Bottom Ash Data

2020 Week 27

The following analytical report was sent to the Ministry of Environment and Climate Change Strategy on July 16, 2020. The data represents bottom ash composite results for week 27 of 2020 (June 28, 2020 to July 4, 2020).

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

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **VA20A9816**	Page	: 1 of 11
Client	: **Covanta Burnaby Renewable Energy, ULC**	Laboratory	: Vancouver - Environmental
Contact	: Steve McKinney	Account Manager	: Brent Mack
Address	: 5150 Riverbend Drive Burnaby BC Canada V3N 4V3	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: 604 521 1025	Telephone	: +1 604 253 4188
Project	: Weekly Bottom Ash-Suite	Date Samples Received	: 07-Jul-2020 11:15
PO	: VANCO 0000049378	Date Analysis Commenced	: 08-Jul-2020
C-O-C number	: ----	Issue Date	: 14-Jul-2020 16:32
Sampler	: ----		
Site	: ----		
Quote number	: Standing Offer (BC work)		
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*
Aaron Yu	Laboratory Analyst	Metals, Burnaby, British Columbia
Brieanna Allen	Department Manager - Organics	Organics, Burnaby, British Columbia
Robin Weeks	Team Leader - Metals	Metals, Burnaby, British Columbia
Shaneel Dayal	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 in reports identified as "Preliminary Report" are considered authorized for use.

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	BA2027-A-1	BA2027-A-2	BA2027-A-3	BA2027-A-4	BA2027-A-5
					Client sampling date / time	01-Jul-2020 09:00	01-Jul-2020 09:00	01-Jul-2020 09:00	01-Jul-2020 09:00	01-Jul-2020 09:00
						VA20A9816-001	VA20A9816-002	VA20A9816-003	VA20A9816-004	VA20A9816-005
						Result	Result	Result	Result	Result
Physical Tests										
moisture	----	E144	0.25	%		21.1	20.8	20.4	19.5	21.0
pH (1:2 soil:water)	----	E108	0.10	pH units		11.3	11.7	11.2	11.4	11.4
Metals										
aluminum	7429-90-5	E440	50	mg/kg		28700	36900	38700	35000	46500
antimony	7440-36-0	E440	0.10	mg/kg		226	119	214	102	108
arsenic	7440-38-2	E440	0.10	mg/kg		42.5	39.1	45.2	36.1	29.0
barium	7440-39-3	E440	0.50	mg/kg		503	627	497	552	487
beryllium	7440-41-7	E440	0.10	mg/kg		0.43	0.40	0.37	0.36	0.41
bismuth	7440-69-9	E440	0.20	mg/kg		6.00	12.6	5.62	7.68	8.27
boron	7440-42-8	E440	5.0	mg/kg		182	231	198	161	182
cadmium	7440-43-9	E440	0.020	mg/kg		13.8	15.5	14.3	13.7	11.7
calcium	7440-70-2	E440	50	mg/kg		121000	119000	127000	125000	121000
chromium	7440-47-3	E440	0.50	mg/kg		173	134	439	161	194
cobalt	7440-48-4	E440	0.10	mg/kg		25.4	26.4	55.6	28.9	20.0
copper	7440-50-8	E440	0.50	mg/kg		9130	1960	1520	5000	2840
iron	7439-89-6	E440	50	mg/kg		70400	62800	62200	54900	66100
lead	7439-92-1	E440	0.50	mg/kg		625	355	4100	917	3370
lithium	7439-93-2	E440	2.0	mg/kg		78.0	16.9	26.0	16.3	39.7
magnesium	7439-95-4	E440	20	mg/kg		11700	12600	11900	11700	9110
manganese	7439-96-5	E440	1.0	mg/kg		760	620	1390	2680	846
mercury	7439-97-6	E510	0.0500	mg/kg		0.0797	<0.0500	<0.0500	0.0691	<0.0500
molybdenum	7439-98-7	E440	0.10	mg/kg		20.7	22.6	29.8	22.3	25.2
nickel	7440-02-0	E440	0.50	mg/kg		146	203	232	146	96.1
phosphorus	7723-14-0	E440	50	mg/kg		9320	9180	9480	8170	10200
potassium	7440-09-7	E440	100	mg/kg		4830	4810	4490	4600	4570
selenium	7782-49-2	E440	0.20	mg/kg		0.57	0.45	0.61	0.44	0.33
silver	7440-22-4	E440.Ag	0.10	mg/kg		3.29	----	----	----	----
silver	7440-22-4	E440	0.10	mg/kg		----	4.00	6.12	4.44	6.02
sodium	7440-23-5	E440	50	mg/kg		13800	14000	12800	12600	13500
strontium	7440-24-6	E440	0.50	mg/kg		430	305	282	283	284
sulfur	7704-34-9	E440	1000	mg/kg		9600	10600	11200	9600	9800

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	BA2027-A-1	BA2027-A-2	BA2027-A-3	BA2027-A-4	BA2027-A-5
					Client sampling date / time	01-Jul-2020 09:00	01-Jul-2020 09:00	01-Jul-2020 09:00	01-Jul-2020 09:00	01-Jul-2020 09:00
						VA20A9816-001	VA20A9816-002	VA20A9816-003	VA20A9816-004	VA20A9816-005
						Result	Result	Result	Result	Result
Metals										
thallium	7440-28-0	E440	0.050	mg/kg		<0.050	<0.050	0.054	0.149	<0.050
tin	7440-31-5	E440	2.0	mg/kg		237	147	135	102	215
titanium	7440-32-6	E440	1.0	mg/kg		716	1700	863	856	706
tungsten	7440-33-7	E440	0.50	mg/kg		9.71	8.86	9.51	7.75	7.83
uranium	7440-61-1	E440	0.050	mg/kg		3.32	3.39	3.35	3.12	3.43
vanadium	7440-62-2	E440	0.20	mg/kg		34.8	34.6	37.6	39.1	35.4
zinc	7440-66-6	E440	2.0	mg/kg		5330	3570	3500	10000	7250
zirconium	7440-67-7	E440	1.0	mg/kg		1.2	2.5	1.8	1.4	2.0
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444	0.010	pH units		11.7	11.7	11.6	11.7	11.6
pH, TCLP 2nd preliminary	----	EPP444	0.010	pH units		9.20	9.14	9.04	8.79	8.96
pH, TCLP extraction fluid initial	----	EPP444	0.010	pH units		2.91	2.91	2.91	2.91	2.91
pH, TCLP final	----	EPP444	0.010	pH units		6.87	6.64	6.90	6.64	6.31
antimony, TCLP	7440-36-0	E444	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
arsenic, TCLP	7440-38-2	E444	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
barium, TCLP	7440-39-3	E444	2.5	mg/L		<2.5	<2.5	<2.5	<2.5	<2.5
beryllium, TCLP	7440-41-7	E444	0.025	mg/L		<0.025	<0.025	<0.025	<0.025	<0.025
boron, TCLP	7440-42-8	E444	0.50	mg/L		1.78	1.86	1.80	1.98	1.92
cadmium, TCLP	7440-43-9	E444	0.050	mg/L		0.209	0.311	0.183	0.195	0.249
calcium, TCLP	7440-70-2	E444	10	mg/L		1760	1730	1830	1810	1910
chromium, TCLP	7440-47-3	E444	0.25	mg/L		<0.25	<0.25	<0.25	<0.25	<0.25
cobalt, TCLP	7440-48-4	E444	0.050	mg/L		0.732	0.401	0.403	1.13	0.407
copper, TCLP	7440-50-8	E444	0.050	mg/L		0.521	0.558	0.454	0.545	1.10
iron, TCLP	7439-89-6	E444	5.0	mg/L		<5.0	<5.0	<5.0	<5.0	<5.0
lead, TCLP	7439-92-1	E444	0.25	mg/L		<0.25	<0.25	<0.25	<0.25	<0.25
magnesium, TCLP	7439-95-4	E444	2.5	mg/L		127	125	135	128	138
mercury, TCLP	7439-97-6	E512	0.0100	mg/L		<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
nickel, TCLP	7440-02-0	E444	0.25	mg/L		0.41	0.34	0.35	2.58	0.40
selenium, TCLP	7782-49-2	E444	1.00	mg/L		<1.00	<1.00	<1.00	<1.00	<1.00
silver, TCLP	7440-22-4	E444	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
thallium, TCLP	7440-28-0	E444	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
vanadium, TCLP	7440-62-2	E444	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	LOR	Unit	Client sample ID	BA2027-A-1	BA2027-A-2	BA2027-A-3	BA2027-A-4	BA2027-A-5
					Client sampling date / time	01-Jul-2020 09:00	01-Jul-2020 09:00	01-Jul-2020 09:00	01-Jul-2020 09:00	01-Jul-2020 09:00
						VA20A9816-001	VA20A9816-002	VA20A9816-003	VA20A9816-004	VA20A9816-005
						Result	Result	Result	Result	Result
TCLP Metals										
zinc, TCLP	7440-66-6	E444	0.50	mg/L		18.8	25.5	17.5	23.2	44.7

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	LOR	Unit	Client sample ID	BA2027-A-6	BA2027-A-7	BA2027-A-8	BA2027-A-9	BA2027-A-10
					Client sampling date / time	01-Jul-2020 09:00	01-Jul-2020 09:00	01-Jul-2020 09:00	01-Jul-2020 09:00	01-Jul-2020 09:00
						VA20A9816-006	VA20A9816-007	VA20A9816-008	VA20A9816-009	VA20A9816-010
						Result	Result	Result	Result	Result
Physical Tests										
moisture	----	E144	0.25	%		20.2	20.9	20.9	20.7	20.7
pH (1:2 soil:water)	----	E108	0.10	pH units		11.5	11.4	11.4	11.0	11.2
Metals										
aluminum	7429-90-5	E440	50	mg/kg		32800	35500	36200	38200	43300
antimony	7440-36-0	E440	0.10	mg/kg		102	105	109	106	109
arsenic	7440-38-2	E440	0.10	mg/kg		30.1	34.0	34.0	33.2	38.3
barium	7440-39-3	E440	0.50	mg/kg		552	575	631	653	570
beryllium	7440-41-7	E440	0.10	mg/kg		0.38	0.42	0.37	0.39	0.40
bismuth	7440-69-9	E440	0.20	mg/kg		2120	5.19	6.51	5.31	10.8
boron	7440-42-8	E440	5.0	mg/kg		245	206	175	196	168
cadmium	7440-43-9	E440	0.020	mg/kg		12.8	13.1	14.1	14.0	14.2
calcium	7440-70-2	E440	50	mg/kg		120000	122000	116000	126000	117000
chromium	7440-47-3	E440	0.50	mg/kg		162	261	192	153	209
cobalt	7440-48-4	E440	0.10	mg/kg		48.7	23.9	30.2	32.3	26.2
copper	7440-50-8	E440	0.50	mg/kg		1680	1740	1450	2460	3940
iron	7439-89-6	E440	50	mg/kg		69800	61700	67000	66900	56400
lead	7439-92-1	E440	0.50	mg/kg		391	318	1150	343	342
lithium	7439-93-2	E440	2.0	mg/kg		17.2	16.4	16.4	23.2	19.8
magnesium	7439-95-4	E440	20	mg/kg		12100	11000	10700	10700	10400
manganese	7439-96-5	E440	1.0	mg/kg		784	838	721	3240	826
mercury	7439-97-6	E510	0.0500	mg/kg		<0.0500	<0.0500	0.0535	<0.0500	<0.0500
molybdenum	7439-98-7	E440	0.10	mg/kg		22.6	30.4	27.0	22.9	39.4
nickel	7440-02-0	E440	0.50	mg/kg		140	189	175	273	158
phosphorus	7723-14-0	E440	50	mg/kg		8370	9040	9940	9100	8630
potassium	7440-09-7	E440	100	mg/kg		4740	5030	4900	5660	4600
selenium	7782-49-2	E440	0.20	mg/kg		0.37	0.44	0.37	0.35	0.39
silver	7440-22-4	E440	0.10	mg/kg		4.10	4.14	3.58	3.79	4.54
sodium	7440-23-5	E440	50	mg/kg		13200	13900	14600	16000	14300
strontium	7440-24-6	E440	0.50	mg/kg		505	298	294	308	632
sulfur	7704-34-9	E440	1000	mg/kg		9700	10000	10300	11000	10100
thallium	7440-28-0	E440	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
tin	7440-31-5	E440	2.0	mg/kg		136	101	196	112	108

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	BA2027-A-6	BA2027-A-7	BA2027-A-8	BA2027-A-9	BA2027-A-10
					Client sampling date / time	01-Jul-2020 09:00	01-Jul-2020 09:00	01-Jul-2020 09:00	01-Jul-2020 09:00	01-Jul-2020 09:00
						VA20A9816-006	VA20A9816-007	VA20A9816-008	VA20A9816-009	VA20A9816-010
						Result	Result	Result	Result	Result
Metals										
titanium	7440-32-6	E440	1.0	mg/kg		826	965	974	967	1470
tungsten	7440-33-7	E440	0.50	mg/kg		8.31	12.2	8.91	10.4	28.9
uranium	7440-61-1	E440	0.050	mg/kg		3.47	4.61	3.88	3.66	3.44
vanadium	7440-62-2	E440	0.20	mg/kg		39.5	42.4	39.8	37.2	40.1
zinc	7440-66-6	E440	2.0	mg/kg		4200	4860	3670	5910	3980
zirconium	7440-67-7	E440	1.0	mg/kg		1.1	1.3	1.4	1.4	3.0
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444	0.010	pH units		11.6	11.8	11.7	11.7	11.8
pH, TCLP 2nd preliminary	----	EPP444	0.010	pH units		9.17	8.89	9.16	9.09	9.10
pH, TCLP extraction fluid initial	----	EPP444	0.010	pH units		2.91	2.91	2.91	2.91	2.91
pH, TCLP final	----	EPP444	0.010	pH units		6.16	6.60	6.70	6.63	6.59
antimony, TCLP	7440-36-0	E444	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
arsenic, TCLP	7440-38-2	E444	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
barium, TCLP	7440-39-3	E444	2.5	mg/L		<2.5	<2.5	<2.5	<2.5	<2.5
beryllium, TCLP	7440-41-7	E444	0.025	mg/L		<0.025	<0.025	<0.025	<0.025	<0.025
boron, TCLP	7440-42-8	E444	0.50	mg/L		1.95	1.74	1.83	1.78	1.72
cadmium, TCLP	7440-43-9	E444	0.050	mg/L		0.403	0.210	0.172	0.194	0.217
calcium, TCLP	7440-70-2	E444	10	mg/L		1970	1690	1790	1810	1750
chromium, TCLP	7440-47-3	E444	0.25	mg/L		<0.25	<0.25	<0.25	<0.25	<0.25
cobalt, TCLP	7440-48-4	E444	0.050	mg/L		0.541	0.944	0.294	0.610	1.60
copper, TCLP	7440-50-8	E444	0.050	mg/L		0.964	0.651	0.648	0.399	0.539
iron, TCLP	7439-89-6	E444	5.0	mg/L		<5.0	<5.0	<5.0	<5.0	<5.0
lead, TCLP	7439-92-1	E444	0.25	mg/L		0.58	<0.25	<0.25	<0.25	<0.25
magnesium, TCLP	7439-95-4	E444	2.5	mg/L		135	121	117	120	121
mercury, TCLP	7439-97-6	E512	0.0100	mg/L		<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
nickel, TCLP	7440-02-0	E444	0.25	mg/L		0.42	0.34	0.36	0.34	0.45
selenium, TCLP	7782-49-2	E444	1.00	mg/L		<1.00	<1.00	<1.00	<1.00	<1.00
silver, TCLP	7440-22-4	E444	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
thallium, TCLP	7440-28-0	E444	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
vanadium, TCLP	7440-62-2	E444	0.15	mg/L		<0.15	<0.15	<0.15	<0.15	<0.15
zinc, TCLP	7440-66-6	E444	0.50	mg/L		51.8	24.6	26.9	26.9	34.3

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	LOR	Unit	Client sample ID	BA2027-A-11	BA2027-A-12	----	----	----
					Client sampling date / time	01-Jul-2020 09:00	01-Jul-2020 09:00	----	----	----
						VA20A9816-011	VA20A9816-012	--------	--------	--------
						Result	Result	----	----	----
Physical Tests										
moisture	----	E144	0.25	%		20.5	18.8	----	----	----
pH (1:2 soil:water)	----	E108	0.10	pH units		11.4	11.3	----	----	----
Metals										
aluminum	7429-90-5	E440	50	mg/kg		35400	38100	----	----	----
antimony	7440-36-0	E440	0.10	mg/kg		112	98.6	----	----	----
arsenic	7440-38-2	E440	0.10	mg/kg		29.5	30.3	----	----	----
barium	7440-39-3	E440	0.50	mg/kg		639	534	----	----	----
beryllium	7440-41-7	E440	0.10	mg/kg		0.36	0.36	----	----	----
bismuth	7440-69-9	E440	0.20	mg/kg		4.70	10.2	----	----	----
boron	7440-42-8	E440	5.0	mg/kg		187	280	----	----	----
cadmium	7440-43-9	E440	0.020	mg/kg		14.6	11.4	----	----	----
calcium	7440-70-2	E440	50	mg/kg		122000	110000	----	----	----
chromium	7440-47-3	E440	0.50	mg/kg		175	143	----	----	----
cobalt	7440-48-4	E440	0.10	mg/kg		29.4	38.3	----	----	----
copper	7440-50-8	E440	0.50	mg/kg		2230	1600	----	----	----
iron	7439-89-6	E440	50	mg/kg		59600	63200	----	----	----
lead	7439-92-1	E440	0.50	mg/kg		392	549	----	----	----
lithium	7439-93-2	E440	2.0	mg/kg		17.8	15.8	----	----	----
magnesium	7439-95-4	E440	20	mg/kg		10900	10600	----	----	----
manganese	7439-96-5	E440	1.0	mg/kg		816	1390	----	----	----
mercury	7439-97-6	E510	0.0500	mg/kg		<0.0500	<0.0500	----	----	----
molybdenum	7439-98-7	E440	0.10	mg/kg		21.9	32.8	----	----	----
nickel	7440-02-0	E440	0.50	mg/kg		108	128	----	----	----
phosphorus	7723-14-0	E440	50	mg/kg		9040	9080	----	----	----
potassium	7440-09-7	E440	100	mg/kg		4690	5060	----	----	----
selenium	7782-49-2	E440	0.20	mg/kg		0.34	0.31	----	----	----
silver	7440-22-4	E440	0.10	mg/kg		4.39	3.20	----	----	----
sodium	7440-23-5	E440	50	mg/kg		14100	12900	----	----	----
strontium	7440-24-6	E440	0.50	mg/kg		391	277	----	----	----
sulfur	7704-34-9	E440	1000	mg/kg		10000	9600	----	----	----
thallium	7440-28-0	E440	0.050	mg/kg		<0.050	<0.050	----	----	----
tin	7440-31-5	E440	2.0	mg/kg		321	90.2	----	----	----

Analytical Results

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

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	BA2027-A-11	BA2027-A-12	----	----	----
					Client sampling date / time	01-Jul-2020 09:00	01-Jul-2020 09:00	----	----	----
						VA20A9816-011	VA20A9816-012	--------	--------	--------
						Result	Result	----	----	----
Metals										
titanium	7440-32-6	E440	1.0	mg/kg		992	773	----	----	----
tungsten	7440-33-7	E440	0.50	mg/kg		9.28	9.10	----	----	----
uranium	7440-61-1	E440	0.050	mg/kg		3.38	3.46	----	----	----
vanadium	7440-62-2	E440	0.20	mg/kg		37.2	36.6	----	----	----
zinc	7440-66-6	E440	2.0	mg/kg		3300	4480	----	----	----
zirconium	7440-67-7	E440	1.0	mg/kg		1.6	1.6	----	----	----
TCLP Metals										
pH, TCLP 1st preliminary	----	EPP444	0.010	pH units		11.7	11.7	----	----	----
pH, TCLP 2nd preliminary	----	EPP444	0.010	pH units		8.99	9.13	----	----	----
pH, TCLP extraction fluid initial	----	EPP444	0.010	pH units		2.91	2.91	----	----	----
pH, TCLP final	----	EPP444	0.010	pH units		6.21	6.58	----	----	----
antimony, TCLP	7440-36-0	E444	1.0	mg/L		<1.0	<1.0	----	----	----
arsenic, TCLP	7440-38-2	E444	1.0	mg/L		<1.0	<1.0	----	----	----
barium, TCLP	7440-39-3	E444	2.5	mg/L		<2.5	<2.5	----	----	----
beryllium, TCLP	7440-41-7	E444	0.025	mg/L		<0.025	<0.025	----	----	----
boron, TCLP	7440-42-8	E444	0.50	mg/L		1.85	1.83	----	----	----
cadmium, TCLP	7440-43-9	E444	0.050	mg/L		0.292	0.393	----	----	----
calcium, TCLP	7440-70-2	E444	10	mg/L		1980	1790	----	----	----
chromium, TCLP	7440-47-3	E444	0.25	mg/L		<0.25	<0.25	----	----	----
cobalt, TCLP	7440-48-4	E444	0.050	mg/L		0.826	1.84	----	----	----
copper, TCLP	7440-50-8	E444	0.050	mg/L		0.945	0.573	----	----	----
iron, TCLP	7439-89-6	E444	5.0	mg/L		<5.0	<5.0	----	----	----
lead, TCLP	7439-92-1	E444	0.25	mg/L		<0.25	<0.25	----	----	----
magnesium, TCLP	7439-95-4	E444	2.5	mg/L		138	124	----	----	----
mercury, TCLP	7439-97-6	E512	0.0100	mg/L		<0.0100	<0.0100	----	----	----
nickel, TCLP	7440-02-0	E444	0.25	mg/L		0.45	0.31	----	----	----
selenium, TCLP	7782-49-2	E444	1.00	mg/L		<1.00	<1.00	----	----	----
silver, TCLP	7440-22-4	E444	0.050	mg/L		<0.050	<0.050	----	----	----
thallium, TCLP	7440-28-0	E444	1.0	mg/L		<1.0	<1.0	----	----	----
vanadium, TCLP	7440-62-2	E444	0.15	mg/L		<0.15	<0.15	----	----	----
zinc, TCLP	7440-66-6	E444	0.50	mg/L		51.4	22.5	----	----	----

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