1	E144	23-Jul-2025	----	----	----		30-Jul-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 2530-A-10	E144	23-Jul-2025	----	----	----		30-Jul-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2530-A-11	E144	23-Jul-2025	----	----	----		30-Jul-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2530-A-12	E144	23-Jul-2025	----	----	----		30-Jul-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2530-A-2	E144	23-Jul-2025	----	----	----		30-Jul-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2530-A-3	E144	23-Jul-2025	----	----	----		30-Jul-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2530-A-4	E144	23-Jul-2025	----	----	----		30-Jul-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2530-A-5	E144	23-Jul-2025	----	----	----		30-Jul-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2530-A-6	E144	23-Jul-2025	----	----	----		30-Jul-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2530-A-7	E144	23-Jul-2025	----	----	----		30-Jul-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 2530-A-8	E144	23-Jul-2025	----	----	----		30-Jul-2025	----	----	
Physical Tests : Moisture Content by Gravimetry										
LDPE bag BA 2530-A-9	E144	23-Jul-2025	----	----	----		30-Jul-2025	----	----	
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2530-A-1	E108	23-Jul-2025	31-Jul-2025	30 days	9 days	✓	01-Aug-2025	30 days	9 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2530-A-10	E108	23-Jul-2025	31-Jul-2025	30 days	9 days	✓	01-Aug-2025	30 days	9 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2530-A-11	E108	23-Jul-2025	31-Jul-2025	30 days	9 days	✓	01-Aug-2025	30 days	9 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2530-A-12	E108	23-Jul-2025	31-Jul-2025	30 days	9 days	✓	01-Aug-2025	30 days	9 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2530-A-2	E108	23-Jul-2025	31-Jul-2025	30 days	9 days	✓	01-Aug-2025	30 days	9 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2530-A-3	E108	23-Jul-2025	31-Jul-2025	30 days	9 days	✓	01-Aug-2025	30 days	9 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2530-A-4	E108	23-Jul-2025	31-Jul-2025	30 days	9 days	✓	01-Aug-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 2530-A-5	E108	23-Jul-2025	31-Jul-2025	30 days	9 days	✓	01-Aug-2025	30 days	9 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2530-A-6	E108	23-Jul-2025	31-Jul-2025	30 days	9 days	✓	01-Aug-2025	30 days	9 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2530-A-7	E108	23-Jul-2025	31-Jul-2025	30 days	9 days	✓	01-Aug-2025	30 days	9 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2530-A-8	E108	23-Jul-2025	31-Jul-2025	30 days	9 days	✓	01-Aug-2025	30 days	9 days	✓
Physical Tests : pH by Meter (1:2 Soil:Water Extraction)										
LDPE bag BA 2530-A-9	E108	23-Jul-2025	31-Jul-2025	30 days	9 days	✓	01-Aug-2025	30 days	9 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2530-A-1	E512	30-Jul-2025	31-Jul-2025	35 days	8 days	✓	31-Jul-2025	35 days	8 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2530-A-10	E512	30-Jul-2025	31-Jul-2025	35 days	8 days	✓	31-Jul-2025	35 days	8 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2530-A-11	E512	30-Jul-2025	31-Jul-2025	35 days	8 days	✓	31-Jul-2025	35 days	8 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2530-A-12	E512	30-Jul-2025	31-Jul-2025	35 days	8 days	✓	31-Jul-2025	35 days	8 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2530-A-2	E512	30-Jul-2025	31-Jul-2025	35 days	8 days	✓	31-Jul-2025	35 days	8 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2530-A-3	E512	30-Jul-2025	31-Jul-2025	35 days	8 days	✓	31-Jul-2025	35 days	8 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2530-A-4	E512	30-Jul-2025	31-Jul-2025	35 days	8 days	✓	31-Jul-2025	35 days	8 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2530-A-5	E512	30-Jul-2025	31-Jul-2025	35 days	8 days	✓	31-Jul-2025	35 days	8 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2530-A-6	E512	30-Jul-2025	31-Jul-2025	35 days	8 days	✓	31-Jul-2025	35 days	8 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2530-A-7	E512	30-Jul-2025	31-Jul-2025	35 days	8 days	✓	31-Jul-2025	35 days	8 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2530-A-8	E512	30-Jul-2025	31-Jul-2025	35 days	8 days	✓	31-Jul-2025	35 days	8 days	✓
TCLP Metals : Mercury by CVAAS (TCLP)										
Glass vial - total (lab preserved) BA 2530-A-9	E512	30-Jul-2025	31-Jul-2025	35 days	8 days	✓	31-Jul-2025	35 days	8 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2530-A-1	E444	30-Jul-2025	31-Jul-2025	187 days	8 days	✓	01-Aug-2025	187 days	8 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2530-A-10	E444	30-Jul-2025	31-Jul-2025	187 days	8 days	✓	01-Aug-2025	187 days	8 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2530-A-11	E444	30-Jul-2025	31-Jul-2025	187 days	8 days	✓	01-Aug-2025	187 days	8 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2530-A-12	E444	30-Jul-2025	31-Jul-2025	187 days	8 days	✓	01-Aug-2025	187 days	8 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2530-A-2	E444	30-Jul-2025	31-Jul-2025	187 days	8 days	✓	01-Aug-2025	187 days	8 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2530-A-3	E444	30-Jul-2025	31-Jul-2025	187 days	8 days	✓	01-Aug-2025	187 days	8 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2530-A-4	E444	30-Jul-2025	31-Jul-2025	187 days	8 days	✓	01-Aug-2025	187 days	8 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2530-A-5	E444	30-Jul-2025	31-Jul-2025	187 days	8 days	✓	01-Aug-2025	187 days	8 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2530-A-6	E444	30-Jul-2025	31-Jul-2025	187 days	8 days	✓	01-Aug-2025	187 days	8 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2530-A-7	E444	30-Jul-2025	31-Jul-2025	187 days	8 days	✓	01-Aug-2025	187 days	8 days	✓

Matrix: **Soil/Solid**

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

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2530-A-8	E444	30-Jul-2025	31-Jul-2025	187 days	8 days	✓	01-Aug-2025	187 days	8 days	✓
TCLP Metals : Metals by CRC ICPMS (TCLP)										
HDPE - total (lab preserved) BA 2530-A-9	E444	30-Jul-2025	31-Jul-2025	187 days	8 days	✓	01-Aug-2025	187 days	8 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2530-A-1	EPP444	23-Jul-2025	30-Jul-2025	----	----		----	28 days	7 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2530-A-10	EPP444	23-Jul-2025	30-Jul-2025	----	----		----	28 days	7 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2530-A-11	EPP444	23-Jul-2025	30-Jul-2025	----	----		----	28 days	7 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2530-A-12	EPP444	23-Jul-2025	30-Jul-2025	----	----		----	28 days	7 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2530-A-2	EPP444	23-Jul-2025	30-Jul-2025	----	----		----	28 days	7 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2530-A-3	EPP444	23-Jul-2025	30-Jul-2025	----	----		----	28 days	7 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2530-A-4	EPP444	23-Jul-2025	30-Jul-2025	----	----		----	28 days	7 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 2530-A-5	EPP444	23-Jul-2025	30-Jul-2025	----	----		----	28 days	7 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2530-A-6	EPP444	23-Jul-2025	30-Jul-2025	----	----		----	28 days	7 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2530-A-7	EPP444	23-Jul-2025	30-Jul-2025	----	----		----	28 days	7 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2530-A-8	EPP444	23-Jul-2025	30-Jul-2025	----	----		----	28 days	7 days	✓
TCLP Metals : TCLP Leachate Preparation (Metals, Inorganics, and SVOCs)										
Lab Split - Non-Volatile Leach: 28 day HT (e.g. Hg, CrVI, PFAS) BA 2530-A-9	EPP444	23-Jul-2025	30-Jul-2025	----	----		----	28 days	7 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	2134855	1	14	7.1	5.0	✓
Moisture Content by Gravimetry	E144	2134856	1	12	8.3	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	2134854	1	19	5.2	5.0	✓
Metals by CRC ICPMS (TCLP)	E444	2137585	1	12	8.3	5.0	✓
Mercury in Soil/Solid by CVAAS	E510	2134853	1	19	5.2	5.0	✓
Mercury by CVAAS (TCLP)	E512	2137584	1	12	8.3	5.0	✓
Laboratory Control Samples (LCS)							
pH by Meter (1:2 Soil:Water Extraction)	E108	2134855	1	14	7.1	5.0	✓
Moisture Content by Gravimetry	E144	2134856	1	12	8.3	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	2134854	2	19	10.5	10.0	✓
Mercury in Soil/Solid by CVAAS	E510	2134853	2	19	10.5	10.0	✓
Method Blanks (MB)							
Moisture Content by Gravimetry	E144	2134856	1	12	8.3	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	2134854	1	19	5.2	5.0	✓
Metals by CRC ICPMS (TCLP)	E444	2137585	1	12	8.3	5.0	✓
Mercury in Soil/Solid by CVAAS	E510	2134853	1	19	5.2	5.0	✓
Mercury by CVAAS (TCLP)	E512	2137584	1	12	8.3	5.0	✓
Matrix Spikes (MS)							
Metals by CRC ICPMS (TCLP)	E444	2137585	1	12	8.3	5.0	✓
Mercury by CVAAS (TCLP)	E512	2137584	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	: **VA25B8547**	Page	: 1 of 11
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	: 28-Jul-2025 12:10
PO	: 1000497676	Date Analysis Commenced	: 30-Jul-2025
C-O-C number	: ----	Issue Date	: 05-Aug-2025 10:16
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
Ophelia Chiu	Department Manager - Organics	Vancouver Organics, Burnaby, British Columbia

General Comments

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

Key :

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

Workorder Comments

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

Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **Soil/Solid**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 2134855)											
VA25B8546-009	Anonymous	pH (1:2 soil:water)	----	E108	0.10	pH units	7.78	7.62	2.1%	5%	----
Physical Tests (QC Lot: 2134856)											
VA25B8547-001	BA 2530-A-1	Moisture	----	E144	0.25	%	19.0	18.5	2.89%	20%	----
Metals (QC Lot: 2134853)											
VA25B8546-009	Anonymous	Mercury	7439-97-6	E510	0.0500	mg/kg	1.22	1.65	30.0%	40%	----
Metals (QC Lot: 2134854)											
VA25B8546-009	Anonymous	Aluminum	7429-90-5	E440	50	mg/kg	5730	5750	0.334%	40%	----
		Antimony	7440-36-0	E440	0.10	mg/kg	2.91	2.82	3.34%	30%	----
		Arsenic	7440-38-2	E440	0.10	mg/kg	3.09	3.14	1.62%	30%	----
		Barium	7440-39-3	E440	0.50	mg/kg	223	217	2.96%	40%	----
		Beryllium	7440-41-7	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Bismuth	7440-69-9	E440	0.20	mg/kg	53.9	53.7	0.303%	30%	----
		Boron	7440-42-8	E440	5.0	mg/kg	11.8	11.3	0.5	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.020	mg/kg	1.65	1.67	0.780%	30%	----
		Calcium	7440-70-2	E440	50	mg/kg	24600	23900	3.01%	30%	----
		Chromium	7440-47-3	E440	0.50	mg/kg	43.9	46.4	5.52%	30%	----
		Cobalt	7440-48-4	E440	0.10	mg/kg	3.56	3.54	0.671%	30%	----
		Copper	7440-50-8	E440	0.50	mg/kg	440	437	0.856%	30%	----
		Iron	7439-89-6	E440	50	mg/kg	25400	25400	0.0445%	30%	----
		Lead	7439-92-1	E440	0.50	mg/kg	29.2	29.8	1.94%	40%	----
		Lithium	7439-93-2	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----
		Magnesium	7439-95-4	E440	20	mg/kg	5490	5580	1.66%	30%	----
		Manganese	7439-96-5	E440	1.0	mg/kg	344	357	3.77%	30%	----
		Molybdenum	7439-98-7	E440	0.10	mg/kg	11.0	10.8	2.03%	40%	----
		Nickel	7440-02-0	E440	0.50	mg/kg	20.1	21.8	8.26%	30%	----
		Phosphorus	7723-14-0	E440	50	mg/kg	23200	23200	0.232%	30%	----
		Potassium	7440-09-7	E440	100	mg/kg	1550	1480	5.00%	40%	----
		Selenium	7782-49-2	E440	0.20	mg/kg	8.61	8.36	2.99%	30%	----
		Silver	7440-22-4	E440	0.10	mg/kg	4.59	5.31	14.5%	40%	----
		Sodium	7440-23-5	E440	50	mg/kg	480	460	4.25%	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: 2134854) - continued											
VA25B8546-009	Anonymous	Strontium	7440-24-6	E440	0.50	mg/kg	111	110	0.941%	40%	----
		Sulfur	7704-34-9	E440	1000	mg/kg	16800	16800	0.307%	30%	----
		Thallium	7440-28-0	E440	0.050	mg/kg	0.066	0.067	0.002	Diff <2x LOR	----
		Tin	7440-31-5	E440	2.0	mg/kg	44.6	44.0	1.29%	40%	----
		Titanium	7440-32-6	E440	1.0	mg/kg	30.5	31.9	4.53%	40%	----
		Tungsten	7440-33-7	E440	0.50	mg/kg	5.21	5.21	0.0274%	30%	----
		Uranium	7440-61-1	E440	0.050	mg/kg	0.882	0.865	1.99%	30%	----
		Vanadium	7440-62-2	E440	0.20	mg/kg	9.30	9.35	0.541%	30%	----
		Zinc	7440-66-6	E440	2.0	mg/kg	1310	1350	3.11%	30%	----
		Zirconium	7440-67-7	E440	1.0	mg/kg	2.8	2.9	0.07	Diff <2x LOR	----
TCLP Metals (QC Lot: 2137584)											
VA25B8547-001	BA 2530-A-1	Mercury, TCLP	7439-97-6	E512	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
TCLP Metals (QC Lot: 2137585)											
VA25B8547-001	BA 2530-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	0.58	0.65	0.07	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	671	768	13.5%	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	0.922	1.02	10.0%	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	<2.5	<2.5	0	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	----

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: 2134856)						
Moisture	----	E144	0.25	%	<0.25	----
Metals (QCLot: 2134853)						
Mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 2134854)						
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	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 2134854) - continued						
Tin	7440-31-5	E440	2	mg/kg	<2.0	----
Titanium	7440-32-6	E440	1	mg/kg	<1.0	----
Tungsten	7440-33-7	E440	0.5	mg/kg	<0.50	----
Uranium	7440-61-1	E440	0.05	mg/kg	<0.050	----
Vanadium	7440-62-2	E440	0.2	mg/kg	<0.20	----
Zinc	7440-66-6	E440	2	mg/kg	<2.0	----
Zirconium	7440-67-7	E440	1	mg/kg	<1.0	----
TCLP Metals (QCLot: 2137584)						
Mercury, TCLP	7439-97-6	E512	0.001	mg/L	<0.0010	----
TCLP Metals (QCLot: 2137585)						
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: 2134855)									
pH (1:2 soil:water)	----	E108	----	pH units	6 pH units	99.8	95.0	105	----
Physical Tests (QCLot: 2134856)									
Moisture	----	E144	0.25	%	50 %	101	90.0	110	----
Metals (QCLot: 2134853)									
Mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	96.6	80.0	120	----
Metals (QCLot: 2134854)									
Aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	101	80.0	120	----
Antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	104	80.0	120	----
Arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	106	80.0	120	----
Barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	106	80.0	120	----
Beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	103	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	96.4	80.0	120	----
Cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	100	80.0	120	----
Calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	103	80.0	120	----
Chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	99.2	80.0	120	----
Cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	100	80.0	120	----
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	98.2	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	102	80.0	120	----
Lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	104	80.0	120	----
Magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	105	80.0	120	----
Manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	103	80.0	120	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	102	80.0	120	----
Nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	101	80.0	120	----
Phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	105	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	96.1	80.0	120	----
Sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	103	80.0	120	----
Strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	106	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: 2134854) - continued									
Thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	99.5	80.0	120	----
Tin	7440-31-5	E440	2	mg/kg	50 mg/kg	101	80.0	120	----
Titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	99.0	80.0	120	----
Tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	101	80.0	120	----
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	105	80.0	120	----
Vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	105	80.0	120	----
Zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	98.5	80.0	120	----
Zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	102	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: 2137584)										
VA25B8547-001	BA 2530-A-1	Mercury, TCLP	7439-97-6	E512	0.0030 mg/L	0.003 mg/L	99.8	50.0	140	----
TCLP Metals (QCLot: 2137585)										
VA25B8547-001	BA 2530-A-1	Antimony, TCLP	7440-36-0	E444	5.54 mg/L	5 mg/L	111	50.0	140	----
		Arsenic, TCLP	7440-38-2	E444	5.8 mg/L	5 mg/L	116	50.0	140	----
		Barium, TCLP	7440-39-3	E444	14.4 mg/L	12.5 mg/L	115	50.0	140	----
		Beryllium, TCLP	7440-41-7	E444	0.283 mg/L	0.25 mg/L	113	50.0	140	----
		Boron, TCLP	7440-42-8	E444	11.0 mg/L	10 mg/L	110	50.0	140	----
		Cadmium, TCLP	7440-43-9	E444	0.270 mg/L	0.25 mg/L	108	50.0	140	----
		Calcium, TCLP	7440-70-2	E444	ND mg/L	----	ND	50.0	140	----
		Chromium, TCLP	7440-47-3	E444	1.40 mg/L	1.25 mg/L	112	50.0	140	----
		Cobalt, TCLP	7440-48-4	E444	0.280 mg/L	0.25 mg/L	112	50.0	140	----
		Copper, TCLP	7440-50-8	E444	2.72 mg/L	2.5 mg/L	109	50.0	140	----
		Iron, TCLP	7439-89-6	E444	276 mg/L	250 mg/L	110	50.0	140	----
		Lead, TCLP	7439-92-1	E444	11.0 mg/L	10 mg/L	110	50.0	140	----
		Magnesium, TCLP	7439-95-4	E444	279 mg/L	250 mg/L	112	50.0	140	----
		Nickel, TCLP	7440-02-0	E444	2.75 mg/L	2.5 mg/L	110	50.0	140	----
		Selenium, TCLP	7782-49-2	E444	5.81 mg/L	5 mg/L	116	50.0	140	----
		Silver, TCLP	7440-22-4	E444	0.092 mg/L	0.1 mg/L	92.6	50.0	140	----
		Thallium, TCLP	7440-28-0	E444	5.5 mg/L	5 mg/L	111	50.0	140	----
		Uranium, TCLP	7440-61-1	E444	5.59 mg/L	5 mg/L	112	50.0	150	----
		Vanadium, TCLP	7440-62-2	E444	0.87 mg/L	0.75 mg/L	116	50.0	140	----
		Zinc, TCLP	7440-66-6	E444	10.6 mg/L	10 mg/L	106	50.0	140	----
		Zirconium, TCLP	7440-67-7	E444	0.9 mg/L	1 mg/L	92.1	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: 2134853)									
QC-2134853-003	MRCA-21	Mercury	7439-97-6	E510	0.068 mg/kg	97.8	70.0	130	----
Metals (QCLot: 2134854)									
QC-2134854-003	MRCA-21	Aluminum	7429-90-5	E440	22500 mg/kg	101	70.0	130	----
QC-2134854-003	MRCA-21	Antimony	7440-36-0	E440	24.8 mg/kg	93.2	70.0	130	----
QC-2134854-003	MRCA-21	Arsenic	7440-38-2	E440	21.2 mg/kg	94.9	70.0	130	----
QC-2134854-003	MRCA-21	Barium	7440-39-3	E440	788 mg/kg	101	70.0	130	----
QC-2134854-003	MRCA-21	Beryllium	7440-41-7	E440	1.82 mg/kg	107	70.0	130	----
QC-2134854-003	MRCA-21	Bismuth	7440-69-9	E440	1.78 mg/kg	# 229	70.0	130	RRQC
QC-2134854-003	MRCA-21	Cadmium	7440-43-9	E440	2.15 mg/kg	101	70.0	130	----
QC-2134854-003	MRCA-21	Calcium	7440-70-2	E440	4900 mg/kg	104	70.0	130	----
QC-2134854-003	MRCA-21	Chromium	7440-47-3	E440	56.9 mg/kg	96.4	70.0	130	----
QC-2134854-003	MRCA-21	Cobalt	7440-48-4	E440	32 mg/kg	97.4	70.0	130	----
QC-2134854-003	MRCA-21	Copper	7440-50-8	E440	969 mg/kg	93.2	70.0	130	----
QC-2134854-003	MRCA-21	Iron	7439-89-6	E440	32700 mg/kg	100	70.0	130	----
QC-2134854-003	MRCA-21	Lead	7439-92-1	E440	919 mg/kg	95.9	70.0	130	----
QC-2134854-003	MRCA-21	Lithium	7439-93-2	E440	47.3 mg/kg	108	70.0	130	----
QC-2134854-003	MRCA-21	Magnesium	7439-95-4	E440	7780 mg/kg	99.8	70.0	130	----
QC-2134854-003	MRCA-21	Manganese	7439-96-5	E440	8640 mg/kg	98.0	70.0	130	----
QC-2134854-003	MRCA-21	Molybdenum	7439-98-7	E440	25.1 mg/kg	97.1	70.0	130	----
QC-2134854-003	MRCA-21	Nickel	7440-02-0	E440	1000 mg/kg	98.7	70.0	130	----
QC-2134854-003	MRCA-21	Phosphorus	7723-14-0	E440	660 mg/kg	104	70.0	130	----
QC-2134854-003	MRCA-21	Potassium	7440-09-7	E440	10800 mg/kg	100	70.0	130	----
QC-2134854-003	MRCA-21	Selenium	7782-49-2	E440	1.04 mg/kg	98.8	60.0	140	----
QC-2134854-003	MRCA-21	Silver	7440-22-4	E440	8.98 mg/kg	96.4	70.0	130	----
QC-2134854-003	MRCA-21	Sodium	7440-23-5	E440	1770 mg/kg	108	70.0	130	----
QC-2134854-003	MRCA-21	Strontium	7440-24-6	E440	41 mg/kg	97.5	70.0	130	----
QC-2134854-003	MRCA-21	Sulfur	7704-34-9	E440	3940 mg/kg	93.4	50.0	150	----
QC-2134854-003	MRCA-21	Thallium	7440-28-0	E440	0.907 mg/kg	97.4	70.0	130	----
QC-2134854-003	MRCA-21	Tin	7440-31-5	E440	3.79 mg/kg	96.1	40.0	160	----
QC-2134854-003	MRCA-21	Titanium	7440-32-6	E440	2790 mg/kg	97.9	70.0	130	----
QC-2134854-003	MRCA-21	Tungsten	7440-33-7	E440	6.99 mg/kg	108	70.0	130	----
QC-2134854-003	MRCA-21	Uranium	7440-61-1	E440	3.97 mg/kg	90.9	70.0	130	----
QC-2134854-003	MRCA-21	Vanadium	7440-62-2	E440	66.2 mg/kg	97.4	70.0	130	----

Sub-Matrix:

					Reference Material (RM) Report				
					RM Target	Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Concentration	RM	Low	High	Qualifier
Metals (QCLot: 2134854) - continued									
QC-2134854-003	MRCA-21	Zinc	7440-66-6	E440	828 mg/kg	96.2	70.0	130	----
QC-2134854-003	MRCA-21	Zirconium	7440-67-7	E440	6.91 mg/kg	98.9	70.0	130	----

Qualifiers

Qualifier	Description
RRQC	*Refer to report comments for information regarding this QC result.*

ALS Environmental

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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**	
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): B8547

ALS Contact: **Sampler:**

Please indicate below Filtered, Preserved or both (F, P, F/P)

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 2530-A-1	23 Jul 2025	9:00	Soil	X	X		X	1
	BA 2530-A-2	23 Jul 2025	9:00	Soil	X	X		X	1
	BA 2530-A-3	23 Jul 2025	9:00	Soil	X	X		X	1
	BA 2530-A-4	23 Jul 2025	9:00	Soil	X	X		X	1
	BA 2530-A-5	23 Jul 2025	9:00	Soil	X	X		X	1
	BA 2530-A-6	23 Jul 2025	9:00	Soil	X	X		X	1
	BA 2530-A-7	23 Jul 2025	9:00	Soil	X	X		X	1
	BA 2530-A-8	23 Jul 2025	9:00	Soil	X	X		X	1
	BA 2530-A-9	23 Jul 2025	9:00	Soil	X	X		X	1
	BA 2530-A-10	23 Jul 2025	9:00	Soil	X	X		X	1
	BA 2530-A-11	23 Jul 2025	9:00	Soil	X	X		X	1
	BA 2530-A-12	23 Jul 2025	9:00	Soil	X	X		X	1
water Aquatic									

Environmental Division
Vancouver
Work Order Reference
VA25B8547

Telephone : +1 604 253 4188

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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
	28/07/25	09:20				23.6°C		28 July	1210	

GENF 20.00 Front

ALS Environmental

Chain of Custody / Analytical Request Form

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

COC # _____

Page 1 of 1

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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	
			brent.kirkpatrick@metrovancouver.org	
			Sarah.Wellman@metrovancouver.org	

Invoice To	Same as Report ? Veolia Water Canada	Client / Project Information	
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): B8547

ALS Contact: | Sampler:

Analysis Request — Please indicate below Filtered, Preserved or both (F, P, F/P)

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	BA 2530-A-5	23 Jul 2025	9:00	Soil	X	X		X	1
	BA 2530-A-6	23 Jul 2025	9:00	Soil	X	X		X	1
	BA 2530-A-7	23 Jul 2025	9:00	Soil	X	X		X	1
	BA 2530-A-8	23 Jul 2025	9:00	Soil	X	X		X	1
	BA 2530-A-9	23 Jul 2025	9:00	Soil	X	X		X	1
	BA 2530-A-10	23 Jul 2025	9:00	Soil	X	X		X	1
	BA 2530-A-11	23 Jul 2025	9:00	Soil	X	X		X	1
	BA 2530-A-12	23 Jul 2025	9:00	Soil	X	X		X	1
water Aquatic									

Environmental Division Vancouver
Work Order Reference
VA25B8547
Telephone : +1 604 253 4188

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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
	28/07/25	09:20				23.6°C	PC	28 July	1210	

GENF 20.00 Front

Bottom Ash Worksheet

Date sample composited (DD/MM/YYYY)	28 07 2025
Person doing the sampling	EL
Total Sample Weight before processing, kg	74.15
Weight of Material >3/8", kg	16.55
Weight of Material that cannot be processed to <3/8" (metal, wood, etc), kg	7.33
Final Total weight of Processed Bottom Ash, kg	54.2

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

Completely fill twelve (12) 500ml sample containers and label each with "Bottom Ash" and the week the ash composite is from, i.e. "June 9-15, 2019"