



Weston Solutions, Inc.
Suite 201
1090 King Georges Post Road
Edison, New Jersey 08837-3703
732-585-4400 • Fax: 732-225-7037
www.westonsolutions.com

The Trusted Integrator for Sustainable Solutions

REMOVAL SUPPORT TEAM 2
EPA CONTRACT EP-W-06-072

June 12, 2013

Ms. Kimberly Staiger, On-Scene Coordinator
U.S. Environmental Protection Agency
Removal Action Branch
2890 Woodbridge Avenue
Edison, NJ 08837

EPA CONTRACT NO: EP-W-06-072

TDD NO: TO-0027-0097

DOCUMENT CONTROL NO: RST2-02-F-2413

**SUBJECT: FINAL SOIL SAMPLING TRIP REPORT – BARTH SMELTING
CORPORATION SITE, 99 CHAPEL STREET, NEWARK, ESSEX
COUNTY, NEW JERSEY**

Dear Ms. Staiger:

Enclosed please find the Final Soil Sampling Trip Report for the sampling event conducted at the Barth Smelting Corporation Site located at 99 Chapel Street, Newark, Essex County, New Jersey. The sampling event was conducted on March 26, 2013. Per your request, a separate Soil Sampling Trip Report will be submitted for the Terrell Homes portion of the Site. The U.S. Environmental Protection Agency comments regarding the draft version of the report have been incorporated. If you have any questions or comments, please contact me at (732) 585-4441.

Sincerely,

WESTON SOLUTIONS, INC.

Scott T. Snyder, CHMM
RST 2 Site Project Manager/Group Leader

Enclosure
cc: TDD File No.: TO-0027-0097

FINAL SOIL SAMPLING TRIP REPORT

SITE NAME: Barth Smelting Corporation Site
DC No.: RST2-02-F-2413
TDD No.: TO-0027-0097

SAMPLING DATE: March 26, 2013

EPA ID NO.: NJN008010373

1. Site Location: Barth Smelting Corporation Site
99 Chapel Street, Newark, Essex County, New Jersey
(Refer to Attachment A, Figure 1 – Site Location Map)

2. Sample Summary:

On March 26, 2013, Weston Solutions, Inc., Removal Support Team 2 (RST 2) mobilized to the Barth Smelting Corporation Site (the Site) to conduct soil sampling activities. As part of the sampling event, RST 2 collected a total of 42 soil samples, including two field duplicates, from the 99 Chapel Street portion of the site. As part of the soil sampling event, RST 2 also collected one rinsate blank sample. With the exception of the five soil samples collected manually using a hand-driven bucket auger, samples were collected using Geoprobe® direct-push method. A total of 42 soil samples and one rinsate blank sample were submitted to the U.S. Environmental Protection Agency (EPA) Region II Division of Environmental Science and Assessment (DESA) laboratory in Edison, New Jersey for target analyte list (TAL) metal (including mercury and tin) analysis. Refer to Attachment B, Table 1 for sample collection information.

3. Laboratories Receiving Samples:

The following laboratories were utilized during the soil sampling event:

Sample Matrix	Analysis	Laboratory
Soil	TAL Metals (including Hg and Sn)	EPA Region II DESA Laboratory 2890 Woodbridge Ave. Building 209, MS-230 Edison, NJ 08837
Rinsate Blank		

TAL = Target Analyte List Sn = Tin
Hg = Mercury EPA = U.S. Environmental Protection Agency
DESA = Division of Environmental Science and Assessment

4. Sample Dispatch Data:

On March 27, 2013, RST 2 hand-delivered 42 soil samples, including two field duplicates, and one rinsate blank sample to DESA, located in Edison, New Jersey, for TAL metal (including mercury and tin) analysis. All samples were delivered under Chain of Custody Record Number 2-032713-091826-0001.

5. On-Site Personnel:

Name	Representing	Duties On-Site
Kimberly Staiger	EPA, Region II	On-Scene Coordinator
Scott Snyder	RST 2, Region II	Site Project Manager, Site Health & Safety, Sample Management, Site QA/QC, Global Positioning System (GPS) Data Collection, and Geoprobe [®] Oversight
Dipa Chavan	RST 2, Region II	Sampler
John Rush	TPI, Inc.	Geoprobe [®] Operator
George Demitry	TPI, Inc.	Assistant Driller

6. Site Background and Description:

The Site is located in the Ironbound Section of Newark, New Jersey, adjacent to the Passaic River. The Ironbound section of Newark is historically an industrialized neighborhood. The area of the Site under investigation has been industrialized since the late 1800s. The Site is currently occupied by various maritime shipping and maintenance facilities. Barth Smelting Corp. operated on Block 2442, Lots 10, 11, 12 from at least 1946 until approximately 1982, and produced brass and bronze ingots and also worked with non-ferrous metals. Prior operators include General Lead Batteries, a manufacturer of lead acid batteries, and the New Jersey Zinc Company, a former zinc smelter. Barth was listed as an unrecognized Battery Lead Smelter site with a paper titled “Discovering Unrecognized Lead Smelting Sites by Historical Methods” written by William Eckel et al, and published in the American Journal of Public Health, April 2001, however, several resources exist labeling Barth Smelting as a secondary copper smelting facility. The New Jersey Zinc and Iron Company, also known as the Newark Zinc Works, formerly operated on the property now occupied by the Newark Housing Authority’s Terrell Homes and also on the property formerly occupied by Barth Smelting. The Zinc Works was one of the first commercial zinc oxide plants in the United States and operated on Chapel Street from 1848 to 1910. In 1946, the Millard E. Terrell Homes, a family development with 275 units, was constructed on the property formerly occupied by the New Jersey Zinc & Iron Company. A playground and grass-covered play area are located on housing authority property just beyond the fence that separates the 99 Chapel Street portion of the Site and the apartment complex. Additional residential properties are located across Chapel Street to the east.

7. Sample Collection Methodology

During the March 2013 sampling event, RST 2 collected 42 soil samples, including two field duplicates, from the 99 Chapel Street portion of the site. The Site [former Barth Smelting facility (i.e., 99 Chapel Street)] was divided into an approximately 100-foot (ft.) by 100-ft. grid pattern. At 99 Chapel Street, RST 2 advanced 12 boreholes within the former Barth Smelting facility footprint to a depth of 2 feet below ground surface (bgs) using Geoprobe[®] direct-push method. One additional borehole was advanced to a depth of 2 feet bgs using a hand-driven bucket auger from an area believed to be used by an on-site resident as a garden. RST 2 collected a total of 42 soil samples, including two field duplicate samples, from 99 Chapel Street. Borehole locations were recorded electronically using Global Positioning System (GPS) technology. From direct-push boreholes advanced within the paved areas of 99 Chapel Street, RST 2 generally collected soil samples from 2-6 inches, 6-12 inches, 12-18 inches, and 18-24

inches. The presence of asphalt, coarse material such as gravel, and subsurface concrete altered the sampling depths at some locations. From the manually advanced borehole in the garden area, RST 2 collected soil samples from 0-1 inch, 1-6 inches, 6-12 inches, 12-18 inches, and 18-24 inches. Refer to Attachment B, Table 1 for sample collection information and specific sample depths. The samples were collected to determine if operations at the former Barth Smelting facility have impacted the soils within the footprint of the facility.

Soil samples were collected in 4-ounce (oz.) jars (as requested by the lab). Field duplicate and matrix spike/matrix spike duplicate (MS/MSD) samples were collected at a rate of one per 20 soil samples (inclusive of samples collected at the adjacent Terrell Homes housing complex). Soil samples were collected using dedicated plastic scoops. One rinsate blank sample was collected from a decontaminated Geoprobe® cutting shoe at a rate of one per day of sampling to demonstrate adequate decontamination of non-dedicated sampling equipment. Boreholes were backfilled and capped with asphalt or bentonite. The soil samples were submitted to the EPA DESA laboratory in Edison, New Jersey for TAL metal (including mercury and tin) analysis. Soil samples collected from the uppermost interval from each borehole were designated for sieving with a 250-micron stainless steel sieve and pan. After the samples were collected, the sample information was entered into Scribe sample management database from which sample labels and chain of custody documents were prepared and printed. The Chain of Custody Record is presented in Attachment C.

8. Analytical Results

Soil sample analytical results indicated the presence of lead at concentrations that exceed the USEPA Removal Management Level (RML) of 800 milligrams per kilogram (mg/kg) in 14 samples collected from seven of the boreholes; these elevated concentrations range from 1,100 mg/kg to 11,000 mg/kg. The highest concentrations were detected in soil samples collected from soil borings P001-SS006 and P001-SS009. Arsenic and manganese were also detected above their respective RMLs.

For reference purposes of this report, Attachment A contains the Site Location Map (Figure 1), and the Sample Location Map (Figure 2); Attachment B contains sample collection information (Table 1) and a target analyte list metals data summary table (Table 2); and Attachment C contains the sample analytical results and the Chain of Custody Record.


8. Report Prepared by:


Scott T. Snyder, CHMM
RST 2 Site Project Manager/Group Leader

Date:

6/12/13

Report Reviewed by:


Joel Petty
RST 2 Group Leader

Date:

6/12/13

ATTACHMENT A

Figure 1: Site Location Map

Figure 2: Sample Location Map



Legend



Site Location

0 0.07 0.15 0.3 0.45 0.6
Miles



Weston Solutions, Inc.
Northeast Division

In Association With
H & S Environmental, Inc.,
Scientific and Environmental Associates, Inc.
and Avatar Environmental, LLC.

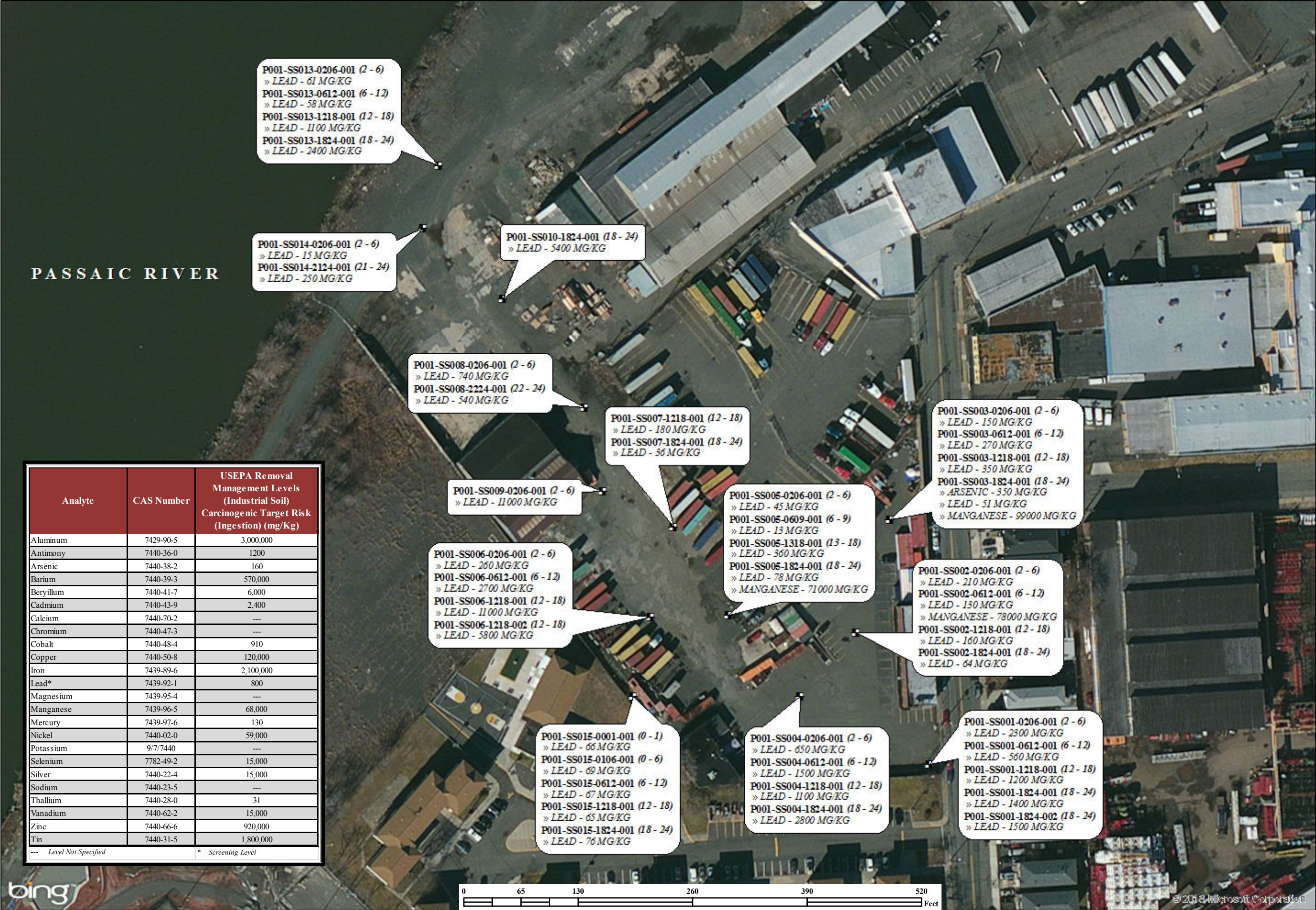
DATE MODIFIED: 12/6/2012

Figure 1 Site Location Map

Barth Smelting Corporation Site
Newark, New Jersey

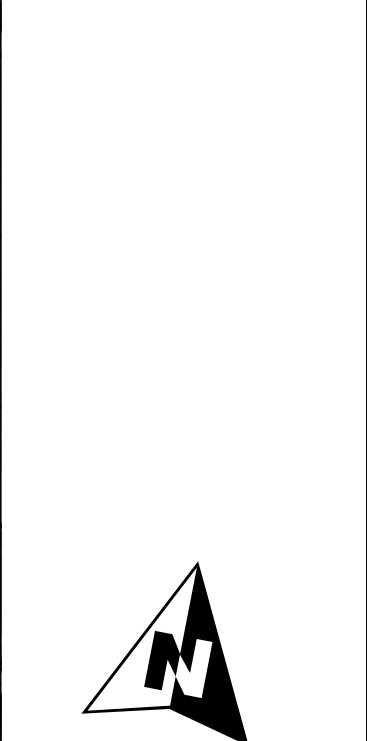
U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL SUPPORT TEAM 2
CONTRACT # EP-W-06-072

GIS ANALYST: T. BENTON
EPA OSC: K. STAIGER
RST SPM: S. SNYDER
FILENAME: SITEMAP.MXD



SCALE
1:1,250

LEGEND
Soil Sampling Location



NOTE(S):
» ALL SAMPLE DEPTHS ARE DEPICTED IN INCHES AND ARE DISPLAYED IN PARENTHESIS
» ALL LEAD RESULTS AND ONLY EXCEEDANCES OF U.S.E.P.A. REMOVAL MANAGEMENT CRITERIA ARE DEPICTED
» MG/KG - MILLIGRAM PER KILOGRAM

**Figure 2: Sample Location Map
99 Chapel Street**

**BARTH SMELTING CORPORATION
NEWARK, NEW JERSEY**

**UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
REMOVAL SUPPORT TEAM 2
CONTRACT # EP-W-06-072**

Weston Solutions, Inc.

In Association With
Scientific and Environmental Associates, Inc.,
H & S Environmental, Inc. &
Avatar Environmental, LLC

GIS ANALYST:	E. CAMPBELL
EPA OSC:	K. STAIGER
RST 2 SPM:	S. SNYDER
FILENAME:	99 CHAPEL SMP.MXD
FIGURE:	2
REVISION:	0
DATE MODIFIED:	05/24/2013



ATTACHMENT B

Table 1: Sample Collection Information

Table 2: Target Analyte List Metals Data Summary

Table 1
Sample Collection Information
Barth Smelting Corporation Site (99 Chapel Street)
March 26, 2013

Sample No.	Sample Date	Sample Time	Matrix	Collection	Sample Type	Depth From (inches)	Depth To (inches)	Remarks
RB-032613	3/26/2013	9:00	DI Water	Grab	Rinsate Blank	N/A		Geoprobe cutting shoe.
P001-SS001-0206-001	3/26/2013	9:10	Soil	Grab	Field Sample	2	6	Sample designated for 250-micron sieving.
P001-SS001-0612-001	3/26/2013	9:12	Soil	Grab	Field Sample	6	12	
P001-SS001-1218-001	3/26/2013	9:15	Soil	Grab	Field Sample	12	18	
P001-SS001-1824-001	3/26/2013	9:20	Soil	Grab	Field Sample	18	24	Matrix Spike/Matrix Spike Duplicate.
P001-SS001-1824-002	3/26/2013	9:20	Soil	Grab	Field Duplicate	18	24	Duplicate of P001-SS001-1824-001.
P001-SS002-0206-001	3/26/2013	9:45	Soil	Grab	Field Sample	2	6	Sample designated for 250-micron sieving.
P001-SS002-0612-001	3/26/2013	9:47	Soil	Grab	Field Sample	6	12	
P001-SS002-1218-001	3/26/2013	9:50	Soil	Grab	Field Sample	12	18	
P001-SS002-1824-001	3/26/2013	9:52	Soil	Grab	Field Sample	18	24	
P001-SS003-0206-001	3/26/2013	10:05	Soil	Grab	Field Sample	2	6	Sample designated for 250-micron sieving.
P001-SS003-0612-001	3/26/2013	10:07	Soil	Grab	Field Sample	6	12	
P001-SS003-1218-001	3/26/2013	10:10	Soil	Grab	Field Sample	12	18	
P001-SS003-1824-001	3/26/2013	10:12	Soil	Grab	Field Sample	18	24	
P001-SS004-0206-001	3/26/2013	10:25	Soil	Grab	Field Sample	2	6	Sample designated for 250-micron sieving.
P001-SS004-0612-001	3/26/2013	10:28	Soil	Grab	Field Sample	6	12	
P001-SS004-1218-001	3/26/2013	10:35	Soil	Grab	Field Sample	12	18	
P001-SS004-1824-001	3/26/2013	10:40	Soil	Grab	Field Sample	18	24	
P001-SS005-0206-001	3/26/2013	11:00	Soil	Grab	Field Sample	2	6	Sample designated for 250-micron sieving.
P001-SS005-0609-001	3/26/2013	11:05	Soil	Grab	Field Sample	6	9	Presence of subsurface concrete altered normal sample depths.
P001-SS005-1318-001	3/26/2013	11:08	Soil	Grab	Field Sample	13	18	Presence of subsurface concrete altered normal sample depths.
P001-SS005-1824-001	3/26/2013	11:12	Soil	Grab	Field Sample	18	24	
P001-SS006-0206-001	3/26/2013	11:30	Soil	Grab	Field Sample	2	6	Sample designated for 250-micron sieving.
P001-SS006-0612-001	3/26/2013	11:35	Soil	Grab	Field Sample	6	12	
P001-SS006-1218-001	3/26/2013	11:40	Soil	Grab	Field Sample	12	18	Matrix Spike/Matrix Spike Duplicate.
P001-SS006-1218-002	3/26/2013	11:40	Soil	Grab	Field Duplicate	12	18	Duplicate of P001-SS006-1218-001.
P001-SS007-1218-001	3/26/2013	12:10	Soil	Grab	Field Sample	12	18	Presence of concrete and coarse gravel prevented sample collection above 12 inches.
P001-SS007-1824-001	3/26/2013	12:15	Soil	Grab	Field Sample	18	24	
P001-SS008-0206-001	3/26/2013	13:00	Soil	Grab	Field Sample	2	6	Presence of concrete and coarse material prevented sample collection from depths of 6 to 22 inches. Sample designated for 250-micron sieving.
P001-SS008-2224-001	3/26/2013	13:05	Soil	Grab	Field Sample	22	24	Presence of concrete altered normal sample depths.
P001-SS009-0206-001	3/26/2013	12:40	Soil	Grab	Field Sample	2	6	Geoprobe refusal at 12 inches (concrete). Sample designated for 250-micron sieving.
P001-SS010-1824-001	3/26/2013	13:20	Soil	Grab	Field Sample	18	24	Presence of concrete and coarse material prevented sample collection from remaining intervals at this location.
P001-SS013-0206-001	3/26/2013	13:55	Soil	Grab	Field Sample	2	6	Sample designated for 250-micron sieving.
P001-SS013-0612-001	3/26/2013	14:00	Soil	Grab	Field Sample	6	12	
P001-SS013-1218-001	3/26/2013	14:05	Soil	Grab	Field Sample	12	18	
P001-SS013-1824-001	3/26/2013	14:10	Soil	Grab	Field Sample	18	24	
P001-SS014-0206-001	3/26/2013	13:35	Soil	Grab	Field Sample	2	6	Sample designated for 250-micron sieving.
P001-SS014-2124-001	3/26/2013	13:40	Soil	Grab	Field Sample	21	24	Presence of concrete and coarse material prevented collection of samples and altered bottom sample depth.
P001-SS015-0001-001	3/26/2013	14:42	Soil	Grab	Field Sample	0	1	Garden Area. Sample designated for 250-micron sieving.
P001-SS015-0106-001	3/26/2013	14:45	Soil	Grab	Field Sample	1	6	Garden Area.
P001-SS015-0612-001	3/26/2013	14:47	Soil	Grab	Field Sample	6	12	Garden Area.
P001-SS015-1218-001	3/26/2013	14:53	Soil	Grab	Field Sample	12	18	Garden Area.
P001-SS015-1824-001	3/26/2013	14:55	Soil	Grab	Field Sample	18	24	Garden Area.

DI = Deionized.

N/A = Not Applicable.

Table 2
Target Analyte List Metals Data Summary
Barth Smelting Corporation Site (99 Chapel Street)
March 26, 2013

Field Sample ID: Sample Date: Lab Sample ID: Depth (inches):	P001-SS001-0206-001 3/26/2013 1303109-01 2-6		P001-SS001-0612-001 3/26/2013 1303109-02 6-12		P001-SS001-1218-001 3/26/2013 1303109-03 12-18		P001-SS001-1824-001 3/26/2013 1303109-04 18-24		P001-SS001-1824-002 3/26/2013 1303109-05 18-24		P001-SS002-0206-001 3/26/2013 1303109-06 2-6		P001-SS002-0612-001 3/26/2013 1303109-07 6-12		P001-SS002-1218-001 3/26/2013 1303109-08 12-18		P001-SS002-1824-001 3/26/2013 1303109-09 18-24		P001-SS003-0206-001 3/26/2013 1303109-10 2-6		P001-SS003-0612-001 3/26/2013 1303109-11 6-12		USEPA Removal Management Levels (Industrial Soil) Carcinogenic Target Risk (Ingestion)
Sample Location:	P001-SS001		P001-SS001		P001-SS001		P001-SS001		Duplicate of P001- SS001-1824-001		P001-SS002		P001-SS002		P001-SS002		P001-SS002		P001-SS003		P001-SS003		
Aluminum	6200		7500		9500		8200		8000		8500		6700		13000		11000		8800		5900		3000000
Antimony	32		9.2	U	18		22		26		8.9	U	24		10		9.3	U	9.7	U	35		1200
Arsenic	8.5		13		35		53		72		3.6	U	130		41		54		65		150		160
Barium	150		88		180		610		730		45	U	120		110		110		130		300		570000
Beryllium	1.5		1.4	U	3.0		1.9		1.7		1.3	U	2.3		2.4		1.4	U	1.5	U	2.7		6000
Cadmium	3.9		3.1		5.4		7.0		6.6		1.3	U	2.9		2.3		1.4	U	2.2		3.9		2400
Calcium	6800		19000		37000		12000		14000		17000		11000		16000		13000		41000		42000		Not Established
Chromium	41		11		26		36		45		7.2		13		18		18		21		34		560*
Cobalt	10		12		9.0		11	U	13		8.9	U	12		8.8	U	9.3	U	14		10		910
Copper	12000		1600		3200		5600		2200		710		190		73		88		1700		590		120000
Iron	26000		35000		61000		54000		100000		25000		150000		47000		37000		75000		110000		2100000
Lead	2300		560		1200		1400		1500		210		130		160		64		150		270		800
Magnesium	2800		9900		18000		3700		4700		8500		4200		4200		3400		15000		18000		Not Established
Manganese	620		6700		30000		16000		19000		340		78000		18000		8200		16000		38000		68000
Nickel	200		34		69		73		72		31		45		21		16		62		45		59000**
Potassium	340		590		670		550		500		450		510		750		630		1300		470		Not Established
Selenium	9.9	U	9.2	U	45	U	11	U	10	U	8.9	U	80	U	18	U	9.3	U	9.7	U	45	U	15000
Silver	4.9		2.3	U	4.3		2.6	U	2.6	U	2.2	U	9.0		2.7		2.3	U	2.4	U	5.0		15000
Sodium	670		660		540		610		620		1300		670		910		980		990		630		Not Established
Thallium	9.9	U	9.2	U	9.0	U	11	U	10	U	8.9	U	8.0	U	8.8	U	9.3	U	9.7	U	9.0	U	31**
Tin	670		36		70		190		150		27		8.5		8.3		7.9		130		43		1800000
Vanadium	140		84		29		30		44		150		28		24		24		69		28		15000
Zinc	3600		3400		13000		14000		13000		400		37000		24000		13000		12000		31000		920000
Mercury	0.036	U	0.15		0.080		0.50		0.53		0.044	U	0.29		0.047	U	0.13		0.070		0.16		130

All results in milligrams per kilogram (mg/kg).
U = The analyte was not detected at or above the reporting limit.
Reported concentration exceeds USEPA Removal Management Level.
* Value for hexavalent chromium, lower of two values.
** Soluble salts.

Table 2 (continued)
Target Analyte List Metals Data Summary
Barth Smelting Corporation Site (99 Chapel Street)
March 26, 2013

Field Sample ID: Sample Date: Lab Sample ID: Depth (inches):	P001-SS003-1218-001 3/26/2013 1303109-12 12-18	P001-SS003-1824-001 3/26/2013 1303109-13 18-24	P001-SS004-0206-001 3/26/2013 1303109-14 2-6	P001-SS004-0612-001 3/26/2013 1303109-15 6-12	P001-SS004-1218-001 3/26/2013 1303109-16 12-18	P001-SS004-1824-001 3/26/2013 1303109-17 28-24	P001-SS005-0206-001 3/26/2013 1303109-18 2-6	P001-SS005-0609-001 3/26/2013 1303109-19 6-9	P001-SS005-1318-001 3/26/2013 1303109-20 13-18	P001-SS005-1824-001 3/26/2013 1303109-21 18-24	P001-SS006-0206-001 3/26/2013 1303109-22 2-6	USEPA Removal Management Levels (Industrial Soil) Carcinogenic Target Risk (Ingestion)
Sample Location:	P001-SS003	P001-SS003	P001-SS004	P001-SS004	P001-SS004	P001-SS004	P001-SS005	P001-SS005	P001-SS005	P001-SS005	P001-SS006	
Aluminum	7500	6400	12000	16000	12000	11000	12000	12000	7900	7400	8500	3000000
Antimony	25	28	9.8 U	8.5 U	9.6 U	9.0 U	9.7 U	8.6 U	20	47	8.6 U	1200
Arsenic	140	350	6.7	6.5	8.0	11	3.9 U	3.5 U	100	110	3.7	160
Barium	300	270	59	98	200	59	59	43 U	280	160	84	570000
Beryllium	2.7	6.0	1.5 U	1.3	1.4 U	1.4	1.5 U	1.3 U	2.8	2.8	1.3 U	6000
Cadmium	3.0	4.8	6.1	13	9.5	57	1.5 U	1.3 U	6.2	2.6	1.3 U	2400
Calcium	13000	41000	16000	26000	31000	41000	21000	21000	44000	15000	44000	Not Established
Chromium	91	12	33	28	31	17	24	18	18	15	32	560*
Cobalt	16	12	9.8 U	8.9	9.6 U	9.0 U	12	12	8.8	12	8.6 U	910
Copper	810	30	2000	3900	2400	1800	160	67	150	45	850	120000
Iron	110000	170000	33000	24000	17000	33000	29000	26000	100000	150000	31000	2100000
Lead	350	51	650	1500	1100	2800	45	13	360	78	260	800
Magnesium	2600	8100	7300	6900	3100	7100	12000	14000	16000	4100	19000	Not Established
Manganese	35000	99000	2600	380	280	350	430	350	52000	71000	470	68000
Nickel	120	46	60	79	42	34	26	24	42	42	29	59000**
Potassium	630	920	600	720	1200	820	1200	880	690	480	940	Not Established
Selenium	45 U	160 U	9.8 U	8.5 U	9.6 U	9.0 U	9.7 U	8.6 U	41 U	46 U	8.6 U	15000
Silver	4.7	12	2.4 U	2.1 U	2.4 U	2.4	2.4 U	2.2 U	6.8	8.5	2.1 U	15000
Sodium	630	710	1700	2800	2800	2100	710	500	410 U	460 U	570	Not Established
Thallium	9.0 U	8.1 U	9.8 U	8.5 U	9.6 U	9.0 U	9.7 U	8.6 U	8.2 U	9.3 U	8.6 U	31**
Tin	32	4.1 U	130	260	170	380	5.6	4.3 U	15	4.6 U	28	1800000
Vanadium	37	24	85	45	30	33	100	89	26	25	58	15000
Zinc	24000	77000	6600	9900	7300	27000	380	97	22000	32000	960	920000
Mercury	0.19	0.029 U	0.13	0.34	0.29	0.97	0.040 U	0.032 U	0.24	0.090	0.035	130

All results in milligrams per kilogram (mg/kg).
U = The analyte was not detected at or above the reporting limit.
Reported concentration exceeds USEPA Removal Management Level.
* Value for hexavalent chromium, lower of two values.
** Soluble salts.

Table 2 (continued)
Target Analyte List Metals Data Summary
Barth Smelting Corporation (99 Chapel Street)
March 26, 2013

Field Sample ID: Sample Date: Lab Sample ID: Depth (inches):	P001-SS006-0612-001 3/26/2013 1303109-23 6-12		P001-SS006-1218-001 3/26/2013 1303109-24 12-18		P001-SS006-1218-002 3/26/2013 1303109-25 12-18		P001-SS007-1218-001 3/26/2013 1303109-26 12-18		P001-SS007-1824-001 3/26/2013 1303109-27 18-24		P001-SS008-0206-001 3/26/2013 1303109-28 2-6		P001-SS008-2224-001 3/26/2013 1303109-29 22-24		P001-SS009-0206-001 3/26/2013 1303109-30 2-6		P001-SS010-1824-001 3/26/2013 1303109-31 18-24		P001-SS013-0206-001 3/26/2013 1303109-32 2-6		P001-SS013-0612-001 3/26/2013 1303109-33 6-12		USEPA Removal Management Levels (Industrial Soil) Carcinogenic Target Risk (Ingestion)
Sample Location:	P001-SS006		P001-SS006		Duplicate of P001-SS006-1218-001		P001-SS007		P001-SS007		P001-SS008		P001-SS008		P001-SS009		P001-SS010		P001-SS013		P001-SS013		
Aluminum	8500		9400		9500		10000		16000		14000		3700		13000		5100		12000		6200		3000000
Antimony	20		110		32		18		8.5 U		7.8 U		21		130		39		7.9 U		8.1 U		1200
Arsenic	11		17		15		79		14		5.0		67		22		27		3.2 U		3.2 U		160
Barium	250		330		320		210		190		150		170		560		690		130		47		570000
Beryllium	1.7		7.3		4.3		6.0		7.1		3.6		1.7		7.5		3.9		1.2 U		1.2 U		6000
Cadmium	18		48		35		2.9		1.3 U		5.0		3.3		82		23		1.2 U		1.2 U		2400
Calcium	41000		46000		45000		31000		37000		15000		4900		37000		35000		13000		5400		Not Established
Chromium	100		79		67		13		12		65		16		94		77		37		24		560*
Cobalt	8.6 U		11		10		11		8.5 U		11		15		14		14 U		10		8.1		910
Copper	9100		20000		16000		360		20		4400		340		18000		25000		180		110		120000
Iron	21000		42000		45000		90000		25000		53000		79000		41000		49000		38000		35000		2100000
Lead	2700		11000		5800		180		36		740		540		11000		5400		61		58		800
Magnesium	16000		4900		4300		7900		6700		5700		1400		4200		14000		7200		4300		Not Established
Manganese	810		3700		1600		38000		46000		970		15000		1900		2800		330		180		68000
Nickel	810		440		540		40		14		120		38		300		580		25		17		59000**
Potassium	450		510		480		1200		1500		1600		360		440		340		1800		1700		Not Established
Selenium	8.6 U		8.8 U		8.4 U		40 U		85 U		7.8 U		9.7 U		8.6 U		14 U		7.9 U		8.1 U		15000
Silver	3.2		9.6		6.2		4.9		5.2		2.7		2.4 U		9.8		8.5		2.0 U		2.0 U		15000
Sodium	430 U		530		420 U		430		480		910		480 U		430 U		740		660		400 U		Not Established
Thallium	8.6 U		8.8 UL		8.4 U		8.0 U		8.5 U		7.8 U		9.7 U		8.6 U		14 U		7.9 U		8.1 U		31**
Tin	780		800		780		12		6.6		200		30		1200		1100		3.9 U		4.0 U		1800000
Vanadium	32		38		37		24		17		70		19		45		49		74		69		15000
Zinc	8900		37000		26000		21000		5700		4400		23000		60000		14000		610		280		920000
Mercury	0.88		1.2		0.99		0.043 U		0.035 U		0.40		0.38		3.4		2.0		0.031 U		0.039 U		130

All results in milligrams per kilogram (mg/kg).
U = The analyte was not detected at or above the reporting limit.
L = The identification of the analyte is acceptable; the reported value may be biased low.
Reported concentration exceeds USEPA Removal Management Level.
* Value for hexavalent chromium, lower of two values.
** Soluble salts.

Table 2 (continued)
Target Analyte List Metals Data Summary
Barth Smelting Corporation (99 Chapel Street)
March 26, 2013

Field Sample ID: Sample Date: Lab Sample ID: Depth (inches): Sample Location:	P001-SS013-1218-001 3/26/2013 1303109-34 12-18 P001-SS013	P001-SS013-1824-001 3/26/2013 1303109-35 18-24 P001-SS013	P001-SS014-0206-001 3/26/2013 1303109-36 2-6 P001-SS014	P001-SS014-2124-001 3/26/2013 1303109-37 21-24 P001-SS014	P001-SS015-0001-001 3/26/2013 1303109-38 0-1 P001-SS015	P001-SS015-0106-001 3/26/2013 1303109-39 1-6 P001-SS015	P001-SS015-0612-001 3/26/2013 1303109-40 6-12 P001-SS015	P001-SS015-1218-001 3/26/2013 1303109-41 12-18 P001-SS015	P001-SS015-1824-001 3/26/2013 1303109-42 18-24 P001-SS015	USEPA Removal Management Levels (Industrial Soil) Carcinogenic Target Risk (Ingestion)
Aluminum	3900	26000	13000	21000	7900	7800	8100	8000	7900	3000000
Antimony	26	14	8.3 U	14	9.1 U	9.4 U	9.1 U	9.2 U	8.9 U	1200
Arsenic	3.8	15	3.3 U	46	7.4	5.9	9.4	11	25	160
Barium	50	510	54	270	65	62	70	69	73	570000
Beryllium	1.2 U	6.9	1.2 U	5.1	1.4 U	1.4 U	1.4 U	1.4 U	1.3 U	6000
Cadmium	4.5	7.5	1.2 U	3.5	1.4 U	1.4 U	1.4 U	1.4 U	1.3 U	2400
Calcium	4200	60000	22000	34000	7300	13000	11000	11000	11000	Not Established
Chromium	17	200	19	290	23	23	24	33	39	560*
Cobalt	7.9 U	17	12	45	9.1 U	9.4 U	9.1 U	9.2 U	8.9 U	910
Copper	3300	5400	60	610	88	82	74	77	83	120000
Iron	13000	50000	27000	73000	20000	16000	17000	17000	17000	2100000
Lead	1100	2400	15	250	66	69	67	65	76	800
Magnesium	1700	9800	12000	5900	3200	3800	3000	3400	3500	Not Established
Manganese	290	42000	360	30000	500	510	540	550	590	68000
Nickel	40	170	28	180	15	14	14	15	36	59000**
Potassium	310	1500	1000	1500	690	610	540	630	500	Not Established
Selenium	7.9 U	43 U	8.3 U	43 U	9.1 U	9.4 U	9.1 U	9.2 U	8.9 U	15000
Silver	2.0 U	6.0	2.1 U	3.4	2.3 U	2.4 U	2.3 U	2.3 U	2.2 U	15000
Sodium	400 U	650	1300	610	450 U	470 U	460 U	460 U	440 U	Not Established
Thallium	7.9 U	8.6 U	8.3 U	8.7 U	9.1 U	9.4 U	9.1 U	9.2 U	8.9 U	31**
Tin	98	180	4.2 U	7.9	4.5 U	4.7 U	4.6 U	4.6 U	4.4 U	1800000
Vanadium	25	21	92	20	36	28	30	31	31	15000
Zinc	3700	6700	120	1200	230	200	190	180	210	920000
Mercury	0.23	0.047	0.038 U	0.036 U	0.094	0.10	0.12	0.12	0.11	130

All results in milligrams per kilogram (mg/kg).
U = The analyte was not detected at or above the reporting limit.
Reported concentration exceeds USEPA Removal Management Level
* Value for hexavalent chromium, lower of two values.
** Soluble salts.

ATTACHMENT C

Sample Analytical Results and Chain of Custody Record



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

**Region 2 Laboratory
2890 Woodbridge Avenue
Edison, New Jersey 08837
732-906-6886 Phone
732-906-6165 Fax**

May 15, 2013

Smita Sumbaly
Weston Solutions Inc.
205 Campus Drive
Edison, NJ 08837

RE: Barth Smelting Co.-1303109

Enclosed are the results of analyses for samples received by the laboratory between 3/27/2013 and 4/2/2013. The signature below reflects the laboratory's approval of the reported results. If you have any questions concerning this report, please refer to Project Number 1303109 and contact John Birri by phone at 732-906-6886, or via Email at birri.john@epa.gov.

Sincerely,

A handwritten signature in cursive script, which appears to read "John R. Bourbon", is written over a horizontal line.

John R. Bourbon
Chief, DESA/LB



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

Project Narrative:

The National Environmental Laboratory Accreditation Conference Institute (TNI) is a voluntary environmental laboratory accreditation association of State and Federal agencies. TNI established and promoted a National Environmental Laboratory Accreditation Program (NELAP) that provides a uniform set of standards for the generation of environmental data that are of known and defensible quality. The EPA Region 2 Laboratory is NELAP accredited. The Laboratory tests that are accredited have met all the requirements established under the TNI Standards.

Condition Comments

None

Comment(s):

None

Data Qualifier(s):

- U- The analyte was not detected at or above the Reporting Limit.
- J- The identification of the analyte is acceptable; the reported value is an estimate.
- K- The identification of the analyte is acceptable; the reported value may be biased high.
- L- The identification of the analyte is acceptable; the reported value may be biased low.
- NJ- There is presumptive evidence that the analyte is present; the analyte is reported as a tentative identification. The reported value is an estimate.

Reporting Limit(s):

The Laboratory was able to achieve the appropriate limits for each metals analytes and Mercury requested except for the Selenium which was raised due to highly saturated samples with Manganese. The Client's action level of 390 mg/Kg requirement for Selenium was met.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

SUMMARY REPORT FOR SAMPLES

Field ID	Laboratory ID	Matrix	Date Sampled	Date Received
P001-SS001-0206-001	1303109-01	Solid	03/26/2013 09:10	03/27/2013 11:50
P001-SS001-0612-001	1303109-02	Solid	03/26/2013 09:12	03/27/2013 11:50
P001-SS001-1218-001	1303109-03	Solid	03/26/2013 09:15	03/27/2013 11:50
P001-SS001-1824-001	1303109-04	Solid	03/26/2013 09:20	03/27/2013 11:50
P001-SS001-1824-002	1303109-05	Solid	03/26/2013 09:20	03/27/2013 11:50
P001-SS002-0206-001	1303109-06	Solid	03/26/2013 09:45	03/27/2013 11:50
P001-SS002-0612-001	1303109-07	Solid	03/26/2013 09:47	03/27/2013 11:50
P001-SS002-1218-001	1303109-08	Solid	03/26/2013 09:50	03/27/2013 11:50
P001-SS002-1824-001	1303109-09	Solid	03/26/2013 09:52	03/27/2013 11:50
P001-SS003-0206-001	1303109-10	Solid	03/26/2013 10:05	03/27/2013 11:50
P001-SS003-0612-001	1303109-11	Solid	03/26/2013 10:07	03/27/2013 11:50
P001-SS003-1218-001	1303109-12	Solid	03/26/2013 10:10	03/27/2013 11:50
P001-SS003-1824-001	1303109-13	Solid	03/26/2013 10:12	03/27/2013 11:50
P001-SS004-0206-001	1303109-14	Solid	03/26/2013 10:25	03/27/2013 11:50
P001-SS004-0612-001	1303109-15	Solid	03/26/2013 10:28	03/27/2013 11:50
P001-SS004-1218-001	1303109-16	Solid	03/26/2013 10:35	03/27/2013 11:50
P001-SS004-1824-001	1303109-17	Solid	03/26/2013 10:40	03/27/2013 11:50
P001-SS005-0206-001	1303109-18	Solid	03/26/2013 11:00	03/27/2013 11:50
P001-SS005-0609-001	1303109-19	Solid	03/26/2013 11:05	03/27/2013 11:50
P001-SS005-1318-001	1303109-20	Solid	03/26/2013 11:08	03/27/2013 11:50
P001-SS005-1824-001	1303109-21	Solid	03/26/2013 11:12	03/27/2013 11:50
P001-SS006-0206-001	1303109-22	Solid	03/26/2013 11:30	03/27/2013 11:50
P001-SS006-0612-001	1303109-23	Solid	03/26/2013 11:35	03/27/2013 11:50
P001-SS006-1218-001	1303109-24	Solid	03/26/2013 11:40	03/27/2013 11:50
P001-SS006-1218-002	1303109-25	Solid	03/26/2013 11:40	03/27/2013 11:50
P001-SS007-1218-001	1303109-26	Solid	03/26/2013 12:10	03/27/2013 11:50
P001-SS007-1824-001	1303109-27	Solid	03/26/2013 12:15	03/27/2013 11:50
P001-SS008-0206-001	1303109-28	Solid	03/26/2013 13:00	03/27/2013 11:50
P001-SS008-2224-001	1303109-29	Solid	03/26/2013 13:05	03/27/2013 11:50



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

SUMMARY REPORT FOR SAMPLES

Field ID	Laboratory ID	Matrix	Date Sampled	Date Received
P001-SS009-0206-001	1303109-30	Solid	03/26/2013 12:40	03/27/2013 11:50
P001-SS010-1824-001	1303109-31	Solid	03/26/2013 13:20	03/27/2013 11:50
P001-SS013-0206-001	1303109-32	Solid	03/26/2013 13:55	03/27/2013 11:50
P001-SS013-0612-001	1303109-33	Solid	03/26/2013 14:00	03/27/2013 11:50
P001-SS013-1218-001	1303109-34	Solid	03/26/2013 14:05	03/27/2013 11:50
P001-SS013-1824-001	1303109-35	Solid	03/26/2013 14:10	03/27/2013 11:50
P001-SS014-0206-001	1303109-36	Solid	03/26/2013 13:35	03/27/2013 11:50
P001-SS014-2124-001	1303109-37	Solid	03/26/2013 13:40	03/27/2013 11:50
P001-SS015-0001-001	1303109-38	Solid	03/26/2013 14:42	03/27/2013 11:50
P001-SS015-0106-001	1303109-39	Solid	03/26/2013 14:45	03/27/2013 11:50
P001-SS015-0612-001	1303109-40	Solid	03/26/2013 14:47	03/27/2013 11:50
P001-SS015-1218-001	1303109-41	Solid	03/26/2013 14:53	03/27/2013 11:50
P001-SS015-1824-001	1303109-42	Solid	03/26/2013 14:55	03/27/2013 11:50
RB-032613	1303109-43	Aqueous	03/26/2013 09:00	03/27/2013 11:50



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

SUMMARY REPORT FOR METHODS

Analysis	Method	Certification	Matrix
Mercury	EPA 245.1 / SOP C-110 Rev2.3	NELAP	Aqueous
Mercury	EPA 245.1 / SOP C-110 Rev2.3	NELAP	Solid
E-Metals ICP TAL	EPA 200.7 / SOP C-109 Rev3.2	NELAP	Aqueous
E-Metals ICP TAL	EPA 200.7 / SOP C-109 Rev3.2	NELAP	Solid



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS001-0206-001

Sample ID: 1303109-01

Metals ICP

Aluminum	6200		50	mg/kg dry
Antimony	32		9.9	mg/kg dry
Arsenic	8.5		4.0	mg/kg dry
Barium	150		50	mg/kg dry
Beryllium	1.5		1.5	mg/kg dry
Cadmium	3.9		1.5	mg/kg dry
Calcium	6800		250	mg/kg dry
Chromium	41		2.5	mg/kg dry
Cobalt	10		9.9	mg/kg dry
Copper	12000		5.0	mg/kg dry
Iron	26000		25	mg/kg dry
Lead	2300		4.0	mg/kg dry
Magnesium	2800		250	mg/kg dry
Manganese	620		2.5	mg/kg dry
Nickel	200		9.9	mg/kg dry
Potassium	340		250	mg/kg dry
Selenium	---	U	9.9	mg/kg dry
Sodium	670		500	mg/kg dry
Silver	4.9		2.5	mg/kg dry
Thallium	---	U	9.9	mg/kg dry
Vanadium	140		9.9	mg/kg dry
Zinc	3600		9.9	mg/kg dry
Tin	670		5.0	mg/kg dry

Mercury CVAA

Mercury	---	U	0.036	mg/kg dry
---------	-----	---	-------	-----------



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS001-0612-001

Sample ID: 1303109-02

Metals ICP

Aluminum	7500		46	mg/kg dry
Antimony	---	U	9.2	mg/kg dry
Arsenic	13		3.7	mg/kg dry
Barium	88		46	mg/kg dry
Beryllium	---	U	1.4	mg/kg dry
Cadmium	3.1		1.4	mg/kg dry
Calcium	19000		230	mg/kg dry
Chromium	11		2.3	mg/kg dry
Cobalt	12		9.2	mg/kg dry
Copper	1600		4.6	mg/kg dry
Iron	35000		23	mg/kg dry
Lead	560		3.7	mg/kg dry
Magnesium	9900		230	mg/kg dry
Manganese	6700		2.3	mg/kg dry
Nickel	34		9.2	mg/kg dry
Potassium	590		230	mg/kg dry
Selenium	---	U	9.2	mg/kg dry
Sodium	660		460	mg/kg dry
Silver	---	U	2.3	mg/kg dry
Thallium	---	U	9.2	mg/kg dry
Vanadium	84		9.2	mg/kg dry
Zinc	3400		9.2	mg/kg dry
Tin	36		4.6	mg/kg dry

Mercury CVAA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS001-0612-001

Sample ID: 1303109-02

Mercury CVAA

Mercury	0.15		0.034	mg/kg dry
---------	------	--	-------	-----------

Field ID: P001-SS001-1218-001

Sample ID: 1303109-03

Metals ICP

Aluminum	9500		45	mg/kg dry
Antimony	18		9.0	mg/kg dry
Arsenic	35		3.6	mg/kg dry
Barium	180		45	mg/kg dry
Beryllium	3.0		1.3	mg/kg dry
Cadmium	5.4		1.3	mg/kg dry
Calcium	37000		220	mg/kg dry
Chromium	26		2.2	mg/kg dry
Cobalt	9.0		9.0	mg/kg dry
Copper	3200		4.5	mg/kg dry
Iron	61000		22	mg/kg dry
Lead	1200		3.6	mg/kg dry
Magnesium	18000		220	mg/kg dry
Manganese	30000		11	mg/kg dry
Nickel	69		9.0	mg/kg dry
Potassium	670		220	mg/kg dry
Selenium	---	U	45	mg/kg dry
Sodium	540		450	mg/kg dry
Silver	4.3		2.2	mg/kg dry
Thallium	---	U	9.0	mg/kg dry
Vanadium	29		9.0	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS001-1218-001

Sample ID: 1303109-03

Metals ICP

Zinc	13000		9.0	mg/kg dry
Tin	70		4.5	mg/kg dry

Mercury CVAA

Mercury	0.080		0.036	mg/kg dry
---------	-------	--	-------	-----------

Field ID: P001-SS001-1824-001

Sample ID: 1303109-04

Metals ICP

Aluminum	8200		53	mg/kg dry
Antimony	22		11	mg/kg dry
Arsenic	53		4.2	mg/kg dry
Barium	610		53	mg/kg dry
Beryllium	1.9		1.6	mg/kg dry
Cadmium	7.0		1.6	mg/kg dry
Calcium	12000		260	mg/kg dry
Chromium	36		2.6	mg/kg dry
Cobalt	---	U	11	mg/kg dry
Copper	5600		5.3	mg/kg dry
Iron	54000		26	mg/kg dry
Lead	1400		4.2	mg/kg dry
Magnesium	3700		260	mg/kg dry
Manganese	16000		5.3	mg/kg dry
Nickel	73		11	mg/kg dry
Potassium	550		260	mg/kg dry
Selenium	---	U	11	mg/kg dry
Sodium	610		530	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS001-1824-001

Sample ID: 1303109-04

Metals ICP

Silver	---	U	2.6	mg/kg dry
Thallium	---	U	11	mg/kg dry
Vanadium	30		11	mg/kg dry
Zinc	14000		11	mg/kg dry
Tin	190		5.3	mg/kg dry

Mercury CVAA

Mercury	0.50		0.037	mg/kg dry
---------	------	--	-------	-----------

Field ID: P001-SS001-1824-002

Sample ID: 1303109-05

Metals ICP

Aluminum	8000		51	mg/kg dry
Antimony	26		10	mg/kg dry
Arsenic	72		4.1	mg/kg dry
Barium	730		51	mg/kg dry
Beryllium	1.7		1.5	mg/kg dry
Cadmium	6.6		1.5	mg/kg dry
Calcium	14000		260	mg/kg dry
Chromium	45		2.6	mg/kg dry
Cobalt	13		10	mg/kg dry
Copper	2200		5.1	mg/kg dry
Iron	100000		26	mg/kg dry
Lead	1500		4.1	mg/kg dry
Magnesium	4700		260	mg/kg dry
Manganese	19000		5.1	mg/kg dry
Nickel	72		10	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS001-1824-002

Sample ID: 1303109-05

Metals ICP

Potassium	500		260	mg/kg dry
Selenium	---	U	10	mg/kg dry
Sodium	620		510	mg/kg dry
Silver	---	U	2.6	mg/kg dry
Thallium	---	U	10	mg/kg dry
Vanadium	44		10	mg/kg dry
Zinc	13000		10	mg/kg dry
Tin	150		5.1	mg/kg dry

Mercury CVAA

Mercury	0.53		0.038	mg/kg dry
---------	------	--	-------	-----------

Field ID: P001-SS002-0206-001

Sample ID: 1303109-06

Metals ICP

Aluminum	8500		45	mg/kg dry
Antimony	---	U	8.9	mg/kg dry
Arsenic	---	U	3.6	mg/kg dry
Barium	---	U	45	mg/kg dry
Beryllium	---	U	1.3	mg/kg dry
Cadmium	---	U	1.3	mg/kg dry
Calcium	17000		220	mg/kg dry
Chromium	7.2		2.2	mg/kg dry
Cobalt	---	U	8.9	mg/kg dry
Copper	710		4.5	mg/kg dry
Iron	25000		22	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS002-0206-001

Sample ID: 1303109-06

Metals ICP

Lead	210		3.6	mg/kg dry
Magnesium	8500		220	mg/kg dry
Manganese	340		2.2	mg/kg dry
Nickel	31		8.9	mg/kg dry
Potassium	450		220	mg/kg dry
Selenium	---	U	8.9	mg/kg dry
Sodium	1300		450	mg/kg dry
Silver	---	U	2.2	mg/kg dry
Thallium	---	U	8.9	mg/kg dry
Vanadium	150		8.9	mg/kg dry
Zinc	400		8.9	mg/kg dry
Tin	27		4.5	mg/kg dry

Mercury CVAA

Mercury	---	U	0.044	mg/kg dry
---------	-----	---	-------	-----------

Field ID: P001-SS002-0612-001

Sample ID: 1303109-07

Metals ICP

Aluminum	6700		40	mg/kg dry
Antimony	24		8.0	mg/kg dry
Arsenic	130		3.2	mg/kg dry
Barium	120		40	mg/kg dry
Beryllium	2.3		1.2	mg/kg dry
Cadmium	2.9		1.2	mg/kg dry
Calcium	11000		200	mg/kg dry
Chromium	13		2.0	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS002-0612-001

Sample ID: 1303109-07

Metals ICP

Cobalt	12		8.0	mg/kg dry
Copper	190		4.0	mg/kg dry
Iron	150000		20	mg/kg dry
Lead	130		3.2	mg/kg dry
Magnesium	4200		200	mg/kg dry
Manganese	78000		20	mg/kg dry
Nickel	45		8.0	mg/kg dry
Potassium	510		200	mg/kg dry
Selenium	---	U	80	mg/kg dry
Sodium	670		400	mg/kg dry
Silver	9.0		2.0	mg/kg dry
Thallium	---	U	8.0	mg/kg dry
Vanadium	28		8.0	mg/kg dry
Zinc	37000		16	mg/kg dry
Tin	8.5		4.0	mg/kg dry

Mercury CVAA

Mercury	0.29		0.041	mg/kg dry
---------	------	--	-------	-----------

Field ID: P001-SS002-1218-001

Sample ID: 1303109-08

Metals ICP

Aluminum	13000		44	mg/kg dry
Antimony	10		8.8	mg/kg dry
Arsenic	41		3.5	mg/kg dry
Barium	110		44	mg/kg dry
Beryllium	2.4		1.3	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS002-1218-001

Sample ID: 1303109-08

Metals ICP

Cadmium	2.3		1.3	mg/kg dry
Calcium	16000		220	mg/kg dry
Chromium	18		2.2	mg/kg dry
Cobalt	---	U	8.8	mg/kg dry
Copper	73		4.4	mg/kg dry
Iron	47000		22	mg/kg dry
Lead	160		3.5	mg/kg dry
Magnesium	4200		220	mg/kg dry
Manganese	18000		4.4	mg/kg dry
Nickel	21		8.8	mg/kg dry
Potassium	750		220	mg/kg dry
Selenium	---	U	18	mg/kg dry
Sodium	910		440	mg/kg dry
Silver	2.7		2.2	mg/kg dry
Thallium	---	U	8.8	mg/kg dry
Vanadium	24		8.8	mg/kg dry
Zinc	24000		8.8	mg/kg dry
Tin	8.3		4.4	mg/kg dry

Mercury CVAA

Mercury	---	U	0.047	mg/kg dry
---------	-----	---	-------	-----------

Field ID: P001-SS002-1824-001

Sample ID: 1303109-09

Metals ICP

Aluminum	11000		46	mg/kg dry
Antimony	---	U	9.3	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS002-1824-001

Sample ID: 1303109-09

Metals ICP

Arsenic	54		3.7	mg/kg dry
Barium	110		46	mg/kg dry
Beryllium	---	U	1.4	mg/kg dry
Cadmium	---	U	1.4	mg/kg dry
Calcium	13000		230	mg/kg dry
Chromium	18		2.3	mg/kg dry
Cobalt	---	U	9.3	mg/kg dry
Copper	88		4.6	mg/kg dry
Iron	37000		23	mg/kg dry
Lead	64		3.7	mg/kg dry
Magnesium	3400		230	mg/kg dry
Manganese	8200		2.3	mg/kg dry
Nickel	16		9.3	mg/kg dry
Potassium	630		230	mg/kg dry
Selenium	---	U	9.3	mg/kg dry
Sodium	980		460	mg/kg dry
Silver	---	U	2.3	mg/kg dry
Thallium	---	U	9.3	mg/kg dry
Vanadium	24		9.3	mg/kg dry
Zinc	13000		9.3	mg/kg dry
Tin	7.9		4.6	mg/kg dry

Mercury CVAA

Mercury	0.13		0.045	mg/kg dry
---------	------	--	-------	-----------



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS003-0206-001

Sample ID: 1303109-10

Metals ICP

Aluminum	8800		49	mg/kg dry
Antimony	---	U	9.7	mg/kg dry
Arsenic	65		3.9	mg/kg dry
Barium	130		49	mg/kg dry
Beryllium	---	U	1.5	mg/kg dry
Cadmium	2.2		1.5	mg/kg dry
Calcium	41000		240	mg/kg dry
Chromium	21		2.4	mg/kg dry
Cobalt	14		9.7	mg/kg dry
Copper	1700		4.9	mg/kg dry
Iron	75000		24	mg/kg dry
Lead	150		3.9	mg/kg dry
Magnesium	15000		240	mg/kg dry
Manganese	16000		4.9	mg/kg dry
Nickel	62		9.7	mg/kg dry
Potassium	1300		240	mg/kg dry
Selenium	---	U	9.7	mg/kg dry
Sodium	990		490	mg/kg dry
Silver	---	U	2.4	mg/kg dry
Thallium	---	U	9.7	mg/kg dry
Vanadium	69		9.7	mg/kg dry
Zinc	12000		9.7	mg/kg dry
Tin	130		4.9	mg/kg dry

Mercury CVAA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
Field ID: P001-SS003-0206-001				
Sample ID: 1303109-10				
Mercury CVAA				
Mercury	0.070		0.038	mg/kg dry
Field ID: P001-SS003-0612-001				
Sample ID: 1303109-11				

Metals ICP

Aluminum	5900		45	mg/kg dry
Antimony	35		9.0	mg/kg dry
Arsenic	150		3.6	mg/kg dry
Barium	300		45	mg/kg dry
Beryllium	2.7		1.3	mg/kg dry
Cadmium	3.9		1.3	mg/kg dry
Calcium	42000		220	mg/kg dry
Chromium	34		2.2	mg/kg dry
Cobalt	10		9.0	mg/kg dry
Copper	590		4.5	mg/kg dry
Iron	110000		22	mg/kg dry
Lead	270		3.6	mg/kg dry
Magnesium	18000		220	mg/kg dry
Manganese	38000		11	mg/kg dry
Nickel	45		9.0	mg/kg dry
Potassium	470		220	mg/kg dry
Selenium	---	U	45	mg/kg dry
Sodium	630		450	mg/kg dry
Silver	5.0		2.2	mg/kg dry
Thallium	---	U	9.0	mg/kg dry
Vanadium	28		9.0	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS003-0612-001

Sample ID: 1303109-11

Metals ICP

Zinc	31000		9.0	mg/kg dry
Tin	43		4.5	mg/kg dry

Mercury CVAA

Mercury	0.16		0.039	mg/kg dry
---------	------	--	-------	-----------

Field ID: P001-SS003-1218-001

Sample ID: 1303109-12

Metals ICP

Aluminum	7500		45	mg/kg dry
Antimony	25		9.0	mg/kg dry
Arsenic	140		3.6	mg/kg dry
Barium	300		45	mg/kg dry
Beryllium	2.7		1.3	mg/kg dry
Cadmium	3.0		1.3	mg/kg dry
Calcium	13000		220	mg/kg dry
Chromium	91		2.2	mg/kg dry
Cobalt	16		9.0	mg/kg dry
Copper	810		4.5	mg/kg dry
Iron	110000		22	mg/kg dry
Lead	350		3.6	mg/kg dry
Magnesium	2600		220	mg/kg dry
Manganese	35000		11	mg/kg dry
Nickel	120		9.0	mg/kg dry
Potassium	630		220	mg/kg dry
Selenium	---	U	45	mg/kg dry
Sodium	630		450	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS003-1218-001

Sample ID: 1303109-12

Metals ICP

Silver	4.7		2.2	mg/kg dry
Thallium	---	U	9.0	mg/kg dry
Vanadium	37		9.0	mg/kg dry
Zinc	24000		9.0	mg/kg dry
Tin	32		4.5	mg/kg dry

Mercury CVAA

Mercury	0.19		0.047	mg/kg dry
---------	------	--	-------	-----------

Field ID: P001-SS003-1824-001

Sample ID: 1303109-13

Metals ICP

Aluminum	6400		41	mg/kg dry
Antimony	28		8.1	mg/kg dry
Arsenic	350		3.2	mg/kg dry
Barium	270		41	mg/kg dry
Beryllium	6.0		1.2	mg/kg dry
Cadmium	4.8		1.2	mg/kg dry
Calcium	41000		200	mg/kg dry
Chromium	12		2.0	mg/kg dry
Cobalt	12		8.1	mg/kg dry
Copper	30		4.1	mg/kg dry
Iron	170000		20	mg/kg dry
Lead	51		3.2	mg/kg dry
Magnesium	8100		200	mg/kg dry
Manganese	99000		41	mg/kg dry
Nickel	46		8.1	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS003-1824-001

Sample ID: 1303109-13

Metals ICP

Potassium	920		200	mg/kg dry
Selenium	---	U	160	mg/kg dry
Sodium	710		410	mg/kg dry
Silver	12		2.0	mg/kg dry
Thallium	---	U	8.1	mg/kg dry
Vanadium	24		8.1	mg/kg dry
Zinc	77000		41	mg/kg dry
Tin	---	U	4.1	mg/kg dry

Mercury CVAA

Mercury	---	U	0.029	mg/kg dry
---------	-----	---	-------	-----------

Field ID: P001-SS004-0206-001

Sample ID: 1303109-14

Metals ICP

Aluminum	12000		49	mg/kg dry
Antimony	---	U	9.8	mg/kg dry
Arsenic	6.7		3.9	mg/kg dry
Barium	59		49	mg/kg dry
Beryllium	---	U	1.5	mg/kg dry
Cadmium	6.1		1.5	mg/kg dry
Calcium	16000		240	mg/kg dry
Chromium	33		2.4	mg/kg dry
Cobalt	---	U	9.8	mg/kg dry
Copper	2000		4.9	mg/kg dry
Iron	33000		24	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS004-0206-001

Sample ID: 1303109-14

Metals ICP

Lead	650		3.9	mg/kg dry
Magnesium	7300		240	mg/kg dry
Manganese	2600		2.4	mg/kg dry
Nickel	60		9.8	mg/kg dry
Potassium	600		240	mg/kg dry
Selenium	---	U	9.8	mg/kg dry
Sodium	1700		490	mg/kg dry
Silver	---	U	2.4	mg/kg dry
Thallium	---	U	9.8	mg/kg dry
Vanadium	85		9.8	mg/kg dry
Zinc	6600		9.8	mg/kg dry
Tin	130		4.9	mg/kg dry

Mercury CVAA

Mercury	0.13		0.034	mg/kg dry
---------	------	--	-------	-----------

Field ID: P001-SS004-0612-001

Sample ID: 1303109-15

Metals ICP

Aluminum	16000		43	mg/kg dry
Antimony	---	U	8.5	mg/kg dry
Arsenic	6.5		3.4	mg/kg dry
Barium	98		43	mg/kg dry
Beryllium	1.3		1.3	mg/kg dry
Cadmium	13		1.3	mg/kg dry
Calcium	26000		210	mg/kg dry
Chromium	28		2.1	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS004-0612-001

Sample ID: 1303109-15

Metals ICP

Cobalt	8.9		8.5	mg/kg dry
Copper	3900		4.3	mg/kg dry
Iron	24000		21	mg/kg dry
Lead	1500		3.4	mg/kg dry
Magnesium	6900		210	mg/kg dry
Manganese	380		2.1	mg/kg dry
Nickel	79		8.5	mg/kg dry
Potassium	720		210	mg/kg dry
Selenium	---	U	8.5	mg/kg dry
Sodium	2800		430	mg/kg dry
Silver	---	U	2.1	mg/kg dry
Thallium	---	U	8.5	mg/kg dry
Vanadium	45		8.5	mg/kg dry
Zinc	9900		8.5	mg/kg dry
Tin	260		4.3	mg/kg dry

Mercury CVAA

Mercury	0.34		0.038	mg/kg dry
---------	------	--	-------	-----------

Field ID: P001-SS004-1218-001

Sample ID: 1303109-16

Metals ICP

Aluminum	12000		48	mg/kg dry
Antimony	---	U	9.6	mg/kg dry
Arsenic	8.0		3.8	mg/kg dry
Barium	200		48	mg/kg dry
Beryllium	---	U	1.4	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS004-1218-001

Sample ID: 1303109-16

Metals ICP

Cadmium	9.5		1.4	mg/kg dry
Calcium	31000		240	mg/kg dry
Chromium	31		2.4	mg/kg dry
Cobalt	---	U	9.6	mg/kg dry
Copper	2400		4.8	mg/kg dry
Iron	17000		24	mg/kg dry
Lead	1100		3.8	mg/kg dry
Magnesium	3100		240	mg/kg dry
Manganese	280		2.4	mg/kg dry
Nickel	42		9.6	mg/kg dry
Potassium	1200		240	mg/kg dry
Selenium	---	U	9.6	mg/kg dry
Sodium	2800		480	mg/kg dry
Silver	---	U	2.4	mg/kg dry
Thallium	---	U	9.6	mg/kg dry
Vanadium	30		9.6	mg/kg dry
Zinc	7300		9.6	mg/kg dry
Tin	170		4.8	mg/kg dry

Mercury CVAA

Mercury	0.29		0.047	mg/kg dry
---------	------	--	-------	-----------

Field ID: P001-SS004-1824-001

Sample ID: 1303109-17

Metals ICP

Aluminum	11000		45	mg/kg dry
Antimony	---	U	9.0	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS004-1824-001

Sample ID: 1303109-17

Metals ICP

Arsenic	11		3.6	mg/kg dry
Barium	59		45	mg/kg dry
Beryllium	1.4		1.4	mg/kg dry
Cadmium	57		1.4	mg/kg dry
Calcium	41000		230	mg/kg dry
Chromium	17		2.3	mg/kg dry
Cobalt	---	U	9.0	mg/kg dry
Copper	1800		4.5	mg/kg dry
Iron	33000		23	mg/kg dry
Lead	2800		3.6	mg/kg dry
Magnesium	7100		230	mg/kg dry
Manganese	350		2.3	mg/kg dry
Nickel	34		9.0	mg/kg dry
Potassium	820		230	mg/kg dry
Selenium	---	U	9.0	mg/kg dry
Sodium	2100		450	mg/kg dry
Silver	2.4		2.3	mg/kg dry
Thallium	---	U	9.0	mg/kg dry
Vanadium	33		9.0	mg/kg dry
Zinc	27000		9.0	mg/kg dry
Tin	380		4.5	mg/kg dry

Mercury CVAA

Mercury	0.97		0.040	mg/kg dry
---------	------	--	-------	-----------

Field ID: P001-SS005-0206-001

Sample ID: 1303109-18



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS005-0206-001

Sample ID: 1303109-18

Metals ICP

Aluminum	12000		48	mg/kg dry
Antimony	---	U	9.7	mg/kg dry
Arsenic	---	U	3.9	mg/kg dry
Barium	59		48	mg/kg dry
Beryllium	---	U	1.5	mg/kg dry
Cadmium	---	U	1.5	mg/kg dry
Calcium	21000		240	mg/kg dry
Chromium	24		2.4	mg/kg dry
Cobalt	12		9.7	mg/kg dry
Copper	160		4.8	mg/kg dry
Iron	29000		24	mg/kg dry
Lead	45		3.9	mg/kg dry
Magnesium	12000		240	mg/kg dry
Manganese	430		2.4	mg/kg dry
Nickel	26		9.7	mg/kg dry
Potassium	1200		240	mg/kg dry
Selenium	---	U	9.7	mg/kg dry
Sodium	710		480	mg/kg dry
Silver	---	U	2.4	mg/kg dry
Thallium	---	U	9.7	mg/kg dry
Vanadium	100		9.7	mg/kg dry
Zinc	380		9.7	mg/kg dry
Tin	5.6		4.8	mg/kg dry

Mercury CVAA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS005-0206-001

Sample ID: 1303109-18

Mercury CVAA

Mercury	---	U	0.040	mg/kg dry
---------	-----	---	-------	-----------

Field ID: P001-SS005-0609-001

Sample ID: 1303109-19

Metals ICP

Aluminum	12000		43	mg/kg dry
Antimony	---	U	8.6	mg/kg dry
Arsenic	---	U	3.5	mg/kg dry
Barium	---	U	43	mg/kg dry
Beryllium	---	U	1.3	mg/kg dry
Cadmium	---	U	1.3	mg/kg dry
Calcium	21000		220	mg/kg dry
Chromium	18		2.2	mg/kg dry
Cobalt	12		8.6	mg/kg dry
Copper	67		4.3	mg/kg dry
Iron	26000		22	mg/kg dry
Lead	13		3.5	mg/kg dry
Magnesium	14000		220	mg/kg dry
Manganese	350		2.2	mg/kg dry
Nickel	24		8.6	mg/kg dry
Potassium	880		220	mg/kg dry
Selenium	---	U	8.6	mg/kg dry
Sodium	500		430	mg/kg dry
Silver	---	U	2.2	mg/kg dry
Thallium	---	U	8.6	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS005-0609-001

Sample ID: 1303109-19

Metals ICP

Vanadium	89		8.6	mg/kg dry
Zinc	97		8.6	mg/kg dry
Tin	---	U	4.3	mg/kg dry

Mercury CVAA

Mercury	---	U	0.032	mg/kg dry
---------	-----	---	-------	-----------

Field ID: P001-SS005-1318-001

Sample ID: 1303109-20

Metals ICP

Aluminum	7900		41	mg/kg dry
Antimony	20		8.2	mg/kg dry
Arsenic	100		3.3	mg/kg dry
Barium	280		41	mg/kg dry
Beryllium	2.8		1.2	mg/kg dry
Cadmium	6.2		1.2	mg/kg dry
Calcium	44000		210	mg/kg dry
Chromium	18		2.1	mg/kg dry
Cobalt	8.8		8.2	mg/kg dry
Copper	150		4.1	mg/kg dry
Iron	100000		21	mg/kg dry
Lead	360		3.3	mg/kg dry
Magnesium	16000		210	mg/kg dry
Manganese	52000		10	mg/kg dry
Nickel	42		8.2	mg/kg dry
Potassium	690		210	mg/kg dry
Selenium	---	U	41	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS005-1318-001

Sample ID: 1303109-20

Metals ICP

Sodium	---	U	410	mg/kg dry
Silver	6.8		2.1	mg/kg dry
Thallium	---	U	8.2	mg/kg dry
Vanadium	26		8.2	mg/kg dry
Zinc	22000		8.2	mg/kg dry
Tin	15		4.1	mg/kg dry

Mercury CVAA

Mercury	0.24		0.034	mg/kg dry
---------	------	--	-------	-----------

Field ID: P001-SS005-1824-001

Sample ID: 1303109-21

Metals ICP

Aluminum	7400		46	mg/kg dry
Antimony	47		9.3	mg/kg dry
Arsenic	110		3.7	mg/kg dry
Barium	160		46	mg/kg dry
Beryllium	2.8		1.4	mg/kg dry
Cadmium	2.6		1.4	mg/kg dry
Calcium	15000		230	mg/kg dry
Chromium	15		2.3	mg/kg dry
Cobalt	12		9.3	mg/kg dry
Copper	45		4.6	mg/kg dry
Iron	150000		23	mg/kg dry
Lead	78		3.7	mg/kg dry
Magnesium	4100		230	mg/kg dry
Manganese	71000		23	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS005-1824-001

Sample ID: 1303109-21

Metals ICP

Nickel	42		9.3	mg/kg dry
Potassium	480		230	mg/kg dry
Selenium	---	U	46	mg/kg dry
Sodium	---	U	460	mg/kg dry
Silver	8.5		2.3	mg/kg dry
Thallium	---	U	9.3	mg/kg dry
Vanadium	25		9.3	mg/kg dry
Zinc	32000		9.3	mg/kg dry
Tin	---	U	4.6	mg/kg dry

Mercury CVAA

Mercury	0.090		0.040	mg/kg dry
---------	-------	--	-------	-----------

Field ID: P001-SS006-0206-001

Sample ID: 1303109-22

Metals ICP

Aluminum	8500		43	mg/kg dry
Antimony	---	U	8.6	mg/kg dry
Arsenic	3.7		3.4	mg/kg dry
Barium	84		43	mg/kg dry
Beryllium	---	U	1.3	mg/kg dry
Cadmium	---	U	1.3	mg/kg dry
Calcium	44000		210	mg/kg dry
Chromium	32		2.1	mg/kg dry
Cobalt	---	U	8.6	mg/kg dry
Copper	850		4.3	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS006-0206-001

Sample ID: 1303109-22

Metals ICP

Iron	31000		21	mg/kg dry
Lead	260		3.4	mg/kg dry
Magnesium	19000		210	mg/kg dry
Manganese	470		2.1	mg/kg dry
Nickel	29		8.6	mg/kg dry
Potassium	940		210	mg/kg dry
Selenium	---	U	8.6	mg/kg dry
Sodium	570		430	mg/kg dry
Silver	---	U	2.1	mg/kg dry
Thallium	---	U	8.6	mg/kg dry
Vanadium	58		8.6	mg/kg dry
Zinc	960		8.6	mg/kg dry
Tin	28		4.3	mg/kg dry

Mercury CVAA

Mercury	0.035		0.035	mg/kg dry
---------	-------	--	-------	-----------

Field ID: P001-SS006-0612-001

Sample ID: 1303109-23

Metals ICP

Aluminum	8500		43	mg/kg dry
Antimony	20		8.6	mg/kg dry
Arsenic	11		3.4	mg/kg dry
Barium	250		43	mg/kg dry
Beryllium	1.7		1.3	mg/kg dry
Cadmium	18		1.3	mg/kg dry
Calcium	41000		210	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS006-0612-001

Sample ID: 1303109-23

Metals ICP

Chromium	100		2.1	mg/kg dry
Cobalt	---	U	8.6	mg/kg dry
Copper	9100		4.3	mg/kg dry
Iron	21000		21	mg/kg dry
Lead	2700		3.4	mg/kg dry
Magnesium	16000		210	mg/kg dry
Manganese	810		2.1	mg/kg dry
Nickel	810		8.6	mg/kg dry
Potassium	450		210	mg/kg dry
Selenium	---	U	8.6	mg/kg dry
Sodium	---	U	430	mg/kg dry
Silver	3.2		2.1	mg/kg dry
Thallium	---	U	8.6	mg/kg dry
Vanadium	32		8.6	mg/kg dry
Zinc	8900		8.6	mg/kg dry
Tin	780		4.3	mg/kg dry

Mercury CVAA

Mercury	0.88		0.074	mg/kg dry
---------	------	--	-------	-----------

Field ID: P001-SS006-1218-001

Sample ID: 1303109-24

Metals ICP

Aluminum	9400		44	mg/kg dry
Antimony	110		8.8	mg/kg dry
Arsenic	17		3.5	mg/kg dry
Barium	330		44	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS006-1218-001

Sample ID: 1303109-24

Metals ICP

Beryllium	7.3		1.3	mg/kg dry
Cadmium	48		1.3	mg/kg dry
Calcium	46000		220	mg/kg dry
Chromium	79		2.2	mg/kg dry
Cobalt	11		8.8	mg/kg dry
Copper	20000		4.4	mg/kg dry
Iron	42000		22	mg/kg dry
Lead	11000		3.5	mg/kg dry
Magnesium	4900		220	mg/kg dry
Manganese	3700		2.2	mg/kg dry
Nickel	440		8.8	mg/kg dry
Potassium	510		220	mg/kg dry
Selenium	---	U	8.8	mg/kg dry
Sodium	530		440	mg/kg dry
Silver	9.6		2.2	mg/kg dry
Thallium	---	UL	8.8	mg/kg dry
Vanadium	38		8.8	mg/kg dry
Zinc	37000		18	mg/kg dry
Tin	800		4.4	mg/kg dry

Mercury CVAA

Mercury	1.2		0.16	mg/kg dry
---------	-----	--	------	-----------

Field ID: P001-SS006-1218-002

Sample ID: 1303109-25

Metals ICP

Aluminum	9500		42	mg/kg dry
----------	------	--	----	-----------



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS006-1218-002

Sample ID: 1303109-25

Metals ICP

Antimony	32		8.4	mg/kg dry
Arsenic	15		3.4	mg/kg dry
Barium	320		42.	mg/kg dry
Beryllium	4.3		1.3	mg/kg dry
Cadmium	35		1.3	mg/kg dry
Calcium	45000		210	mg/kg dry
Chromium	67		2.1	mg/kg dry
Cobalt	10		8.4	mg/kg dry
Copper	16000		4.2	mg/kg dry
Iron	45000		21	mg/kg dry
Lead	5800		3.4	mg/kg dry
Magnesium	4300		210	mg/kg dry
Manganese	1600		2.1	mg/kg dry
Nickel	540		8.4	mg/kg dry
Potassium	480		210	mg/kg dry
Selenium	---	U	8.4	mg/kg dry
Sodium	---	U	420	mg/kg dry
Silver	6.2		2.1	mg/kg dry
Thallium	---	U	8.4	mg/kg dry
Vanadium	37		8.4	mg/kg dry
Zinc	26000		8.4	mg/kg dry
Tin	780		4.2	mg/kg dry

Mercury CVAA

Mercury	0.99		0.042	mg/kg dry
---------	------	--	-------	-----------



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS007-1218-001

Sample ID: 1303109-26

Metals ICP

Aluminum	10000		40	mg/kg dry
Antimony	18		8.0	mg/kg dry
Arsenic	79		3.2	mg/kg dry
Barium	210		40	mg/kg dry
Beryllium	6.0		1.2	mg/kg dry
Cadmium	2.9		1.2	mg/kg dry
Calcium	31000		200	mg/kg dry
Chromium	13		2.0	mg/kg dry
Cobalt	11		8.0	mg/kg dry
Copper	360		4.0	mg/kg dry
Iron	90000		20	mg/kg dry
Lead	180		3.2	mg/kg dry
Magnesium	7900		200	mg/kg dry
Manganese	38000		10	mg/kg dry
Nickel	40		8.0	mg/kg dry
Potassium	1200		200	mg/kg dry
Selenium	---	U	40	mg/kg dry
Sodium	430		400	mg/kg dry
Silver	4.9		2.0	mg/kg dry
Thallium	---	U	8.0	mg/kg dry
Vanadium	24		8.0	mg/kg dry
Zinc	21000		8.0	mg/kg dry
Tin	12		4.0	mg/kg dry

Mercury CVAA

Mercury	---	U	0.043	mg/kg dry
---------	-----	---	-------	-----------



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS007-1824-001

Sample ID: 1303109-27

Metals ICP

Aluminum	16000		42	mg/kg dry
Antimony	---	U	8.5	mg/kg dry
Arsenic	14		3.4	mg/kg dry
Barium	190		42	mg/kg dry
Beryllium	7.1		1.3	mg/kg dry
Cadmium	---	U	1.3	mg/kg dry
Calcium	37000		210	mg/kg dry
Chromium	12		2.1	mg/kg dry
Cobalt	---	U	8.5	mg/kg dry
Copper	20		4.2	mg/kg dry
Iron	25000		21	mg/kg dry
Lead	36		3.4	mg/kg dry
Magnesium	6700		210	mg/kg dry
Manganese	46000		21	mg/kg dry
Nickel	14		8.5	mg/kg dry
Potassium	1500		210	mg/kg dry
Selenium	---	U	85	mg/kg dry
Sodium	480		420	mg/kg dry
Silver	5.2		2.1	mg/kg dry
Thallium	---	U	8.5	mg/kg dry
Vanadium	17		8.5	mg/kg dry
Zinc	5700		8.5	mg/kg dry
Tin	6.6		4.2	mg/kg dry

Mercury CVAA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS007-1824-001

Sample ID: 1303109-27

Mercury CVAA

Mercury	---	U	0.035	mg/kg dry
---------	-----	---	-------	-----------

Field ID: P001-SS008-0206-001

Sample ID: 1303109-28

Metals ICP

Aluminum	14000		39	mg/kg dry
Antimony	---	U	7.8	mg/kg dry
Arsenic	5.0		3.1	mg/kg dry
Barium	150		39	mg/kg dry
Beryllium	3.6		1.2	mg/kg dry
Cadmium	5.0		1.2	mg/kg dry
Calcium	15000		190	mg/kg dry
Chromium	65		1.9	mg/kg dry
Cobalt	11		7.8	mg/kg dry
Copper	4400		3.9	mg/kg dry
Iron	53000		19	mg/kg dry
Lead	740		3.1	mg/kg dry
Magnesium	5700		190	mg/kg dry
Manganese	970		1.9	mg/kg dry
Nickel	120		7.8	mg/kg dry
Potassium	1600		190	mg/kg dry
Selenium	---	U	7.8	mg/kg dry
Sodium	910		390	mg/kg dry
Silver	2.7		1.9	mg/kg dry
Thallium	---	U	7.8	mg/kg dry
Vanadium	70		7.8	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS008-0206-001

Sample ID: 1303109-28

Metals ICP

Zinc	4400		7.8	mg/kg dry
Tin	200		3.9	mg/kg dry

Mercury CVAA

Mercury	0.40		0.032	mg/kg dry
---------	------	--	-------	-----------

Field ID: P001-SS008-2224-001

Sample ID: 1303109-29

Metals ICP

Aluminum	3700		48	mg/kg dry
Antimony	21		9.7	mg/kg dry
Arsenic	67		3.9	mg/kg dry
Barium	170		48	mg/kg dry
Beryllium	1.7		1.5	mg/kg dry
Cadmium	3.3		1.5	mg/kg dry
Calcium	4900		240	mg/kg dry
Chromium	16		2.4	mg/kg dry
Cobalt	15		9.7	mg/kg dry
Copper	340		4.8	mg/kg dry
Iron	79000		24	mg/kg dry
Lead	540		3.9	mg/kg dry
Magnesium	1400		240	mg/kg dry
Manganese	15000		12	mg/kg dry
Nickel	38		9.7	mg/kg dry
Potassium	360		240	mg/kg dry
Selenium	---	U	9.7	mg/kg dry
Sodium	---	U	480	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS008-2224-001

Sample ID: 1303109-29

Metals ICP

Silver	---	U	2.4	mg/kg dry
Thallium	---	U	9.7	mg/kg dry
Vanadium	19		9.7	mg/kg dry
Zinc	23000		9.7	mg/kg dry
Tin	30		4.8	mg/kg dry

Mercury CVAA

Mercury	0.38		0.033	mg/kg dry
---------	------	--	-------	-----------

Field ID: P001-SS009-0206-001

Sample ID: 1303109-30

Metals ICP

Aluminum	13000		43	mg/kg dry
Antimony	130		8.6	mg/kg dry
Arsenic	22		3.5	mg/kg dry
Barium	560		43	mg/kg dry
Beryllium	7.5		1.3	mg/kg dry
Cadmium	82		1.3	mg/kg dry
Calcium	37000		220	mg/kg dry
Chromium	94		2.2	mg/kg dry
Cobalt	14		8.6	mg/kg dry
Copper	18000		4.3	mg/kg dry
Iron	41000		22	mg/kg dry
Lead	11000		3.5	mg/kg dry
Magnesium	4200		220	mg/kg dry
Manganese	1900		2.2	mg/kg dry
Nickel	300		8.6	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS009-0206-001

Sample ID: 1303109-30

Metals ICP

Potassium	440		220	mg/kg dry
Selenium	---	U	8.6	mg/kg dry
Sodium	---	U	430	mg/kg dry
Silver	9.8		2.2	mg/kg dry
Thallium	---	U	8.6	mg/kg dry
Vanadium	45		8.6	mg/kg dry
Zinc	60000		43	mg/kg dry
Tin	1200		4.3	mg/kg dry

Mercury CVAA

Mercury	3.4		0.39	mg/kg dry
---------	-----	--	------	-----------

Field ID: P001-SS010-1824-001

Sample ID: 1303109-31

Metals ICP

Aluminum	5100		68	mg/kg dry
Antimony	39		14	mg/kg dry
Arsenic	27		5.4	mg/kg dry
Barium	690		68	mg/kg dry
Beryllium	3.9		2.0	mg/kg dry
Cadmium	23		2.0	mg/kg dry
Calcium	35000		340	mg/kg dry
Chromium	77		3.4	mg/kg dry
Cobalt	---	U	14	mg/kg dry
Copper	25000		6.8	mg/kg dry
Iron	49000		34	mg/kg dry
Lead	5400		5.4	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS010-1824-001

Sample ID: 1303109-31

Metals ICP

Magnesium	14000		340	mg/kg dry
Manganese	2800		3.4	mg/kg dry
Nickel	580		14	mg/kg dry
Potassium	340		340	mg/kg dry
Selenium	---	U	14	mg/kg dry
Sodium	740		680	mg/kg dry
Silver	8.5		3.4	mg/kg dry
Thallium	---	U	14	mg/kg dry
Vanadium	49		14	mg/kg dry
Zinc	14000		14	mg/kg dry
Tin	1100		6.8	mg/kg dry

Mercury CVAA

Mercury	2.0		0.21	mg/kg dry
---------	-----	--	------	-----------

Field ID: P001-SS013-0206-001

Sample ID: 1303109-32

Metals ICP

Aluminum	12000		39	mg/kg dry
Antimony	---	U	7.9	mg/kg dry
Arsenic	---	U	3.2	mg/kg dry
Barium	130		39	mg/kg dry
Beryllium	---	U	1.2	mg/kg dry
Cadmium	---	U	1.2	mg/kg dry
Calcium	13000		200	mg/kg dry
Chromium	37		2.0	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS013-0206-001

Sample ID: 1303109-32

Metals ICP

Cobalt	10		7.9	mg/kg dry
Copper	180		3.9	mg/kg dry
Iron	38000		20	mg/kg dry
Lead	61		3.2	mg/kg dry
Magnesium	7200		200	mg/kg dry
Manganese	330		2.0	mg/kg dry
Nickel	25		7.9	mg/kg dry
Potassium	1800		200	mg/kg dry
Selenium	---	U	7.9	mg/kg dry
Sodium	660		390	mg/kg dry
Silver	---	U	2.0	mg/kg dry
Thallium	---	U	7.9	mg/kg dry
Vanadium	74		7.9	mg/kg dry
Zinc	610		7.9	mg/kg dry
Tin	---	U	3.9	mg/kg dry

Mercury CVAA

Mercury	---	U	0.031	mg/kg dry
---------	-----	---	-------	-----------

Field ID: P001-SS013-0612-001

Sample ID: 1303109-33

Metals ICP

Aluminum	6200		40	mg/kg dry
Antimony	---	U	8.1	mg/kg dry
Arsenic	---	U	3.2	mg/kg dry
Barium	47		40	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS013-0612-001

Sample ID: 1303109-33

Metals ICP

Beryllium	---	U	1.2	mg/kg dry
Cadmium	---	U	1.2	mg/kg dry
Calcium	5400		200	mg/kg dry
Chromium	24		2.0	mg/kg dry
Cobalt	8.1		8.1	mg/kg dry
Copper	110		4.0	mg/kg dry
Iron	35000		20	mg/kg dry
Lead	58		3.2	mg/kg dry
Magnesium	4300		200	mg/kg dry
Manganese	180		2.0	mg/kg dry
Nickel	17		8.1	mg/kg dry
Potassium	1700		200	mg/kg dry
Selenium	---	U	8.1	mg/kg dry
Sodium	---	U	400	mg/kg dry
Silver	---	U	2.0	mg/kg dry
Thallium	---	U	8.1	mg/kg dry
Vanadium	69		8.1	mg/kg dry
Zinc	280		8.1	mg/kg dry
Tin	---	U	4.0	mg/kg dry

Mercury CVAA

Mercury	---	U	0.039	mg/kg dry
---------	-----	---	-------	-----------

Field ID: P001-SS013-1218-001

Sample ID: 1303109-34

Metals ICP



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS013-1218-001

Sample ID: 1303109-34

Metals ICP

Aluminum	3900		40	mg/kg dry
Antimony	26		7.9	mg/kg dry
Arsenic	3.8		3.2	mg/kg dry
Barium	50		40	mg/kg dry
Beryllium	---	U	1.2	mg/kg dry
Cadmium	4.5		1.2	mg/kg dry
Calcium	4200		200	mg/kg dry
Chromium	17		2.0	mg/kg dry
Cobalt	---	U	7.9	mg/kg dry
Copper	3300		4.0	mg/kg dry
Iron	13000		20	mg/kg dry
Lead	1100		3.2	mg/kg dry
Magnesium	1700		200	mg/kg dry
Manganese	290		2.0	mg/kg dry
Nickel	40		7.9	mg/kg dry
Potassium	310		200	mg/kg dry
Selenium	---	U	7.9	mg/kg dry
Sodium	---	U	400	mg/kg dry
Silver	---	U	2.0	mg/kg dry
Thallium	---	U	7.9	mg/kg dry
Vanadium	25		7.9	mg/kg dry
Zinc	3700		7.9	mg/kg dry
Tin	98		4.0	mg/kg dry

Mercury CVAA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS013-1218-001

Sample ID: 1303109-34

Mercury CVAA

Mercury	0.23		0.039	mg/kg dry
---------	------	--	-------	-----------

Field ID: P001-SS013-1824-001

Sample ID: 1303109-35

Metals ICP

Aluminum	26000		43	mg/kg dry
Antimony	14		8.6	mg/kg dry
Arsenic	15		3.4	mg/kg dry
Barium	510		43	mg/kg dry
Beryllium	6.9		1.3	mg/kg dry
Cadmium	7.5		1.3	mg/kg dry
Calcium	60000		210	mg/kg dry
Chromium	200		2.1	mg/kg dry
Cobalt	17		8.6	mg/kg dry
Copper	5400		4.3	mg/kg dry
Iron	50000		21	mg/kg dry
Lead	2400		3.4	mg/kg dry
Magnesium	9800		210	mg/kg dry
Manganese	42000		11	mg/kg dry
Nickel	170		8.6	mg/kg dry
Potassium	1500		210	mg/kg dry
Selenium	---	U	43	mg/kg dry
Sodium	650		430	mg/kg dry
Silver	6.0		2.1	mg/kg dry
Thallium	---	U	8.6	mg/kg dry
Vanadium	21		8.6	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS013-1824-001

Sample ID: 1303109-35

Metals ICP

Zinc	6700		8.6	mg/kg dry
Tin	180		4.3	mg/kg dry

Mercury CVAA

Mercury	0.047		0.036	mg/kg dry
---------	-------	--	-------	-----------

Field ID: P001-SS014-0206-001

Sample ID: 1303109-36

Metals ICP

Aluminum	13000		42	mg/kg dry
Antimony	---	U	8.3	mg/kg dry
Arsenic	---	U	3.3	mg/kg dry
Barium	54		42	mg/kg dry
Beryllium	---	U	1.2	mg/kg dry
Cadmium	---	U	1.2	mg/kg dry
Calcium	22000		210	mg/kg dry
Chromium	19		2.1	mg/kg dry
Cobalt	12		8.3	mg/kg dry
Copper	60		4.2	mg/kg dry
Iron	27000		21	mg/kg dry
Lead	15		3.3	mg/kg dry
Magnesium	12000		210	mg/kg dry
Manganese	360		2.1	mg/kg dry
Nickel	28		8.3	mg/kg dry
Potassium	1000		210	mg/kg dry
Selenium	---	U	8.3	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS014-0206-001

Sample ID: 1303109-36

Metals ICP

Sodium	1300		420	mg/kg dry
Silver	---	U	2.1	mg/kg dry
Thallium	---	U	8.3	mg/kg dry
Vanadium	92		8.3	mg/kg dry
Zinc	120		8.3	mg/kg dry
Tin	---	U	4.2	mg/kg dry

Mercury CVAA

Mercury	---	U	0.038	mg/kg dry
---------	-----	---	-------	-----------

Field ID: P001-SS014-2124-001

Sample ID: 1303109-37

Metals ICP

Aluminum	21000		43	mg/kg dry
Antimony	14		8.7	mg/kg dry
Arsenic	46		3.5	mg/kg dry
Barium	270		43	mg/kg dry
Beryllium	5.1		1.3	mg/kg dry
Cadmium	3.5		1.3	mg/kg dry
Calcium	34000		220	mg/kg dry
Chromium	290		2.2	mg/kg dry
Cobalt	45		8.7	mg/kg dry
Copper	610		4.3	mg/kg dry
Iron	73000		22	mg/kg dry
Lead	250		3.5	mg/kg dry
Magnesium	5900		220	mg/kg dry
Manganese	30000		11	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS014-2124-001

Sample ID: 1303109-37

Metals ICP

Nickel	180		8.7	mg/kg dry
Potassium	1500		220	mg/kg dry
Selenium	---	U	43	mg/kg dry
Sodium	610		430	mg/kg dry
Silver	3.4		2.2	mg/kg dry
Thallium	---	U	8.7	mg/kg dry
Vanadium	20		8.7	mg/kg dry
Zinc	1200		8.7	mg/kg dry
Tin	7.9		4.3	mg/kg dry

Mercury CVAA

Mercury	---	U	0.036	mg/kg dry
---------	-----	---	-------	-----------

Field ID: P001-SS015-0001-001

Sample ID: 1303109-38

Metals ICP

Aluminum	7900		45	mg/kg dry
Antimony	---	U	9.1	mg/kg dry
Arsenic	7.4		3.6	mg/kg dry
Barium	65		45	mg/kg dry
Beryllium	---	U	1.4	mg/kg dry
Cadmium	---	U	1.4	mg/kg dry
Calcium	7300		230	mg/kg dry
Chromium	23		2.3	mg/kg dry
Cobalt	---	U	9.1	mg/kg dry
Copper	88		4.5	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS015-0001-001

Sample ID: 1303109-38

Metals ICP

Iron	20000		23	mg/kg dry
Lead	66		3.6	mg/kg dry
Magnesium	3200		230	mg/kg dry
Manganese	500		2.3	mg/kg dry
Nickel	15		9.1	mg/kg dry
Potassium	690		230	mg/kg dry
Selenium	---	U	9.1	mg/kg dry
Sodium	---	U	450	mg/kg dry
Silver	---	U	2.3	mg/kg dry
Thallium	---	U	9.1	mg/kg dry
Vanadium	36		9.1	mg/kg dry
Zinc	230		9.1	mg/kg dry
Tin	---	U	4.5	mg/kg dry

Mercury CVAA

Mercury	0.094		0.033	mg/kg dry
---------	-------	--	-------	-----------

Field ID: P001-SS015-0106-001

Sample ID: 1303109-39

Metals ICP

Aluminum	7800		47	mg/kg dry
Antimony	---	U	9.4	mg/kg dry
Arsenic	5.9		3.8	mg/kg dry
Barium	62		47	mg/kg dry
Beryllium	---	U	1.4	mg/kg dry
Cadmium	---	U	1.4	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS015-0106-001

Sample ID: 1303109-39

Metals ICP

Calcium	13000		240	mg/kg dry
Chromium	23		2.4	mg/kg dry
Cobalt	---	U	9.4	mg/kg dry
Copper	82		4.7	mg/kg dry
Iron	16000		24	mg/kg dry
Lead	69		3.8	mg/kg dry
Magnesium	3800		240	mg/kg dry
Manganese	510		2.4	mg/kg dry
Nickel	14		9.4	mg/kg dry
Potassium	610		240	mg/kg dry
Selenium	---	U	9.4	mg/kg dry
Sodium	---	U	470	mg/kg dry
Silver	---	U	2.4	mg/kg dry
Thallium	---	U	9.4	mg/kg dry
Vanadium	28		9.4	mg/kg dry
Zinc	200		9.4	mg/kg dry
Tin	---	U	4.7	mg/kg dry

Mercury CVAA

Mercury	0.10		0.045	mg/kg dry
---------	------	--	-------	-----------

Field ID: P001-SS015-0612-001

Sample ID: 1303109-40

Metals ICP

Aluminum	8100		46	mg/kg dry
Antimony	---	U	9.1	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS015-0612-001

Sample ID: 1303109-40

Metals ICP

Arsenic	9.4		3.6	mg/kg dry
Barium	70		46	mg/kg dry
Beryllium	---	U	1.4	mg/kg dry
Cadmium	---	U	1.4	mg/kg dry
Calcium	11000		230	mg/kg dry
Chromium	24		2.3	mg/kg dry
Cobalt	---	U	9.1	mg/kg dry
Copper	74		4.6	mg/kg dry
Iron	17000		23	mg/kg dry
Lead	67		3.6	mg/kg dry
Magnesium	3000		230	mg/kg dry
Manganese	540		2.3	mg/kg dry
Nickel	14		9.1	mg/kg dry
Potassium	540		230	mg/kg dry
Selenium	---	U	9.1	mg/kg dry
Sodium	---	U	460	mg/kg dry
Silver	---	U	2.3	mg/kg dry
Thallium	---	U	9.1	mg/kg dry
Vanadium	30		9.1	mg/kg dry
Zinc	190		9.1	mg/kg dry
Tin	---	U	4.6	mg/kg dry

Mercury CVAA

Mercury	0.12		0.047	mg/kg dry
---------	------	--	-------	-----------



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS015-1218-001

Sample ID: 1303109-41

Metals ICP

Aluminum	8000		46	mg/kg dry
Antimony	---	U	9.2	mg/kg dry
Arsenic	11		3.7	mg/kg dry
Barium	69		46	mg/kg dry
Beryllium	---	U	1.4	mg/kg dry
Cadmium	---	U	1.4	mg/kg dry
Calcium	11000		230	mg/kg dry
Chromium	33		2.3	mg/kg dry
Cobalt	---	U	9.2	mg/kg dry
Copper	77		4.6	mg/kg dry
Iron	17000		23	mg/kg dry
Lead	65		3.7	mg/kg dry
Magnesium	3400		230	mg/kg dry
Manganese	550		2.3	mg/kg dry
Nickel	15		9.2	mg/kg dry
Potassium	630		230	mg/kg dry
Selenium	---	U	9.2	mg/kg dry
Sodium	---	U	460	mg/kg dry
Silver	---	U	2.3	mg/kg dry
Thallium	---	U	9.2	mg/kg dry
Vanadium	31		9.2	mg/kg dry
Zinc	180		9.2	mg/kg dry
Tin	---	U	4.6	mg/kg dry

Mercury CVAA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS015-1218-001

Sample ID: 1303109-41

Mercury CVAA

Mercury	0.12		0.047	mg/kg dry
---------	------	--	-------	-----------

Field ID: P001-SS015-1824-001

Sample ID: 1303109-42

Metals ICP

Aluminum	7900		44	mg/kg dry
Antimony	---	U	8.9	mg/kg dry
Arsenic	25		3.6	mg/kg dry
Barium	73		44	mg/kg dry
Beryllium	---	U	1.3	mg/kg dry
Cadmium	---	U	1.3	mg/kg dry
Calcium	11000		220	mg/kg dry
Chromium	39		2.2	mg/kg dry
Cobalt	---	U	8.9	mg/kg dry
Copper	83		4.4	mg/kg dry
Iron	17000		22	mg/kg dry
Lead	76		3.6	mg/kg dry
Magnesium	3500		220	mg/kg dry
Manganese	590		2.2	mg/kg dry
Nickel	36		8.9	mg/kg dry
Potassium	500		220	mg/kg dry
Selenium	---	U	8.9	mg/kg dry
Sodium	---	U	440	mg/kg dry
Silver	---	U	2.2	mg/kg dry
Thallium	---	U	8.9	mg/kg dry



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project: Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: P001-SS015-1824-001

Sample ID: 1303109-42

Metals ICP

Vanadium	31		8.9	mg/kg dry
Zinc	210		8.9	mg/kg dry
Tin	---	U	4.4	mg/kg dry

Mercury CVAA

Mercury	0.11		0.045	mg/kg dry
---------	------	--	-------	-----------

Field ID: RB-032613

Sample ID: 1303109-43

Metals ICP

Aluminum	---	U	100	ug/L
Antimony	---	U	20	ug/L
Arsenic	---	U	8.0	ug/L
Barium	---	U	100	ug/L
Beryllium	---	U	3.0	ug/L
Cadmium	---	U	3.0	ug/L
Calcium	---	U	500	ug/L
Chromium	---	U	5.0	ug/L
Cobalt	---	U	20	ug/L
Copper	---	U	10	ug/L
Iron	---	U	50	ug/L
Lead	---	U	8.0	ug/L
Magnesium	---	U	500	ug/L
Manganese	---	U	5.0	ug/L
Nickel	---	U	20	ug/L



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Project:Barth Smelting Co.-1303109

Project Number: 1303109

Analyte	Result	Qualifier	Reporting Limit	Units
---------	--------	-----------	-----------------	-------

Field ID: RB-032613

Sample ID: 1303109-43

Metals ICP

Potassium	---	U	500	ug/L
Selenium	---	U	20	ug/L
Silver	---	U	5.0	ug/L
Sodium	---	U	1000	ug/L
Thallium	---	U J	20	ug/L
Vanadium	---	U	20	ug/L
Zinc	---	U	20	ug/L
Tin	---	U	10	ug/L

Mercury CVAA

Mercury	---	U	0.20	ug/L
---------	-----	---	------	------

USEPA

Date Shipped: 3/27/2013
 Carrier Name: Hand-Deliver
 Airbill No: N/A

CHAIN OF CUSTODY RECORD

R02, Barth Smelting Corp./NJ
 Contact Name: Scott Snyder
 Contact Phone: 973-219-7394

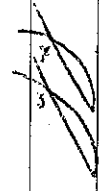
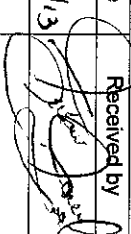
No: 2-032713-091826-0001

Cooler #: _____
 Lab: DESA
 Lab Phone: 732-321-6707

Lab #	Sample #	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	MS/MSD
	P001-SS001-0206-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	09:10	1	4-oz. glass jar	4 C	N
	P001-SS001-0612-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	09:12	1	4-oz. glass jar	4 C	N
	P001-SS001-1218-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	09:15	1	4-oz. glass jar	4 C	N
	P001-SS001-1824-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	09:20	2	4-oz. glass jar	4 C	Y
	P001-SS001-1824-002	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	09:20	1	4-oz. glass jar	4 C	N
	P001-SS002-0206-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	09:45	1	4-oz. glass jar	4 C	N
	P001-SS002-0612-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	09:47	1	4-oz. glass jar	4 C	N
	P001-SS002-1218-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	09:50	1	4-oz. glass jar	4 C	N
	P001-SS002-1824-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	09:52	1	4-oz. glass jar	4 C	N
	P001-SS003-0206-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	10:05	1	4-oz. glass jar	4 C	N
	P001-SS003-0612-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	10:07	1	4-oz. glass jar	4 C	N

Special Instructions: The following samples are designated for 250-micron sieving: P001-SS001-0206-001, P001-SS002-0206-001, P001-SS003-0206-001, P001-SS004-0206-001, P001-SS005-0206-001, P001-SS006-0206-001, P001-SS008-0206-001, P001-SS009-0206-001, P001-SS013-0206-001, P001-SS014-0206-001, P001-SS015-0001-001.

SAMPLES TRANSFERRED FROM
 CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
Lab Analysis		3/27/13		3/27/13	11:50						

Temp = 4.8°C and 10°C on 3/27/13

Lab Phone: 732-321-6707

Lab #	Sample #	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	MS/MSD
	P001-SS003-1218-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	10:10	1	4-oz. glass jar	4 C	N
	P001-SS003-1824-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	10:12	1	4-oz. glass jar	4 C	N
	P001-SS004-0206-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	10:25	1	4-oz. glass jar	4 C	N
	P001-SS004-0612-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	10:28	1	4-oz. glass jar	4 C	N
	P001-SS004-1218-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	10:35	1	4-oz. glass jar	4 C	N
	P001-SS004-1824-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	10:40	1	4-oz. glass jar	4 C	N
	P001-SS005-0206-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	11:00	1	4-oz. glass jar	4 C	N
	P001-SS005-0609-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	11:05	1	4-oz. glass jar	4 C	N
	P001-SS005-1318-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	11:08	1	4-oz. glass jar	4 C	N
	P001-SS005-1824-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	11:12	1	4-oz. glass jar	4 C	N
	P001-SS006-0206-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	11:30	1	4-oz. glass jar	4 C	N

SAMPLES TRANSFERRED FROM	CHAIN OF CUSTODY #

[illegible]

USEPA

DateShipped: 3/27/2013

CarrierName: Hand-Deliver

Airtelino: N/A

CHAIN OF CUSTODY RECORD

R02_Bath Smelting Corp./NJ

Contact Name: Scott Snyder

Contact Phone: 973-219-7394

No: 2-032713-091826-0001

Cooler #:

Lab: DESA

Lab Phone: 732-321-6707

Lab #	Sample #	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	MS/MSD
	P001-SS006-0612-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	11:35	1	4-oz. glass jar	4 C	N
	P001-SS006-1218-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	11:40	2	4-oz. glass jar	4 C	Y
	P001-SS006-1218-002	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	11:40	1	4-oz. glass jar	4 C	N
	P001-SS007-1218-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	12:10	1	4-oz. glass jar	4 C	N
	P001-SS007-1824-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	12:15	1	4-oz. glass jar	4 C	N
	P001-SS008-0206-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	13:00	1	4-oz. glass jar	4 C	N
	P001-SS008-2224-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	13:05	1	4-oz. glass jar	4 C	N
	P001-SS009-0206-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	12:40	1	4-oz. glass jar	4 C	N
	P001-SS010-1824-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	13:20	1	4-oz. glass jar	4 C	N
	P001-SS013-0206-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	13:55	1	4-oz. glass jar	4 C	N
	P001-SS013-0612-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	14:00	1	4-oz. glass jar	4 C	N

Special Instructions: The following samples are designated for 250-micron sieving: P001-SS001-0206-001, P001-SS002-0206-001, P001-SS003-0206-001, P001-SS004-0206-001, P001-SS005-0206-001, P001-SS006-0206-001, P001-SS008-0206-001, P001-SS009-0206-001, P001-SS013-0206-001, P001-SS014-0206-001, P001-SS015-0001-001.

SAMPLES TRANSFERRED FROM[illegible]

Lab Phone: 732-321-6707

Lab #	Sample #	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	MS/MSD
	P001-SS013-1218-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	14:05	1	4-oz. glass jar	4 C	N
	P001-SS013-1824-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	14:10	1	4-oz. glass jar	4 C	N
	P001-SS014-0206-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	13:35	1	4-oz. glass jar	4 C	N
	P001-SS014-2124-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	13:40	1	4-oz. glass jar	4 C	N
	P001-SS015-0001-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	14:42	1	4-oz. glass jar	4 C	N
	P001-SS015-0106-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	14:45	1	4-oz. glass jar	4 C	N
	P001-SS015-0612-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	14:47	1	4-oz. glass jar	4 C	N
	P001-SS015-1218-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	14:53	1	4-oz. glass jar	4 C	N
	P001-SS015-1824-001	TAL Metals (incl. Hg and Sn)	Soil	3/26/2013	14:55	1	4-oz. glass jar	4 C	N
	RB-032613	TAL Metals (incl. Hg and Sn)	DI Water	3/26/2013	09:00	1	1 L poly	HNO3 pH<2	N

SAMPLES TRANSFERRED FROM	CHAIN OF CUSTODY #

[illegible]