ArcelorMittal USA

May 20th, 2019

Mr. Brandon Pursel and Ms. Melissa Blankenship
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Mail Code LU-16J
Chicago, Illinois 60604-3507

Subject: **Verification Sampling**
ArcelorMittal Indiana Harbor Long Carbon
East Chicago, IN

Mr. Pursel and Ms. Blankenship:

ArcelorMittal USA LLC is pleased to submit the results of the verification sampling activities for the Indiana Harbor Long Carbon (IHLC) property located in East Chicago, Indiana. This document has been prepared to address comments from the United States Environmental Protection Agency (U.S. EPA) and their request for verification sampling to address data gaps as part of the RCRA FIRST toolbox. If you have questions please contact me at 300-659-9124.

Regards,

Cary Mathias

Enclosures
c: David Hagen, Peggy Stonier, Haley & Aldrich, Inc.

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17 May 2019
File No. 129719

ArcelorMittal USA LLC
Environmental Affairs and Real Estate
4020 Kinross Lakes Parkway
Richfield, Ohio 44286

Attention: Mr. Cary Mathias
Regional Waste Manager

Subject: Verification Sampling
Indiana Harbor Long Carbon
East Chicago, Indiana
ArcelorMittal USA LLC

Dear Mr. Mathias:

The enclosed Data Summary Report (DSR) details the findings of verification sampling activities completed at the ArcelorMittal USA LLC (ArcelorMittal) - Indiana Harbor Long Carbon (IHLC) property located in East Chicago, Indiana. Verification sampling was conducted to address data gaps to the RCRA Facility Investigation (RFI) Data Sufficiency Evaluation (Evaluation) that were identified by the United States Environmental Protection Agency (U.S. EPA) in a 19 July 2018 letter to ArcelorMittal. ArcelorMittal responded to the U.S. EPA's comments on 11 January 2019 and agreed to complete verification sampling to address these data gaps as next step efforts to achieve RCRA Corrective Action (CA) closure for the IHLC property utilizing the U.S. EPA RCRA Facilities Investigation Remedy Selection Track (FIRST) – A Toolbox for Corrective Action (May 2016).

The verification sampling activities were conducted to address data gaps identified by U.S. EPA, respond to EPA's request for more recent data, and demonstrate concentrations of constituents of concern (COC) in groundwater, including specific volatile organic compounds (VOCs) and metals, have remained stable or have decreased and to collect surface and subsurface soil samples to facilitate the completion of a property-specific Conceptual Site Model (CSM) and Human Health Risk Assessment (HHRA).

In March 2019, soil and groundwater sampling activities were completed at the IHLC property in accordance with the applicable Standard Operating Procedures (SOPs)/Work Test Procedures (WTPs) included in the U.S. EPA-approved Revised RCRA Facility Investigation Work Plan – Quality Assurance Project Plan (QAPP; Earth Tech, Inc., February 2003). Based on the groundwater analytical results, concentrations of metals and VOCs in groundwater, including but not limited to naphthalene, trichloroethylene, and vinyl chloride, do not exceed site-specific screening criteria and have decreased or have remained consistent when compared to historical groundwater data. Soil analytical results

indicate COCs, with the exception of iron, were not detected in soil at concentrations greater than screening criteria.

In summary, based on the results of the verification groundwater and soil sampling, the data gaps in the Evaluation identified by the U.S. EPA have been addressed. Accordingly, no additional sampling at the IHLC property is necessary to satisfy project data quality objectives and the data are sufficient to proceed to the next step in the RCRA FIRST process, including assessing potential risk and exposure pathways with the completion of the property specific CSM and HHRA.

Thank you for the opportunity to perform these services for you. Please do not hesitate to contact us if you have any questions or comments.

Sincerely,
HALEY & ALDRICH, INC.

David J. Hagen
Principal Consultant

Peggy J. Stonier
Assistant Project Manager

c: ArcelorMittal; John Hill

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REPORT ON

DATA SUMMARY REPORT
ARCELORMITTAL - INDIANA HARBOR LONG CARBON
EAST CHICAGO, INDIANA

by
Haley & Aldrich, Inc.
Cleveland, Ohio

for
ArcelorMittal USA LLC
Richfield, Ohio

File No. 129719
May 2019

HALEY & ALDRICH, INC.
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14 May 2019
File No. 129719

ArcelorMittal USA LLC
Environmental Affairs and Real Estate
4020 Kinross Lakes Parkway
Richfield, Ohio 44286-9000

Attention: Mr. Cary Mathias
Regional Waste Manager

Subject: Verification Sampling and Analysis Plan
Indiana Harbor Long Carbon
East Chicago, Indiana

Dear Mr. Mathias:

Haley & Aldrich, Inc. (Haley & Aldrich) has prepared this Data Summary Report (DSR) to present the findings of the verification sampling activities completed at the ArcelorMittal USA LLC (ArcelorMittal) - Indiana Harbor Long Carbon (IHLC) property located in East Chicago, Indiana. This work has been conducted as part of the effort to separate the IHLC property from the ArcelorMittal - Indiana Harbor East (IHE) facility RCRA Corrective Action (CA) and to seek accelerated RCRA CA closure utilizing United States Environmental Protection Agency's (U.S. EPA) RCRA Facilities Investigation Remedy Selection Track (FIRST) – A Toolbox for Corrective Action (May 2016).

On 30 May 2018, ArcelorMittal submitted a RCRA Facility Investigation (RFI) Data Sufficiency Evaluation (Evaluation), outlined in RCRA First Tool 4, to the U.S. EPA to demonstrate project Data Quality Objectives (DQOs) have been satisfied for the IHLC property, and that the data are sufficient to proceed to the next step in the RCRA FIRST process. The U.S. EPA responded with comments to the Evaluation on 19 July 2018 (July 2018 Comment Letter). ArcelorMittal responded to the U.S. EPA's comments on 11 January 2019 and agreed to complete verification sampling as next step efforts to achieve closure.

The goals of the verification sampling activities were to:

- Collect groundwater samples to demonstrate that constituents of concern (COCs) in groundwater are stable or decreasing; and
- Collect surface and subsurface soil samples to facilitate the completion of the property-specific Conceptual Site Model (CSM) and Human Health Risk Assessment (HHRA) for the IHLC property.

The field activities discussed below were completed in accordance with the procedures presented in the Verification Sampling and Analysis Plan (VSAP) prepared by Haley & Aldrich and dated January 2019. The results of the verification sampling activities are summarized below.

Verification Sampling Activities

INVESTIGATION PROCEDURES

Soil and groundwater sampling were completed in accordance with the applicable Standard Operating Procedures (SOPs)/Work Test Procedures (WTPs) included in the U.S. EPA-approved Revised RCRA Facility Investigation Work Plan – Quality Assurance Project Plan (QAPjP; Earth Tech, Inc., February 2003).

Soil Sampling

Soil borings were advanced and continuously sampled utilizing hollow-stem auger drilling techniques at ten locations in unpaved areas of the IHLC property (Figure 1). The borings were advanced to approximately 10 feet below surface grade and split-spoon samples were collected with a standard 1.4-inch inside diameter (ID), 2-inch outside diameter (OD) split-spoon sampler in accordance with procedures outlined in WTP 4.3. Soils were sampled and logged, and each sample was field screened for the presence of total organic vapors (TOVs) using an appropriately calibrated photoionization detector (PID) in accordance with WTP 2.6. Boring logs are provided in Attachment 1. Drilling tools, sampling tools, and equipment were decontaminated according to the procedures outlined the QAPjP.

Two soil samples were collected from each soil boring and were submitted to the project laboratory for analysis. One soil sample from each soil boring was collected from the surface (0 to 2 feet), and a second soil sample was selected based on field observations and headspace screening or was collected from the two foot interval immediately above groundwater.

Soil samples, along with field duplicates and matrix spike/matrix spike duplicates, collected for quality assurance/quality control (QA/QC), were packaged and shipped under proper chain-of-custody procedures to TestAmerica Laboratories, Inc. (TestAmerica) in North Canton, Ohio. Samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total metals, sulfide, and cyanide in accordance with Project Target Parameters, Appendix IX Analytes. Laboratory analytical reports are provided in Attachment 2. Results of the sampling are discussed below.

Borings were abandoned upon completion of drilling and sampling, in accordance with WTP 3.1.

Groundwater Sampling

As discussed in the VSAP, ArcelorMittal agreed to complete verification groundwater sampling at monitoring well locations on the IHLC property (Figure 1), in response to U.S. EPA comments on the Evaluation. Additional groundwater data were collected to confirm that concentrations of COCs have remained stable or have decreased.

A “first water” sample, IMW-02-00001R, was collected in the southern-most portion the IHLC property, north of the bridge, and “first water” sample, IFW-02-00022R, was collected in the vicinity of former monitoring well IFW-02-00022 (Figure 1).

Soil borings for “first water” sample locations IMW-02-00001R and IFW-02-00022R were installed with a drill rig equipped with hollow-stem augers in accordance with procedures outlined in Section 4.1.1.1 of the QAPjP and the with WTPs 3.1 and 4.1. To obtain a "first-water" sample, a soil boring was advanced to approximately 10 feet below surface grade using 4.25-inch ID hollow stem augers. A prepacked well screen and riser pipe were lowered inside the augers once the water level inside the augers had visually stabilized.

Water quality information was monitored with a flow-through cell and display handset. Groundwater was purged until a minimum of 5 gallons had been removed, and the turbidity of the purge water had decreased to less than 10 Nephelometric Turbidity Units (NTU) or had stabilized. A "first water" sample was collected immediately upon removal of the purge water directly from dedicated, discharge tubing, and placed into appropriate containers. No soil samples were collected from the “first water” boring for analysis. Following sample collection, the borings were abandoned in accordance with WTP 3.1. Drilling tools and equipment were decontaminated according to the procedures outlined the QAPjP.

Existing monitoring well IMW-02-00004S was redeveloped and field parameters were recorded. Groundwater was purged using low-flow sampling techniques until water quality criteria had stabilized and then a groundwater sample was collected.

Groundwater samples, including appropriate QA/QC samples, were submitted for analysis. Samples were packaged and shipped under proper chain-of-custody procedures to TestAmerica for analysis, as follows:

- IFW-02-00022R: VOCs
- IMW-02-00001R: total metals
- IMW-02-00004S: VOCs

Management of Investigative Derived Waste

Investigation derived waste was managed in accordance with WTP 2.7.

DATA REVIEW AND ANALYSIS

Soil

As discussed above, 22 soil samples, including two field duplicates, were collected as part of the verification sampling effort. Samples were analyzed for VOCs, SVOCs, total metals, sulfide, and cyanide. Soil analytical results were compared to the following Indiana Department of Environmental Management (IDEM) Commercial/Industrial and Excavation Direct Contact Screening Levels.

No VOCs, SVOCs, metals, or sulfide were detected at concentrations greater than IDEM Direct Contact Screening Levels except for iron which exceeded both Commercial/Industrial and Excavation Direct

Contact Screening Levels in two surface soil samples collected from soil borings SB-04 and SB-08, as summarized in Table 1.

Groundwater

Three groundwater samples were collected, including one duplicate groundwater sample. A second duplicate sample was collected, however, because of the high turbidity, the data would not meet the quality objectives outlined in QAPjP and WTP 4.1 and therefore was not included in the data set. Groundwater analytical results were compared to site-specific RFI Tier 1A and Tier IB screening criteria, as summarized in Table 2. Groundwater data from associated historical samples are also presented on Table 2 for comparison to recent data. In general, findings of this comparison indicate the following:

Sampling Location	Validated Analyte(s)	Increased, Decreased or Remained Consistent	Exceed Screening Criteria?
IFW-02-00022R	VOCs	Decreased	No
IMW-02-00001R	Metals	Remained consistent	No
IMW-02-00004S	VOCs	Decreased	No

CONCLUSIONS

As discussed above, the goals of the verification sampling activities were to collect groundwater data to demonstrate that COCs are stable or decreasing and to collect soil data to support the property-specific CSM and HHRA. Based on the data collected as part of the verification sampling activities, recent groundwater data suggests that concentrations of COCs have decreased or have remained consistent when compared associated historical groundwater data. Detected concentrations of COCs in groundwater did not exceed Tier 1A and/or Tier 1 B screening criteria, and COC detections in surface and subsurface soil did not exceed IDEM screening criteria except for iron. Potential risk and exposure pathways will be assessed with the completion of the property-specific CSM and HHRA utilizing the soil data collected for the IHLC property.

Sincerely yours,
HALEY & ALDRICH, INC.

Shawn S. Fiore

Peggy Stonier

Shawn S. Fiore, P.G.
Senior Vice President

Peggy Stonier
Assistant Project Manger

Enclosures:
Tables, Figure, Laboratory Report

c: John Hill; ArcelorMittal USA LLC

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References

1. Earth Tech, RCRA Facility Investigation Workplan – Quality Assurance Project Plant, February 2003.
2. Haley & Aldrich, Inc., RCRA Facility Investigation Data Sufficiency Evaluation, May 2018.
3. United States Environmental Protection Agency, Comments on Data Sufficiency Evaluation – Indiana Harbor Long Carbon, July 2018.
4. ArcelorMittal USA LLC, Response to Comments; Data Sufficiency Evaluation, 11 January 2019.
5. Haley & Aldrich, Inc., Verification Sampling and Analysis Plan, January 2019.

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TABLES

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
ARCELORMITTAL - INDIANA HARBOR LONG CARBON
EAST CHICAGO, INDIANA

Location	IDEM Com/Ind	IDEM Excavation	SB-01	SB-01	SB-02	SB-02	SB-03	SB-03	SB-04	SB-04	SB-04	SB-05	SB-05	SB-05	SB-06	SB-06	SB-07	SB-07	SB-08	SB-08	SB-09
Sample Date			03/05/2019	03/05/2019	03/05/2019	03/05/2019	03/05/2019	03/05/2019	03/05/2019	03/05/2019	03/05/2019	03/06/2019	03/06/2019	03/06/2019	03/06/2019	03/06/2019	03/06/2019	03/06/2019	03/07/2019	03/07/2019	03/06/2019
Sample Type	Direct	Direct	N	N	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	N
Sample Depth (bgs)	Contact	Contact	0 - 2 (ft)	5 - 7 (ft)	0 - 2 (ft)	6 - 8 (ft)	0 - 2 (ft)	6 - 8 (ft)	0 - 2 (ft)	0 - 2 (ft)	6 - 8 (ft)	0 - 2 (ft)	6 - 8 (ft)	6 - 8 (ft)	0 - 2 (ft)	2 - 4 (ft)	0 - 2 (ft)	4 - 6 (ft)	0 - 2 (ft)	2 - 4 (ft)	0 - 2 (ft)
Inorganic Compounds (mg/kg)																					
Antimony	470	790	0.71 J	ND (1)	ND (0.92)	ND (1.1)	ND (0.9)	ND (1.1)	2.6	ND (17)	ND (0.84)	ND (1.1) F2F1	0.59 J	0.46 J	1.5 J	ND (0.86)	ND (2)	ND (1.1)	2.2 J	0.79 J	0.39 J
Arsenic	30	920	3.8 J	4.3	ND (4.6)	2.1	ND (4.5)	2.2	ND (15)	ND (17)	3.2	3.7 J	3.4	3.5	ND (22)	1.4	5.6	1.9	ND (17)	5.9 J	0.7 J
Barium	100000	100000	100	17 J	280	3.3 J	300	5.2 J	150	180	9.4 J	140 F1	11 J	11 J	170	2.6 J	210	3.4 J	110	31	190
Beryllium	2300	3800	0.41 J	ND (0.51)	6.2	ND (0.55)	6.6	ND (0.54)	0.55	0.4 J	0.072 J	2.4 F1	0.097 J	0.081 J	2.5	0.047 J	4	ND (0.56)	0.88	0.34 J	4.4
Cadmium	980	1900	0.24	0.089 J	0.072 J	ND (0.22)	0.11 J	0.11 J	0.72	ND (3.3)	0.081 J	0.59	0.26	0.27	0.56	0.059 J	1.5	0.057 J	1.5	0.5	0.61
Chromium	-	-	210	7.8	22	6	100	4.7	800	1100	23 F1	120	7.4	8	920	4.1	120	4.1	640	320	62
Cobalt	350	590	2.2	1.8	0.67 J	1.4	0.88 J	1.9	2.3	1.9	3.5	1.2	1.4	1.5	1.2	1.4	3.7	1.1	6.1	3	3.5
Copper	47000	79000	16	6.1	6.5 J	1.8 J	24	3.7	62	45	9	20	7.3	6.6	31	1.3 J	100	2 J	140	58	70
Cyanide	150	560	0.43 J	ND (0.56)	2.3	ND (0.58)	1.9	ND (0.53)	1.6	1.2	ND (0.59)	0.6	ND (0.5)	ND (0.55)	0.55 J	ND (0.6)	1.2	ND (0.6)	0.57	0.22 J	0.67
Iron	100000	100000	44000	5400	6100	4100	11000	4600	66000	210000 [AB]	9300 F2	26000	7000	7200	88000	3500	67000	4200	110000 [AB]	50000	43000
Lead	800	1000	29	8.4	6	2.1	9.8	4	94	33	7.1	37 F1	16	17	40	2.5	110	2.3	170	32	56
Magnesium	-	-	22000	15000	37000	12000	36000	19000	28000	26000	11000 F1F2	26000 F2	8200	9200	30000	16000	25000	9800	21000	7000	23000
Manganese	26000	46000	4100 B	160 B	3300 B	160 B	3700 B	180 B	15000 B	16000 B	360 B	4200	220 B	300 B	5100 B	140 B	4200 B	120 B	11000 B	6100	540 B
Mercury	3.1	3.1	ND (0.12)	ND (0.12)	ND (0.11)	ND (0.13)	ND (0.11)	ND (0.12)	0.08 J	0.17	ND (0.12)	0.049 J	ND (0.11)	ND (0.13)	0.061 J	ND (0.13)	0.13	ND (0.13)	0.08 J	0.038 J	0.12
Nickel	22000	38000	9.3	3.7 J	3.6 J	2.6 J	10	3.7 J	22	14 J	6.2	9	4 J	3.9 J	12	2.3 J	44	2.6 J	72	34	29
Selenium	5800	9800	ND (7.9)	ND (1.5)	3.7 J	ND (1.6)	ND (6.7)	ND (1.6)	ND (23)	ND (25)	0.78 J	ND (8)	0.5 J	ND (1.5)	ND (32)	ND (1.3)	4.6 J	ND (1.7)	ND (26)	ND (13)	ND (1.6)
Silver	5800	9800	0.91 B	0.26 JB	0.81 B	0.13 JB	0.76 B	0.21 JB	2.9 B	2.6 B	0.2 JB	ND (0.53)	0.26 JB	0.23 JB	2.9 B	0.2 JB	1.1 B	0.35 JB	2.2 B	ND (0.44)	0.84 B
Sodium	-	-	220 J	100 J	1300	100 J	1300	100 J	170 J	190 J	77 J	810	89 J	99 J	430 J	92 J	550	82 J	260 J	73 J	760
Thallium	12	20	ND (5.3)	ND (1)	ND (4.6)	ND (1.1)	ND (4.5)	ND (1.1)	ND (15)	ND (17)	ND (0.84)	6.7	ND (1)	ND (0.99)	ND (22)	ND (0.86)	ND (4.9)	ND (1.1)	ND (17)	4.8 J	ND (1)
Tin	100000	100000	5 J	ND (10)	ND (9.2)	ND (11)	4.4 J	ND (11)	7.6	6 J	3 J	5.2 J	3.8 J	3.7 J	15	ND (8.6)	11	ND (11)	15	10	9.6 J
Vanadium	5800	9900	110	9	17	11	25	8.7	230	540	13	46 F2F1	9.2	8.7	240	8.6	48	9.5	200	42	23
Zinc	100000	100000	88	26	23	12	140	19	260	90	24	150 F1	40	42	120	12	340	11	330	100	170
Other (mg/kg)																					
Sulfide	-	-	63	49	1500	34 J	1500	ND (35)	94	82	83	430	ND (32)	19 J	180	ND (36)	230	21 J	90	19 J	330
Semi-Volatile Organic Compounds (ug/kg)																					
2,2'-oxybis(1-Chloropropane)	1000000	1000000	ND (540)	ND (110)	ND (110)	ND (110)	ND (110)	ND (120)	ND (110)	ND (530)	ND (110)	ND (210)	ND (110)	ND (110)	ND (430)	ND (120)	ND (210)	ND (120)	ND (280)	ND (110)	ND (210)
2,4,5-Trichlorophenol	82000000	100000000	ND (810)	ND (160)	ND (160)	ND (170)	ND (170)	ND (170)	ND (160)	ND (800) F1	ND (160)	ND (320)	ND (160)	ND (160)	ND (650)	ND (180)	ND (320)	ND (180)	ND (420)	ND (160)	ND (320)
2,4,6-Trichlorophenol	820000	1800000	ND (810)	ND (160)	ND (160)	ND (170)	ND (170)	ND (170)	ND (160)	ND (800) F1	ND (160)	ND (320)	ND (160)	ND (160)	ND (650)	ND (180)	ND (320)	ND (180)	ND (420)	ND (160)	ND (320)
2,4-Dichlorophenol	2500000	5200000	ND (810)	ND (160)	ND (160)	ND (170)	ND (170)	ND (170)	ND (160)	ND (800)	ND (160)	ND (320)	ND (160)	ND (160)	ND (650)	ND (180)	ND (320)	ND (180)	ND (420)	ND (160)	ND (320)
2,4-Dimethylphenol	16000000	34000000	ND (810)	ND (160)	ND (160)	ND (170)	ND (170)	ND (170)	ND (160)	ND (800)	ND (160)	ND (320)	ND (160)	ND (160)	ND (650)	ND (180)	ND (320)	ND (180)	ND (420)	ND (160)	ND (320)
2,4-Dinitrophenol	1600000	3400000	ND (1800)	ND (360)	ND (350)	ND (380)	ND (370)	ND (380)	ND (360)	ND (1800) F1	ND (360)	ND (700) F1	ND (350)	ND (360)	ND (1400)	ND (390)	ND (710)	ND (390)	ND (930)	ND (360)	ND (700)
2,4-Dinitrotoluene	74000	3400000	ND (1100)	ND (220)	ND (220)	ND (230)	ND (220)	ND (230)	ND (220)	ND (1100)	ND (220)	ND (420)	ND (210)	ND (220)	ND (870)	ND (240)	ND (430)	ND (240)	ND (570)	ND (220)	ND (420)
2,6-Dinitrotoluene	15000	520000	ND (1100)	ND (220)	ND (220)	ND (230)	ND (220)	ND (230)	ND (220)	ND (1100)	ND (220)	ND (420)	ND (210)	ND (220)	ND (870)	ND (240)	ND (430)	ND (240)	ND (570)	ND (220)	ND (420)
2-Chloronaphthalene	60000000	100000000	ND (270)	ND (54)	ND (54)	ND (57)	ND (56)	ND (58)	ND (54)	ND (270)	ND (54)	ND (110)	ND (53)	ND (55)	ND (220)	ND (59)	ND (110)	ND (59)	ND (140)	ND (55)	ND (110)
2-Chlorophenol	5800000	9800000	ND (270)	ND (54)	ND (54)	ND (57)	ND (56)	ND (58)	ND (54)	ND (270)	ND (54)	ND (110)	ND (53)	ND (55)	ND (220)	ND (59)	ND (110)	ND (59)	ND (140)	ND (55)	ND (110)
2-Methylnaphthalene	3000000	6800000	52 J	24	28	ND (17)	8.5 J	ND (17)	100	110	22	150	10 J	31	64 J	ND (18)	44	ND (18)	64	46	79
2-Methylphenol (o-Cresol)	41000000	87000000	ND (1100)	ND (220)	ND (220)	ND (230)	ND (220)	ND (230)	ND (220)	ND (1100)	ND (220)	ND (420)	ND (210)	ND (220)	ND (870)	ND (240)	ND (430)	ND (240)	ND (570)	ND (220)	ND (420)
2-Nitroaniline	8000000	18000000	ND (1100)	ND (220)	ND (220)	ND (230)	ND (220)	ND (230)	ND (220)	ND (1100)	ND (220)	ND (420)	ND (210)	ND (220)	ND (870)	ND (240)	ND (430)	ND (240)	ND (570)	ND (220)	ND (420)
2-Nitrophenol	-	-	ND (270)	ND (54)	ND (54)	ND (57)	ND (56)	ND (58)	ND (54)	ND (270)	ND (54)	ND (110)	ND (53)	ND (55)	ND (220)	ND (59)	ND (110)	ND (59)	ND (140)	ND (55)	ND (110)
3&4-Methylphenol	-	-	ND (2200)	ND (440)	ND (430)	ND (460)	ND (440)	ND (460)	ND (430)	ND (2100)	ND (430)	ND (850)	ND (430)	ND (440)	ND (1700)	ND (470)	ND (860)	ND (480)	ND (1100)	ND (440)	ND (850)
3,3'-Dichlorobenzidine	51000	2700000	ND (540)	ND (110)	ND (110)	ND (110)	ND (110)	ND (120)	ND (110)	ND (530)	ND (110)	ND (210)	ND (110)	ND (110)	ND (430)	ND (120)	ND (210)	ND (120)	ND (280)	ND (110)	ND (210)
3-Nitroaniline	-	-	ND (1100)	ND (220)	ND (220)	ND (230)	ND (220)	ND (230)	ND (220)	ND (1100)	ND (220)	ND (420)	ND (210)	ND (220)	ND (870)	ND (240)	ND (430)	ND (240)	ND (570)	ND (220)	ND (420)
4,6-Dinitro-2-methylphenol	66000	140000	ND (1800)	ND (360)	ND (350)	ND (380)	ND (370)	ND (380)	ND (360)	ND (1800)	ND (360)	ND (700)	ND (350)	ND (360)	ND (1400)	ND (390)	ND (710)	ND (390)	ND (930)	ND (360)	ND (700)
4-Bromophenyl phenyl ether	-	-	ND (270)	ND (54)	ND (54)	ND (57)	ND (56)	ND (58)	ND (54)	ND (270)	ND (54)	ND (110)	ND (53)	ND (55)	ND (220)	ND (59)	ND (110)	ND (59)	ND (140)	ND (55)	ND (110)
4-Chloro-3-methylphenol	82000000	100000000	ND (810)	ND (160)	ND (160)	ND (170)	ND (170)	ND (170)	ND (160)	ND (800)	ND (160)	ND (320)	ND (160)	ND (160)	ND (650)	ND (180)	ND (320)	ND (180)	ND (420)	ND (160)	ND (320)
4-Chloroaniline	110000	6000000	ND (810)	ND (160)	ND (160)	ND (170)	ND (170)	ND (170)	ND (160)	ND (800)	ND (160)	ND (320)	ND (160)	ND (160)	ND (650)	ND (180)	ND (320)	ND (180)	ND (420)	ND (160)	ND (320)
4-Chlorophenyl phenyl ether	-	-	ND (270)	ND (54)	ND (54)	ND (57)	ND (56)	ND (58)	ND (54)	ND (270)	ND (54)	ND (110)	ND (53)	ND (55)	ND (220)	ND (59)	ND (110)	ND (59)	ND (140)	ND (55)	ND (110)
4-Nitroaniline	1100000	7000000	ND (1100)	ND (220)	ND (220)	ND (230)	ND (220)	ND (230)	ND (220)	ND (1100)	ND (220)	ND (420)	ND (210)	ND (220)	ND (870)	ND (240)	ND (430)	ND (240)	ND (570)	ND (220)	ND (420)
4-Nitrophenol	-	-	ND (1800)	ND (360)	ND (350)	ND (380)	ND (370)	ND (380)	ND (360)	ND (1800) F1	ND (360)	ND (700)	ND (350)	ND (360)	ND (1400)	ND (390)	ND (710)	ND (390)	ND (930)	ND (360)	ND (700)
Acenaphthene	45000000	100000000	64 J	ND (16)	ND (16)	ND (17)	28	ND (17)	20	28 J	31	87	ND (16)	ND (16)	95	ND (18)	50	ND (18)	13 J	83	53
Acenaphthylene	-	-	ND (81)	ND (16)	4.5 J	ND (17)	8.7 J	ND (17)	14 J	ND (80)	ND (16)	39	ND (16)	ND (16)	97	ND (18)	220	ND (18)	17 J	ND (16)	200
Acetophenone	2500000	2500000	ND (540)	ND (110)	ND (110)	ND (110)	ND (110)	ND (120)	22 J	ND (530)	ND (110)	ND (210)	ND (110)	ND (110)	ND (430)	ND (120)	ND (210)	ND (120)	54 J	16 J	ND (210)
Anthracene	100000000	100000000	130	49	14 J	ND (17)	180	ND (17)	65	86	74	230	4.8 J	8.5 J	360	ND (18)	270	4.6 J	49	210	290

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
ARCELORMITTAL - INDIANA HARBOR LONG CARBON
EAST CHICAGO, INDIANA

Location	IDEM	IDEM	SB-01	SB-01	SB-02	SB-02	SB-03	SB-03	SB-04	SB-04	SB-04	SB-05	SB-05	SB-05	SB-06	SB-06	SB-07	SB-07	SB-08	SB-08	SB-09
Sample Date	Com/Ind	Excavation	03/05/2019	03/05/2019	03/05/2019	03/05/2019	03/05/2019	03/05/2019	03/05/2019	03/05/2019	03/05/2019	03/06/2019	03/06/2019	03/06/2019	03/06/2019	03/06/2019	03/06/2019	03/06/2019	03/07/2019	03/07/2019	03/06/2019
Sample Type	Direct	Direct	N	N	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	N
Sample Depth (bgs)	Contact	Contact	0 - 2 (ft)	5 - 7 (ft)	0 - 2 (ft)	6 - 8 (ft)	0 - 2 (ft)	6 - 8 (ft)	0 - 2 (ft)	0 - 2 (ft)	6 - 8 (ft)	0 - 2 (ft)	6 - 8 (ft)	6 - 8 (ft)	0 - 2 (ft)	2 - 4 (ft)	0 - 2 (ft)	4 - 6 (ft)	0 - 2 (ft)	2 - 4 (ft)	0 - 2 (ft)
Atrazine	100000	5200000	ND (1100)	ND (220)	ND (220)	ND (230)	ND (220)	ND (230)	ND (220)	ND (1100)	ND (220)	ND (420)	ND (210)	ND (220)	ND (870)	ND (240)	ND (430)	ND (240)	ND (570)	ND (220)	ND (420)
Benzaldehyde	1200000	1200000	ND (540)	ND (110)	ND (110)	ND (110)	ND (110)	ND (120)	ND (110)	ND (530)	ND (110)	ND (210)	ND (110)	ND (110)	ND (430)	ND (120)	ND (210)	ND (120)	**69 J**	ND (110)	ND (210)
Benzo(a)anthracene	210000	12000000	**220**	ND (16)	**62**	**14 J**	**280**	ND (17)	**250**	**280**	**200**	**740**	**29**	**50**	**1100**	**13 J**	**830**	**16 J**	**160**	**440**	**770**
Benzo(a)pyrene	21000	500000	**250**	**97**	**58**	**20**	**190**	ND (17)	**210**	**220**	**190**	**710**	**37**	**58**	**700**	**15 J**	**1400**	**19**	**200**	**470**	**820**
Benzo(b)fluoranthene	210000	12000000	**250**	**58**	**120**	**22**	**380**	ND (17)	**410**	**430**	**230**	**1100**	**60**	**100**	**1500**	**15 J**	**1900**	**29**	**340**	**690**	**1400**
Benzo(g,h,i)perylene	-	-	**360**	**450**	**67**	**14 J**	**97**	ND (17)	**200**	**240**	**150**	**640**	**37**	**67**	**600**	**12 J**	**1400**	**17 J**	**170**	**400**	**820**
Benzo(k)fluoranthene	2100000	100000000	ND (81)	ND (16)	**29**	ND (17)	**150**	ND (17)	**130**	**130**	**120**	**380**	**20**	**26**	**390**	ND (18)	**680**	**9.9 J**	**89**	**260**	**450**
Biphenyl	200000	1100000	ND (270)	ND (54)	ND (54)	ND (57)	ND (56)	ND (58)	**27 J**	ND (270)	ND (54)	ND (110)	ND (53)	ND (55)	ND (220)	ND (59)	ND (110)	ND (59)	ND (140)	ND (55)	ND (110)
bis(2-Chloroethoxy)methane	2500000	5200000	ND (540)	ND (110)	ND (110)	ND (110)	ND (110)	ND (120)	ND (110)	ND (530)	ND (110)	ND (210)	ND (110)	ND (110)	ND (430)	ND (120)	ND (210)	ND (120)	ND (280)	ND (110)	ND (210)
bis(2-Chloroethyl)ether	10000	810000	ND (540)	ND (110)	ND (110)	ND (110)	ND (110)	ND (120)	ND (110)	ND (530)	ND (110)	ND (210)	ND (110)	ND (110)	ND (430)	ND (120)	ND (210)	ND (120)	ND (280)	ND (110)	ND (210)
bis(2-Ethylhexyl)phthalate	1600000	34000000	ND (380)	ND (76)	**56 J**	ND (80)	**140**	ND (81)	**400**	ND (370) F1	**100 F1**	ND (150)	ND (75)	ND (77)	**330**	ND (83)	**170**	ND (83)	ND (200)	ND (76)	**170**
Butyl benzylphthalate	12000000	100000000	ND (380)	ND (76)	ND (75)	ND (80)	ND (78)	ND (81)	ND (76)	ND (370)	ND (75)	ND (150)	ND (75)	ND (77)	ND (300)	ND (83)	ND (150)	ND (83)	ND (200)	ND (76)	ND (150)
Caprolactam	100000000	100000000	ND (1800)	ND (360)	ND (350)	ND (380)	ND (370)	ND (380)	ND (360)	ND (1800)	ND (360)	ND (700)	ND (350)	ND (360)	ND (1400)	ND (390)	ND (710)	ND (390)	ND (930)	ND (360)	ND (700)
Carbazole	-	-	ND (270)	ND (54)	ND (54)	ND (57)	**92**	ND (58)	**35 J**	ND (270)	**39 J**	**120**	ND (53)	ND (55)	ND (220)	ND (59)	**110**	ND (59)	ND (140)	**95**	**92 J**
Chrysene	21000000	100000000	**280**	ND (16)	**88**	**17**	**330**	ND (17)	**330**	**380**	**220**	**790**	**43**	**61**	**1400**	**13 J**	**1100**	**24**	**220**	**550**	**880**
Dibenz(a,h)anthracene	21000	1200000	ND (81)	ND (16)	ND (16)	ND (17)	**33**	ND (17)	**65**	ND (80)	**36**	**120**	**13 J**	**23**	**180**	ND (18)	**370**	ND (18)	**44**	**110**	**220**
Dibenzofuran	1000000	1900000	ND (270)	ND (54)	ND (54)	ND (57)	**36 J**	ND (58)	**59**	**82 J**	**20 J**	**97 J**	ND (53)	ND (55)	**65 J**	ND (59)	**63 J**	ND (59)	**39 J**	**59**	**71 J**
Diethyl phthalate	100000000	100000000	ND (380)	ND (76)	ND (75)	ND (80)	ND (78)	ND (81)	ND (76)	ND (370)	ND (75)	ND (150)	ND (75)	ND (77)	ND (300)	ND (83)	ND (150)	ND (83)	ND (200)	ND (76)	ND (150)
Dimethyl phthalate	-	-	ND (380)	ND (76)	ND (75)	ND (80)	ND (78)	ND (81)	ND (76)	ND (370)	ND (75)	ND (150)	ND (75)	ND (77)	ND (300)	ND (83)	ND (150)	ND (83)	**70 J**	ND (76)	ND (150)
Di-n-butylphthalate	82000000	100000000	ND (380)	ND (76)	ND (75)	ND (80)	ND (78)	ND (81)	ND (76)	ND (370)	ND (75)	ND (150)	ND (75)	ND (77)	ND (300)	ND (83)	ND (150)	ND (83)	ND (200)	ND (76)	ND (150)
Di-n-octyl phthalate	8200000	18000000	ND (380)	ND (76)	ND (75)	ND (80)	ND (78)	ND (81)	ND (76)	ND (370)	ND (75)	ND (150)	ND (75)	ND (77)	ND (300)	ND (83)	ND (150)	ND (83)	ND (200)	ND (76)	ND (150)
Fluoranthene	30000000	68000000	**570**	**20**	**130**	**37**	**850**	**6.9 J**	**590**	**730**	**470**	**1600**	**42**	**77**	**4300**	**23**	**1100**	**32**	**370**	**990**	**1900**
Fluorene	30000000	68000000	**55 J**	ND (16)	ND (16)	ND (17)	**16 J**	ND (17)	**15 J**	**32 J**	**28**	**76**	ND (16)	**4.9 J**	**76**	ND (18)	**46**	ND (18)	ND (42)	**78**	**56**
Hexachlorobenzene	9600	630000	ND (81)	ND (16)	ND (16)	ND (17)	ND (17)	ND (17)	ND (16)	ND (80)	ND (16)	ND (32)	ND (16)	ND (16)	ND (65)	ND (18)	ND (32)	ND (18)	ND (42)	ND (16)	ND (32)
Hexachlorobutadiene	17000	17000	ND (270)	ND (54)	ND (54)	ND (57)	ND (56)	ND (58)	ND (54)	ND (270)	ND (54)	ND (110)	ND (53)	ND (55)	ND (220)	ND (59)	ND (110)	ND (59)	ND (140)	ND (55)	ND (110)
Hexachlorocyclopentadiene	7500	16000	ND (1800)	ND (360)	ND (350)	ND (380)	ND (370)	ND (380)	ND (360)	ND (1800) F1	ND (360) F1	ND (700) F1	ND (350)	ND (360)	ND (1400)	ND (390)	ND (710)	ND (390)	ND (930)	ND (360)	ND (700)
Hexachloroethane	80000	1100000	ND (270)	ND (54)	ND (54)	ND (57)	ND (56)	ND (58)	ND (54)	ND (270)	ND (54)	ND (110)	ND (53)	ND (55)	ND (220)	ND (59)	ND (110)	ND (59)	ND (140)	ND (55)	ND (110)
Indeno(1,2,3-cd)pyrene	210000	12000000	**150**	ND (16)	**44**	ND (17)	**93**	ND (17)	**150**	**180**	**120**	**480**	**28**	**51**	**510**	**13 J**	**1200**	**13 J**	**140**	**330**	**690**
Isophorone	24000000	100000000	ND (270)	ND (54)	ND (54)	ND (57)	ND (56)	ND (58)	ND (54)	ND (270)	ND (54)	ND (110)	ND (53)	ND (55)	ND (220)	ND (59)	ND (110)	ND (59)	ND (140)	ND (55)	ND (110)
Naphthalene	170000	3100000	**86**	**11 J**	**24**	ND (17)	**13 J**	ND (17)	**100**	**150**	**22**	**200**	**10 J**	**23**	**82**	ND (18)	**77**	ND (18)	**82**	**100**	**85**
Nitrobenzene	220000	3100000	ND (540)	ND (110)	ND (110)	ND (110)	ND (110)	ND (120)	ND (110)	ND (530)	ND (110)	ND (210)	ND (110)	ND (110)	ND (430)	ND (120)	ND (210)	ND (120)	ND (280)	ND (110)	ND (210)
N-Nitrosodi-n-propylamine	3300	180000	ND (270)	ND (54)	ND (54)	ND (57)	ND (56)	ND (58)	ND (54)	ND (270)	ND (54)	ND (110)	ND (53)	ND (55)	ND (220)	ND (59)	ND (110)	ND (59)	ND (140)	ND (55)	ND (110)
N-Nitrosodiphenylamine	4700000	100000000	ND (270)	ND (54)	ND (54)	ND (57)	ND (56)	ND (58)	ND (54)	ND (270)	ND (54)	ND (110)	ND (53)	ND (55)	ND (220)	ND (59)	ND (110)	ND (59)	ND (140)	ND (55)	ND (110)
Pentachlorophenol	40000	2600000	ND (810)	ND (160)	ND (160)	ND (170)	ND (170)	ND (170)	ND (160)	ND (800) F1	ND (160)	ND (320)	ND (160)	ND (160)	ND (650)	ND (180)	ND (320)	ND (180)	ND (420)	ND (160)	ND (320)
Phenanthrene	-	-	**510**	**28**	**71**	ND (17)	**670**	ND (17)	**330**	**460**	**300**	**1000**	**28**	**65**	**940**	**15 J**	**520**	**20**	**280**	**720**	**690**
Phenol	100000000	100000000	ND (270)	ND (54)	ND (54)	ND (57)	ND (56)	ND (58)	ND (54)	ND (270)	ND (54)	ND (110)	ND (53)	ND (55)	ND (220)	ND (59)	ND (110)	ND (59)	**23 J**	ND (55)	ND (110)
Pyrene	23000000	51000000	**530**	**51**	**150**	**28**	**620**	**7.1 J**	**530**	**660**	**380**	**1300**	**43**	**73**	**3400**	**22**	**1100**	**30**	**310**	**810**	**1600**
Volatile Organic Compounds (ug/kg)																					
1,1,1-Trichloroethane	640000	640000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260) *	ND (260)	ND (250)	**65 J***	ND (280) *	ND (270) *	ND (260) *	ND (330) *	ND (300) *	ND (330) *	ND (340) *	ND (280) *	ND (250) *
1,1,2,2-Tetrachloroethane	27000	1900000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250) F2	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
1,1,2-Trichloroethane	6300	35000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
1,1-Dichloroethane	160000	1700000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
1,1-Dichloroethene	1000000	1200000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
1,2,4-Trichlorobenzene	260000	400000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
1,2-Dibromo-3-chloropropane (DBCP)	640	86000	ND (560) *	ND (550) *	ND (540) *	ND (600) *	ND (570) *	ND (590) *	ND (520) *	ND (510) *	ND (490) *F2	ND (520) *	ND (560) *	ND (540) *	ND (520) *	ND (660) *	ND (600) *	ND (660) *	ND (670) *	ND (560) *	ND (500) *
1,2-Dibromoethane (Ethylene Dibromide)	1600	180000	ND (280) *	ND (270) *	ND (270) *	ND (300) *	ND (290) *	ND (290) *	ND (260) *	ND (260) *	ND (250) *	ND (260) *	ND (280) *	ND (270) *	ND (260) *	ND (330) *	ND (300) *	ND (330) *	ND (340) *	ND (280) *	ND (250) *
1,2-Dichlorobenzene	380000	380000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
1,2-Dichloroethane	20000	730000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250) F1	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
1,2-Dichloropropane	66000	360000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
1,3-Dichlorobenzene	-	-	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
1,4-Dichlorobenzene	110000	16000000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
2-Butanone (Methyl Ethyl Ketone)	28000000	28000000	ND (1100)	ND (1100)	ND (1100)	ND (1200)	ND (1100)	ND (1200)	ND (1000)	ND (1000)	ND (990)	ND (1000)	ND (1100)	ND (1100)	ND (1000)	ND (1300)	ND (1200)	ND (1300)	ND (1300)	ND (1100)	ND (1000)
2-Hexanone	1300000	3300000	ND (1100)	ND (1100)	ND (1100)	ND (1200)	ND (1100)	ND (1200)	ND (1000)	ND (1000)	ND (990)	ND (1000)	ND (1100)	ND (1100)	ND (1000)	ND (1300)	ND (1200)	ND (1300)	ND (1300)	ND (1100)	ND (1000)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	3400000	3400000	ND (1100)	ND (1100)	ND (1100)	ND (1200)	ND (1100)	ND (1200)	ND (1000)	ND (1000)	ND (990)	ND (1000)	ND (1100)	ND (1100)	ND (1000)	ND (1300)	ND (1200)	ND (1300)	ND (1300)	ND (1100)	ND (1000)
Acetone	100000000	100000000	ND (1100)	ND (1100)	ND (1100)	ND (1200)	ND (1100)	ND (1200)	ND (1000)	ND (1000)	ND (990)	ND (1000)	ND (1100)	ND (1100)	ND (1000)	ND (1300)	ND (1200)	ND (1300)	ND (1300)	ND (1100)	ND (1000)

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
ARCELORMITTAL - INDIANA HARBOR LONG CARBON
EAST CHICAGO, INDIANA

Location	IDEM	IDEM	SB-01	SB-01	SB-02	SB-02	SB-03	SB-03	SB-04	SB-04	SB-04	SB-05	SB-05	SB-05	SB-06	SB-06	SB-07	SB-07	SB-08	SB-08	SB-09
Sample Date	Com/Ind	Excavation	03/05/2019	03/05/2019	03/05/2019	03/05/2019	03/05/2019	03/05/2019	03/05/2019	03/05/2019	03/05/2019	03/06/2019	03/06/2019	03/06/2019	03/06/2019	03/06/2019	03/06/2019	03/06/2019	03/07/2019	03/07/2019	03/06/2019
Sample Type	Direct	Direct	N	N	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	N
Sample Depth (bgs)	Contact	Contact	0 - 2 (ft)	5 - 7 (ft)	0 - 2 (ft)	6 - 8 (ft)	0 - 2 (ft)	6 - 8 (ft)	0 - 2 (ft)	0 - 2 (ft)	6 - 8 (ft)	0 - 2 (ft)	6 - 8 (ft)	6 - 8 (ft)	0 - 2 (ft)	2 - 4 (ft)	0 - 2 (ft)	4 - 6 (ft)	0 - 2 (ft)	2 - 4 (ft)	0 - 2 (ft)
Benzene	51000	1800000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	**8.4 J**	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	**15 J**	ND (280)	ND (250)
Bromodichloromethane	13000	930000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
Bromoform	860000	920000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260) *	ND (260)	ND (250)	ND (260) *	ND (280) *	ND (270) *	ND (260) *	ND (330) *	ND (300) *	ND (330) *	ND (340) *	ND (280) *	ND (250) *
Bromomethane (Methyl Bromide)	30000	160000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
Carbon disulfide	740000	740000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250) F2	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
Carbon tetrachloride	29000	460000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260) *	ND (260)	ND (250)	ND (260) *	ND (280) *	ND (270) *	ND (260) *	ND (330) *	ND (300) *	ND (330) *	ND (340) *	ND (280) *	ND (250) *
Chlorobenzene	760000	760000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
Chloroethane	2100000	2100000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	ND (260) F2	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
Chloroform (Trichloromethane)	14000	1900000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
Chloromethane (Methyl Chloride)	460000	1300000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
cis-1,2-Dichloroethene	2300000	2400000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
cis-1,3-Dichloropropene	-	-	ND (280) *	ND (270) *	ND (270) *	ND (300) *	ND (290) *	ND (290) *	ND (260) *	ND (260) *	ND (250) *	ND (260) *	ND (280) *	ND (270) *	ND (260) *	ND (330) *	ND (300) *	ND (330) *	ND (340) *	ND (280) *	ND (250) *
Cyclohexane	120000	120000	ND (560)	ND (550)	ND (540)	ND (600)	ND (570)	ND (590)	ND (520)	ND (510)	ND (490)	ND (520)	ND (560)	ND (540)	ND (520)	ND (660)	ND (600)	ND (660)	ND (670)	ND (560)	ND (500)
Dibromochloromethane	390000	800000	ND (280) *	ND (270) *	ND (270) *	ND (300) *	ND (290) *	ND (290) *	ND (260) *	ND (260) *	ND (250) *	ND (260) *	ND (280) *	ND (270) *	ND (260) *	ND (330) *	ND (300) *	ND (330) *	ND (340) *	ND (280) *	ND (250) *
Dichlorodifluoromethane (CFC-12)	370000	850000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
Ethylbenzene	250000	480000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	**26 J**	**18 J**	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	**19 J**	ND (280)	ND (250)
Isopropylbenzene (Cumene)	270000	270000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
Methyl acetate	29000000	29000000	ND (1400)	ND (1400)	ND (1300)	ND (1500)	ND (1400)	ND (1500)	ND (1300)	ND (1300)	ND (1200) F1	ND (1300)	ND (1400)	ND (1400)	**2100**	ND (1700)	ND (1500)	ND (1600)	**900 J**	ND (1400)	**530 J**
Methyl cyclohexane	-	-	ND (560)	ND (550)	ND (540)	ND (600)	ND (570)	ND (590)	ND (520)	ND (510)	**120 J**	**80 J**	ND (560)	ND (540)	ND (520)	ND (660)	ND (600)	ND (660)	ND (670)	ND (560)	ND (500)
Methyl Tert Butyl Ether	2100000	8900000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
Methylene chloride	3200000	3300000	ND (560)	ND (550)	ND (540)	ND (600)	ND (570)	ND (590)	ND (520)	ND (510)	ND (490)	ND (520)	ND (560)	ND (540)	ND (520)	ND (660)	ND (600)	ND (660)	ND (670)	ND (560)	ND (500)
Naphthalene	170000	3.10E+06	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	**170 J***	ND (260)	ND (250)	**190 J***	ND (280)*	ND (270)*	ND (260)*	ND (330)*	ND (300)*	ND (330)*	ND (340)*	ND (280)*	ND (250)*
Styrene	870000	870000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
Tetrachloroethene	170000	170000	**77 J**	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	**33 J**	**29 J**	ND (250)	**190 J**	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	**51 J**	ND (280)	ND (250)
Toluene	820000	820000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	**110 J**	**83 J**	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
trans-1,2-Dichloroethene	1900000	1900000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
trans-1,3-Dichloropropene	-	-	ND (280) *	ND (270) *	ND (270) *	ND (300) *	ND (290) *	ND (290) *	ND (260) *	ND (260) *	ND (250) *	ND (260) *	ND (280) *	ND (270) *	ND (260) *	ND (330) *	ND (300) *	ND (330) *	ND (340) *	ND (280) *	ND (250) *
Trichloroethene	19000	95000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250) F1	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
Trichlorofluoromethane (CFC-11)	1200000	1200000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
Trifluorotrichloroethane (Freon 113)	910000	910000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
Vinyl chloride	17000	1300000	ND (280)	ND (270)	ND (270)	ND (300)	ND (290)	ND (290)	ND (260)	ND (260)	ND (250)	ND (260)	ND (280)	ND (270)	ND (260)	ND (330)	ND (300)	ND (330)	ND (340)	ND (280)	ND (250)
Xylene (total)	260000	260000	ND (560)	ND (550)	ND (540)	ND (600)	ND (570)	ND (590)	**26 J**	ND (510)	**180 J**	**85 J**	ND (560)	ND (540)	ND (520)	ND (660)	ND (600)	ND (660)	ND (670)	ND (560)	ND (500)

Notes:
1. Results in **bold** were detected.
2. Results in red exceed one or more of the following IDEM criteria (3/2019)
   [A] - Commercial/Industrial Direct Contact
   [B] - Excavation Direct Contact
3. ND - Not detected above reporting limit
   J - Estimated result
   F1 - MS and/or MSD Recovery outside of acceptance limits
   F2 - MS/MSD exceeds control limits
   F4 - MS/MSD RPD exceeds control limits due to sample size difference
   * - LCS or LCSD is outside of acceptance limits

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
ARCELORMITTAL - INDIANA HARBOR LONG CARBON
EAST CHICAGO, INDIANA

Location	IDEM	IDEM	SB-09	SB-10	SB-10
Sample Date	Com/Ind	Excavation	03/06/2019	03/06/2019	03/06/2019
Sample Type	Direct	Direct	N	N	N
Sample Depth (bgs)	Contact	Contact	3 - 5 (ft)	0 - 2 (ft)	4 - 6 (ft)
Inorganic Compounds (mg/kg)					
Antimony	470	790	ND (0.94)	ND (1)	ND (0.97)
Arsenic	30	920	**3.7**	**4.9**	**1.7**
Barium	100000	100000	**11 J**	**32**	**4.9 J**
Beryllium	2300	3800	**0.2 J**	**0.28 J**	ND (0.49)
Cadmium	980	1900	**0.22**	**0.36**	**0.078 J**
Chromium	-	-	**12**	**61**	**44**
Cobalt	350	590	**2.5**	**2.5**	**1.6**
Copper	47000	79000	**19**	**28**	**3.8**
Cyanide	150	560	ND (0.56)	**0.48 J**	ND (0.59)
Iron	100000	100000	**24000**	**19000**	**7100**
Lead	800	1000	**17**	**29**	**4**
Magnesium	-	-	**590**	**16000**	**14000**
Manganese	26000	46000	**600 B**	**1900 B**	**550 B**
Mercury	3.1	3.1	ND (0.12)	**0.019 J**	ND (0.12)
Nickel	22000	38000	**8.9**	**9.2**	**2.8 J**
Selenium	5800	9800	**0.68 J**	**1.4 J**	**0.63 J**
Silver	5800	9800	**0.27 JB**	**0.46 JB**	**0.19 JB**
Sodium	-	-	ND (470)	**150 J**	**77 J**
Thallium	12	20	ND (0.94)	ND (2.1)	ND (0.97)
Tin	100000	100000	**4.8 J**	**5 J**	ND (9.7)
Vanadium	5800	9900	**7.8**	**28**	**14**
Zinc	100000	100000	**63**	**88**	**17**
Other (mg/kg)					
Sulfide	-	-	ND (35)	**41**	ND (36)
Semi-Volatile Organic Compounds (ug/kg)					
2,2'-oxybis(1-Chloropropane)	1000000	1000000	ND (120)	ND (270)	ND (120)
2,4,5-Trichlorophenol	82000000	100000000	ND (170)	ND (400)	ND (180)
2,4,6-Trichlorophenol	820000	1800000	ND (170)	ND (400)	ND (180)
2,4-Dichlorophenol	2500000	5200000	ND (170)	ND (400)	ND (180)
2,4-Dimethylphenol	16000000	34000000	ND (170)	ND (400)	ND (180)
2,4-Dinitrophenol	1600000	3400000	ND (380)	ND (890)	ND (390)
2,4-Dinitrotoluene	74000	3400000	ND (230)	ND (540)	ND (230)
2,6-Dinitrotoluene	15000	520000	ND (230)	ND (540)	ND (230)
2-Chloronaphthalene	60000000	100000000	ND (58)	ND (130)	ND (59)
2-Chlorophenol	5800000	9800000	ND (58)	ND (130)	ND (59)
2-Methylnaphthalene	3000000	6800000	**53**	**130**	**25**
2-Methylphenol (o-Cresol)	41000000	87000000	ND (230)	ND (540)	ND (230)
2-Nitroaniline	8000000	18000000	ND (230)	ND (540)	ND (230)
2-Nitrophenol	-	-	ND (58)	ND (130)	ND (59)
3&4-Methylphenol	-	-	ND (460)	ND (1100)	ND (470)
3,3'-Dichlorobenzidine	51000	2700000	ND (120)	ND (270)	ND (120)
3-Nitroaniline	-	-	ND (230)	ND (540)	ND (230)
4,6-Dinitro-2-methylphenol	66000	140000	ND (380)	ND (890)	ND (390)
4-Bromophenyl phenyl ether	-	-	ND (58)	ND (130)	ND (59)
4-Chloro-3-methylphenol	82000000	100000000	ND (170)	ND (400)	ND (180)
4-Chloroaniline	110000	6000000	ND (170)	ND (400)	ND (180)
4-Chlorophenyl phenyl ether	-	-	ND (58)	ND (130)	ND (59)
4-Nitroaniline	1100000	7000000	ND (230)	ND (540)	ND (230)
4-Nitrophenol	-	-	ND (380)	ND (890)	ND (390)
Acenaphthene	45000000	100000000	ND (17)	**59**	**17 J**
Acenaphthylene	-	-	**50**	**29 J**	ND (18)
Acetophenone	2500000	2500000	ND (120)	ND (270)	ND (120)
Anthracene	100000000	100000000	**66**	**150**	**54**

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
ARCELORMITTAL - INDIANA HARBOR LONG CARBON
EAST CHICAGO, INDIANA

Location	IDEM	IDEM	SB-09	SB-10	SB-10
Sample Date	Com/Ind	Excavation	03/06/2019	03/06/2019	03/06/2019
Sample Type	Direct	Direct	N	N	N
Sample Depth (bgs)	Contact	Contact	3 - 5 (ft)	0 - 2 (ft)	4 - 6 (ft)
Atrazine	100000	5200000	ND (230)	ND (540)	ND (230)
Benzaldehyde	1200000	1200000	ND (120)	**63 J**	ND (120)
Benzo(a)anthracene	210000	12000000	**440**	**370**	**120**
Benzo(a)pyrene	21000	500000	**680**	**340**	**120**
Benzo(b)fluoranthene	210000	12000000	**1200**	**490**	**230**
Benzo(g,h,i)perylene	-	-	**900**	**240**	**130**
Benzo(k)fluoranthene	2100000	100000000	**400**	**130**	**62**
Biphenyl	200000	1100000	ND (58)	ND (130)	ND (59)
bis(2-Chloroethoxy)methane	2500000	5200000	ND (120)	ND (270)	ND (120)
bis(2-Chloroethyl)ether	10000	810000	ND (120)	ND (270)	ND (120)
bis(2-Ethylhexyl)phthalate	1600000	34000000	ND (81)	ND (190)	ND (82)
Butyl benzylphthalate	12000000	100000000	ND (81)	ND (190)	ND (82)
Caprolactam	100000000	100000000	ND (380)	ND (890)	ND (390)
Carbazole	-	-	**27 J**	**69 J**	**25 J**
Chrysene	21000000	100000000	**680**	**420**	**140**
Dibenz(a,h)anthracene	21000	1200000	**280**	**63**	**39**
Dibenzofuran	1000000	1900000	**33 J**	**120 J**	**21 J**
Diethyl phthalate	100000000	100000000	ND (81)	ND (190)	ND (82)
Dimethyl phthalate	-	-	ND (81)	ND (190)	ND (82)
Di-n-butylphthalate	82000000	100000000	ND (81)	ND (190)	ND (82)
Di-n-octyl phthalate	8200000	18000000	ND (81)	ND (190)	ND (82)
Fluoranthene	30000000	68000000	**460**	**890**	**220**
Fluorene	30000000	68000000	ND (17)	**53**	**20**
Hexachlorobenzene	9600	630000	ND (17)	ND (40)	ND (18)
Hexachlorobutadiene	17000	17000	ND (58)	ND (130)	ND (59)
Hexachlorocyclopentadiene	7500	16000	ND (380)	ND (890)	ND (390)
Hexachloroethane	80000	1100000	ND (58)	ND (130)	ND (59)
Indeno(1,2,3-cd)pyrene	210000	12000000	**680**	**210**	**100**
Isophorone	24000000	100000000	ND (58)	ND (130)	ND (59)
Naphthalene	170000	3100000	**55**	**59**	**23**
Nitrobenzene	220000	3100000	ND (120)	ND (270)	ND (120)
N-Nitrosodi-n-propylamine	3300	180000	ND (58)	ND (130)	ND (59)
N-Nitrosodiphenylamine	4700000	100000000	ND (58)	ND (130)	ND (59)
Pentachlorophenol	40000	2600000	ND (170)	ND (400)	ND (180)
Phenanthrene	-	-	**210**	**990**	**210**
Phenol	100000000	100000000	ND (58)	ND (130)	**45 J**
Pyrene	23000000	51000000	**460**	**690**	**180**
Volatile Organic Compounds (ug/kg)					
1,1,1-Trichloroethane	640000	640000	ND (290) *	ND (360) *	ND (290) *
1,1,2,2-Tetrachloroethane	27000	1900000	ND (290)	ND (360)	ND (290)
1,1,2-Trichloroethane	6300	35000	ND (290)	ND (360)	ND (290)
1,1-Dichloroethane	160000	1700000	ND (290)	ND (360)	ND (290)
1,1-Dichloroethene	1000000	1200000	ND (290)	ND (360)	ND (290)
1,2,4-Trichlorobenzene	260000	400000	ND (290)	ND (360)	ND (290)
1,2-Dibromo-3-chloropropane (DBCP)	640	86000	ND (580) *	ND (720) *	ND (590) *
1,2-Dibromoethane (Ethylene Dibromide)	1600	180000	ND (290) *	ND (360) *	ND (290) *
1,2-Dichlorobenzene	380000	380000	ND (290)	ND (360)	ND (290)
1,2-Dichloroethane	20000	730000	ND (290)	ND (360)	ND (290)
1,2-Dichloropropane	66000	360000	ND (290)	ND (360)	ND (290)
1,3-Dichlorobenzene	-	-	ND (290)	ND (360)	ND (290)
1,4-Dichlorobenzene	110000	16000000	ND (290)	ND (360)	ND (290)
2-Butanone (Methyl Ethyl Ketone)	28000000	28000000	ND (1200)	ND (1400)	ND (1200)
2-Hexanone	1300000	3300000	ND (1200)	ND (1400)	ND (1200)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	3400000	3400000	ND (1200)	ND (1400)	ND (1200)
Acetone	100000000	100000000	ND (1200)	ND (1400)	ND (1200)

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
ARCELORMITTAL - INDIANA HARBOR LONG CARBON
EAST CHICAGO, INDIANA

Location	IDEM	IDEM	SB-09	SB-10	SB-10
Sample Date	Com/Ind	Excavation	03/06/2019	03/06/2019	03/06/2019
Sample Type	Direct	Direct	N	N	N
Sample Depth (bgs)	Contact	Contact	3 - 5 (ft)	0 - 2 (ft)	4 - 6 (ft)
Benzene	51000	1800000	ND (290)	ND (360)	ND (290)
Bromodichloromethane	13000	930000	ND (290)	ND (360)	ND (290)
Bromoform	860000	920000	ND (290) *	ND (360) *	ND (290) *
Bromomethane (Methyl Bromide)	30000	160000	ND (290)	ND (360)	ND (290)
Carbon disulfide	740000	740000	ND (290)	ND (360)	ND (290)
Carbon tetrachloride	29000	460000	ND (290) *	ND (360) *	ND (290) *
Chlorobenzene	760000	760000	ND (290)	ND (360)	ND (290)
Chloroethane	2100000	2100000	ND (290)	ND (360)	ND (290)
Chloroform (Trichloromethane)	14000	1900000	ND (290)	ND (360)	ND (290)
Chloromethane (Methyl Chloride)	460000	1300000	ND (290)	ND (360)	ND (290)
cis-1,2-Dichloroethene	2300000	2400000	ND (290)	ND (360)	ND (290)
cis-1,3-Dichloropropene	-	-	ND (290) *	ND (360) *	ND (290) *
Cyclohexane	120000	120000	ND (580)	ND (720)	ND (590)
Dibromochloromethane	390000	800000	ND (290) *	ND (360) *	ND (290) *
Dichlorodifluoromethane (CFC-12)	370000	850000	ND (290)	ND (360)	ND (290)
Ethylbenzene	250000	480000	ND (290)	ND (360)	ND (290)
Isopropylbenzene (Cumene)	270000	270000	ND (290)	ND (360)	ND (290)
Methyl acetate	29000000	29000000	ND (1500)	ND (1800)	ND (1500)
Methyl cyclohexane	-	-	ND (580)	ND (720)	ND (590)
Methyl Tert Butyl Ether	2100000	8900000	ND (290)	ND (360)	ND (290)
Methylene chloride	3200000	3300000	ND (580)	ND (720)	ND (590)
Naphthalene	170000	3.10E+06	ND (290)*	ND (360)*	ND (290)*
Styrene	870000	870000	ND (290)	ND (360)	ND (290)
Tetrachloroethene	170000	170000	ND (290)	ND (360)	ND (290)
Toluene	820000	820000	ND (290)	ND (360)	ND (290)
trans-1,2-Dichloroethene	1900000	1900000	ND (290)	ND (360)	ND (290)
trans-1,3-Dichloropropene	-	-	ND (290) *	ND (360) *	ND (290) *
Trichloroethene	19000	95000	ND (290)	ND (360)	ND (290)
Trichlorofluoromethane (CFC-11)	1200000	1200000	ND (290)	ND (360)	ND (290)
Trifluorotrichloroethane (Freon 113)	910000	910000	ND (290)	ND (360)	ND (290)
Vinyl chloride	17000	1300000	ND (290)	ND (360)	ND (290)
Xylene (total)	260000	260000	ND (580)	ND (720)	ND (590)

Notes:
1. Results in **bold** were detected.
2. Results in red exceed one or more of the following IDEM criteria (3/2019)
   [A] - Commercial/Industrial Direct Contact
   [B] - Excavation Direct Contact
3. ND - Not detected above reporting limit
   J - Estimated result
   F1 - MS and/or MSD Recovery outside of acceptance limits
   F2 - MS/MSD exceeds control limits
   F4 - MS/MSD RPD exceeds control limits due to sample size difference
   * - LCS or LCSD is outside of acceptance limits

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
ARCELORMITTAL - INDIANA HARBOR LONG CARBON
EAST CHICAGO, INDIANA

Location	Groundwater to Surface Water Discharge Exposure Pathway				Industrial/Commercial Exposure to Groundwater					IFW-02-00022	IFW-02-00022R	IFW-02-00022R	IFW-02-00018	IMW-02-00001R	IMW-02-00004S	IMW-02-00004S	IMW-02-00004S
Sample Date										04/21/1998	03/08/2019	03/08/2019	04/29/1998	03/07/2019	11/10/2008	06/10/2009	03/08/2019
Sample Type	Tier1A				Tier1A		Tier 1B			N	N	FD	N	N	N	N	N
Sample Name	Human Receptors Carcinogen	Human Receptors Non-Carcinogen	Ecological Receptors	Wildlife	Carcinogen	Non-Carcinogen	Human Screening Criteria	Non-Default Human Screening Criteria	Ecological Screening Criteria	IFW-02-00022-042198	IFW-02-00022R	9584-030819-0004	IFW-02-00018-042998	IMW-02-00001R	IMW-02-00004S-111008	IMW-02-00004S-061009	IMW-02-0004S
Inorganic Compounds (ug/L)																	
Antimony, Total	-	2000	80	-	-	41	-	-	-	-	-	-	ND (250)	ND (10)	**5.1 JB**	ND (60)	-
Arsenic, Total	-	230	147.9	-	1.9	-	2300	-	-	-	-	-	ND (5)	**12 [E]**	-	-	-
Barium, Total	-	1000	1001.11	-	-	20000	-	-	-	-	-	-	**107 J**	**32 J**	**70.3 J**	**74.9 J**	-
Beryllium, Total	-	300	17.1	-	-	200	-	-	-	-	-	-	ND (3)	ND (5)	-	-	-
Cadmium, Total	-	1400	4.54	-	-	51	-	-	-	-	-	-	ND (10)	**0.41 J**	ND (5)	ND (5)	-
Chromium, Total	-	25000	10.98	-	-	310	250000	-	109.8	-	-	-	ND (50) J	**20 [C]**	-	-	-
Cobalt, Total	-	-	19	-	-	-	-	-	-	-	-	-	ND (50)	**0.93 J**	ND (50)	**2 J**	-
Copper, Total	-	56000	18.14	-	-	4100	-	-	-	-	-	-	ND (50) J	**17 J**	-	-	-
Cyanide, Total	-	48000	5.2	-	-	2000	480000	-	52	-	-	-	-	-	ND (10)	ND (10)	-
Iron, Total	-	300	1000	-	-	-	3000	183906	10000	-	-	-	**24600 J [BCGI]**	**630 [B]**	**206**	**228**	-
Lead, Total	-	-	17.29	-	-	42	-	-	-	-	-	-	ND (5)	**23 [C]**	-	-	-
Magnesium, Total	-	-	-	-	-	-	-	-	-	-	-	-	**46500**	**18000**	**22600**	**25300**	-
Manganese, Total	-	50	1048.1	-	-	2450	500	30651	10481	-	-	-	**378 [B]**	**440 [B]**	**474 [B]**	**593 [BG]**	-
Mercury, Total	-	0.0018	0.9081	0.0013	-	31	-	-	-	-	-	-	ND (0.5)	ND (0.2)	ND (0.2)	ND (0.2)	-
Nickel, Total	-	42000	100.76	-	-	2000	-	-	-	-	-	-	ND (50)	**6.8 J**	ND (40)	ND (40)	-
Selenium, Total	-	3400	5	-	-	510	-	-	-	-	-	-	ND (5)	ND (15)	ND (5)	ND (5)	-
Silver, Total	-	26000	0.12	-	-	510	-	-	-	-	-	-	ND (50)	ND (5)	-	-	-
Sodium, Total	-	-	-	-	-	-	-	-	-	-	-	-	**70000**	**14000**	**92700**	**113000**	-
Thallium, Total	-	5	6	-	-	7.2	-	-	-	-	-	-	ND (2)	**4 J**	-	-	-
Tin, Total	-	-	180	-	12000	-	-	-	-	-	-	-	ND (50)	ND (100)	-	-	-
Vanadium, Total	-	2300	12	-	86	-	-	-	-	-	-	-	ND (50)	**12 J**	ND (50)	ND (50)	-
Zinc, Total	-	250000	231.67	-	-	31000	-	-	-	-	-	-	**32**	**54**	-	-	-
Other (ug/L)																	
Ammonia (as N)	-	-	2065	-	-	-	-	-	20650	-	-	-	-	-	**500**	**500**	-
Chloride	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**151000**	**126000**	-
Hardness as CaCO3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**310000**	**330000**	-
Sulfate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**148000**	**144000**	-
Sulfide	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (1000)	ND (1000)	-
Total Dissolved Solids (TDS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**630000 J**	**720000**	-
Total Suspended Solids (TSS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (4000)	ND (4000)	-
Semi-Volatile Organic Compounds (ug/L)																	
1,2,4-Trichlorobenzene	-	35	30	-	-	1000	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
1,2-Dichlorobenzene	-	6000	14	-	-	9200	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
1,3,5-Trinitrobenzene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (50)	ND (50)	-
1,3-Dinitrobenzene	-	-	22	-	-	-	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
1,4-Dichlorobenzene	-	63	16	-	120	-	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
2,3,4,6-Tetrachlorophenol	-	-	1.2	-	-	-	-	-	-	-	-	-	-	-	ND (50)	ND (50)	-
2,4,5-Trichlorophenol	-	2500	1.9	-	-	10000	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
2,4-Dinitrophenol	-	2800	19	-	-	200	-	-	-	-	-	-	-	-	ND (50)	ND (50)	-
2,4-Dinitrotoluene	1.1	-	44	-	4.2	-	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
2,6-Dichlorophenol	-	450	-	-	-	310	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
2,6-Dinitrotoluene	-	-	81	-	4.2	-	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
2-Acetylaminofluorene	-	-	535	-	-	-	-	-	-	-	-	-	-	-	ND (100)	ND (100)	-
2-Chlorophenol	-	81	24	-	-	510	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
2-Methylnaphthalene	-	-	330	-	-	410	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
2-Naphthylamine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
2-Nitroaniline	-	-	-	-	-	310	-	-	-	-	-	-	-	-	ND (50)	ND (50)	-
3,3'-Dichlorobenzidine	0.95	-	4.5	-	6.4	-	-	-	-	-	-	-	-	-	ND (50)	ND (50)	-
3,3-Dimethylbenzidine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (50)	50 R	-
3-Methylphenol	-	44000	67	-	-	5100	-	-	-	-	-	-	-	-	ND (10) J	ND (10)	-
4,6-Dinitro-2-methylphenol	-	13	23	-	-	-	-	-	-	-	-	-	-	-	ND (50)	ND (50)	-
4-Aminobiphenyl	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (50)	ND (50)	-

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ARCELORMITTAL - INDIANA HARBOR LONG CARBON
EAST CHICAGO, INDIANA

Location	Groundwater to Surface Water Discharge Exposure Pathway				Industrial/Commercial Exposure to Groundwater					IFW-02-00022	IFW-02-00022R	IFW-02-00022R	IFW-02-00018	IMW-02-00001R	IMW-02-00004S	IMW-02-00004S	IMW-02-00004S
Sample Date										04/21/1998	03/08/2019	03/08/2019	04/29/1998	03/07/2019	11/10/2008	06/10/2009	03/08/2019
Sample Type	Tier1A				Tier1A		Tier 1B			N	N	FD	N	N	N	N	N
Sample Name	Human Receptors Carcinogen	Human Receptors Non-Carcinogen	Ecological Receptors	Wildlife	Carcinogen	Non-Carcinogen	Human Screening Criteria	Non-Default Human Screening Criteria	Ecological Screening Criteria	IFW-02-00022-042198	IFW-02-00022R	9584-030819-0004	IFW-02-00018-042998	IMW-02-00001R	IMW-02-00004S-111008	IMW-02-00004S-061009	IMW-02-0004S
4-Bromophenyl phenyl ether	-	-	1.5	-	-	-	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
4-Nitroaniline	-	-	-	-	-	310	-	-	-	-	-	-	-	-	ND (50)	ND (50)	-
Acenaphthylene	-	-	4840	-	-	730	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
Benzo(a)anthracene	0.038	-	0.025	-	3.9	-	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
Benzo(a)pyrene	0.096	-	0.014	-	0.039	-	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
Benzyl Alcohol	-	-	8.6	-	-	31000	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
bis(2-Chloroethoxy)methane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (10) J	ND (10)	-
Diallate	-	-	-	-	5.4	-	-	-	-	-	-	-	-	-	10 R	ND (10)	-
Diethyl phthalate	-	1.20E+06	110	-	-	82000	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
Dimethyl phthalate	-	270000	1000	-	-	1.00E+06	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
Di-n-octyl phthalate	-	-	30	-	-	20	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
Dinoseb	-	69	0.48	-	-	-	-	-	-	-	-	-	-	-	ND (20)	ND (20)	-
Diphenylamine	-	-	412	-	-	-	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
Disulfoton	-	-	0.0402	-	-	-	-	-	-	-	-	-	-	-	ND (50)	ND (50)	-
Ethyl methanesulfonate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
Fluoranthene	-	9.5	3.6	-	-	210	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
Hexachlorocyclopentadiene	-	1500	77	-	-	610	-	-	-	-	-	-	-	-	ND (50)	ND (50)	-
Hexachloroethane	6.7	7.6	8	-	-	100	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
Hexachloropropene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (100)	ND (100)	-
Indeno(1,2,3-cd)pyrene	0.038	-	4.31	-	0.022	-	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
Nitrobenzene	-	28000	220	-	-	51	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
N-Nitrosodiethylamine	0.18	-	768	-	-	-	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
N-Nitrosodimethylamine	0.55	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
N-Nitrosodi-n-propylamine	2.9	-	-	-	0.41	-	-	-	-	-	-	-	-	-	ND (10) J	ND (10)	-
N-Nitrosodiphenylamine	74	-	25	-	580	-	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
N-Nitrosomethylethylamine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
N-Nitrosomorpholine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (10) J	ND (10)	-
Pentachloronitrobenzene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (50)	ND (50)	-
Pentachlorophenol	84	24000	1130.56	-	24	-	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
Phenanthrene	-	-	0.93	-	-	310	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
Phenol	-	2300	180	-	5800	3100	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
Pyrene	-	15	0.3	-	-	140	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-
Pyridine	-	-	2380	-	-	-	-	-	-	-	-	-	-	-	ND (20)	ND (20)	-
Safrole	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (20)	ND (20)	-
Thionazin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (50)	ND (50)	-
Volatile Organic Compounds (ug/L)																	
1,1,1,2-Tetrachloroethane	-	-	-	-	110	-	-	-	-	-	-	-	-	-	ND (1)	-	-
1,1,1-Trichloroethane	-	-	410	-	-	29000	-	-	-	-	ND (1)	ND (1)	-	-	ND (1)	-	ND (1)
1,1,2,2-Tetrachloroethane	17	-	100	-	14	-	-	-	-	-	ND (1)	ND (1)	-	-	-	ND (1)	ND (1)
1,1,2-Trichloroethane	-	3000	87	-	50	-	-	-	-	-	ND (1)	ND (1)	-	-	-	ND (1)	ND (1)
1,1-Dichloroethane	-	27000	740	-	-	10000	-	-	-	-	ND (1)	ND (1)	-	-	**1.8**	**0.86 J**	ND (1)
1,1-Dichloroethene	-	4100	210	-	-	5100	-	-	-	-	ND (1)	ND (1)	-	-	**0.35 J**	-	ND (1)
1,2,3-Trichloropropane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (1)	-	-
1,2,4-Trichlorobenzene	-	35	30	-	-	1000	-	-	-	-	ND (1)	ND (1)	-	-	-	-	ND (1)
1,2-Dibromo-3-chloropropane (DBCP)	-	-	-	-	-	-	-	-	-	-	ND (2)	ND (2)	-	-	-	ND (2)	ND (2)
1,2-Dibromoethane (Ethylene Dibromide)	0.17	-	-	-	1.4	-	-	-	-	-	ND (1)	ND (1)	-	-	ND (1)	-	ND (1)
1,2-Dichlorobenzene	-	6000	14	-	-	9200	-	-	-	-	ND (1)	ND (1)	-	-	-	-	ND (1)
1,2-Dichloroethane	210	-	980	-	31	-	-	-	-	-	ND (1)	ND (1)	-	-	-	ND (1)	ND (1)
1,2-Dichloropropane	5	-	360	-	42	-	-	-	-	-	ND (1)	ND (1)	-	-	-	ND (1)	ND (1)
1,3-Dichlorobenzene	-	320	52	-	-	310	-	-	-	-	ND (1)	ND (1)	-	-	-	-	ND (1)
1,4-Dichlorobenzene	-	63	16	-	120	-	-	-	-	-	ND (1)	ND (1)	-	-	-	-	ND (1)
2-Butanone (Methyl Ethyl Ketone)	-	1300	14000	-	-	61000	-	-	-	-	ND (10)	ND (10)	-	-	ND (10)	-	ND (10)
2-Hexanone	-	-	99	-	-	6100	-	-	-	-	ND (10)	ND (10)	-	-	-	ND (10)	ND (10)
4-Methyl-2-Pentanone	-	-	170	-	-	8200	-	-	-	-	ND (10)	ND (10)	-	-	-	ND (10)	ND (10)
Acetone	-	220000	1700	-	-	92000	-	-	-	-	ND (10)	ND (10)	-	-	-	ND (10)	ND (10)

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Sample Date										04/21/1998	03/08/2019	03/08/2019	04/29/1998	03/07/2019	11/10/2008	06/10/2009	03/08/2019
Sample Type	Tier1A				Tier1A		Tier 1B			N	N	FD	N	N	N	N	N
Sample Name	Human Receptors Carcinogen	Human Receptors Non-Carcinogen	Ecological Receptors	Wildlife	Carcinogen	Non-Carcinogen	Human Screening Criteria	Non-Default Human Screening Criteria	Ecological Screening Criteria	IFW-02-00022-042198	IFW-02-00022R	9584-030819-0004	IFW-02-00018-042998	IMW-02-00001R	IMW-02-00004S-111008	IMW-02-00004S-061009	IMW-02-0004S
Acetonitrile	-	-	12000	-	-	-	-	-	-	-	-	-	-	-	ND (20)	-	-
Acrolein	-	190	0.19	-	-	51	-	-	-	-	-	-	-	-	-	ND (20)	-
Acrylonitrile	3	-	63	-	-	-	-	-	-	-	-	-	-	-	-	ND (20)	-
Allyl chloride	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (2) J	-	-
Benzene	310	510	98	-	52	-	-	-	-	ND (17)	**3.6**	**3.4**	ND (17)	-	-	ND (1)	ND (1)
Bromodichloromethane	150	13000	-	-	46	-	-	-	-	-	ND (1)	ND (1)	-	-	ND (1) J	-	ND (1)
Bromoform	710	8100	61	-	360	-	-	-	-	-	ND (1)	ND (1)	-	-	-	ND (1) J	ND (1)
Bromomethane (Methyl Bromide)	-	-	16	-	-	140	-	-	-	-	ND (1)	ND (1)	-	-	-	ND (1)	ND (1)
Carbon disulfide	-	100000	15	-	-	16000	-	-	-	-	ND (1)	ND (1)	-	-	ND (1)	-	ND (1)
Carbon tetrachloride	19	120	40	-	22	-	-	-	-	-	ND (1)	ND (1)	-	-	ND (1)	-	ND (1)
Chlorobenzene	-	3200	47	-	-	2000	-	-	-	-	ND (1)	ND (1)	-	-	-	ND (1)	ND (1)
Chloroethane	-	-	-	-	990	-	-	-	-	-	ND (1)	ND (1)	-	-	-	ND (1)	ND (1)
Chloroform (Trichloromethane)	1700	11000	170	-	80	1000	-	-	-	-	ND (1)	ND (1)	-	-	ND (1)	-	ND (1)
Chloromethane (Methyl Chloride)	-	-	-	-	-	-	-	-	-	-	ND (1)	ND (1)	-	-	ND (1)	-	ND (1)
Chloroprene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (2)	-
cis-1,2-Dichloroethene	-	-	620	-	-	1000	-	-	-	-	**0.17 J**	**0.16 J**	-	-	**230**	**280**	**28**
cis-1,3-Dichloropropene	170	46000	1.9	-	29	-	-	-	-	-	ND (1)	ND (1)	-	-	ND (1) J	-	ND (1)
Cyclohexane	-	-	-	-	-	-	-	-	-	-	**1.7**	**1.8**	-	-	-	-	ND (1)
Dibromochloromethane	86	12000	-	-	-	-	-	-	-	-	ND (1)	ND (1)	-	-	-	ND (1) J	ND (1)
Dibromomethane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (1) J	-	-
Dichlorodifluoromethane (CFC-12)	-	-	-	-	-	-	-	-	-	-	ND (1)	ND (1)	-	-	ND (1)	-	ND (1)
Ethyl methacrylate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (1)	-
Ethylbenzene	-	9100	110	-	-	10000	-	-	-	ND (8.2)	**0.13 J**	**0.13 J**	ND (8.2)	-	ND (1)	-	ND (1)
Iodomethane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (1)	-
Isopropylbenzene (Cumene)	-	-	-	-	-	-	-	-	-	-	**10**	**10**	-	-	-	-	ND (1)
Methyl acetate	-	-	-	-	-	-	-	-	-	-	ND (10)	ND (10)	-	-	-	-	ND (10)
Methyl acrylonitrile	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (2)	-	-
Methyl cyclohexane	-	-	-	-	-	-	-	-	-	-	**3.3**	**3.6**	-	-	-	-	ND (1)
Methyl methacrylate	-	-	2800	-	-	-	-	-	-	-	-	-	-	-	ND (2)	-	-
Methyl Tert Butyl Ether	-	-	-	-	-	-	-	-	-	-	ND (1)	ND (1)	-	-	-	-	ND (1)
Methylene chloride	2600	90000	1500	-	380	-	-	-	-	-	ND (5)	ND (5)	-	-	-	ND (1)	ND (5)
Naphthalene	-	1900	26	-	-	2000	-	-	-	**72.7** [C]	ND (1)	ND (1)	ND (17)	-	-	-	ND (1)
Propionitrile (Ethyl cyanide)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4 R	-	-
Styrene	-	32000	32	-	-	20000	-	-	-	-	ND (1)	ND (1)	-	-	-	ND (1)	ND (1)
Tetrachloroethene	60	1700	60	-	55	-	-	-	-	ND (16)	ND (1)	ND (1)	ND (16)	-	**47 J**	**52**	**12**
Toluene	-	51000	94	-	-	8200	-	-	-	ND (10)	ND (1)	ND (1)	ND (10)	-	ND (1)	-	ND (1)
trans-1,2-Dichloroethene	-	25000	560	-	-	2000	-	-	-	-	ND (1)	ND (1)	-	-	**10**	**8.3**	**0.68 J**
trans-1,3-Dichloropropene	170	46000	1.9	-	29	-	-	-	-	-	ND (1)	ND (1)	-	-	-	ND (1) J	ND (1)
trans-1,4-Dichloro-2-butene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1 R	-	-
Trichloroethene	370	-	260	-	-	31	-	-	-	ND (15)	ND (1)	ND (1)	ND (15) J	-	**12**	**11**	**4.1**
Trichlorofluoromethane (CFC-11)	-	-	-	-	-	-	-	-	-	-	ND (1)	ND (1)	-	-	-	ND (1)	ND (1)
Trifluorotrichloroethane (Freon 113)	-	-	-	-	-	-	-	-	-	-	ND (1)	ND (1)	-	-	-	-	ND (1)
Vinyl acetate	-	-	248	-	-	100000	-	-	-	-	-	-	-	-	ND (2)	-	-
Vinyl chloride	14	4900	930	-	4	-	-	-	-	-	ND (1)	ND (1)	-	-	**220** [AE]	**92** [AE]	**0.31 J**
Xylene (total)	-	150000	35	-	-	20000	-	-	-	ND (17)	ND (2)	ND (2)	ND (17)	-	ND (1)	-	ND (2)

Notes:

1. Results in **bold** were detected.
2. Results in red exceed on or more of the site-specific criteria:
   [A] - Groundwater to Surface Water Discharge Exposure Pathway-Human Receptors-Tier 1A-Carcinogen
   [B] - Groundwater to Surface Water Discharge Exposure Pathway-Human Receptors-Tier 1A-Non-Carcinogen
   [C] - Groundwater to Surface Water Discharge Exposure Pathway-Ecological Receptors-Tier 1A
   [D] - Groundwater to Surface Water Discharge Exposure Pathway-Wildlife-Tier 1A
   [E] - Tier1A Exposure to Groundwater - Industrial Carcinogen
   [F] - Tier1A Exposure to Groundwater - Industrial Non-Carcinogen
   [G] - Tier 1B Default Screening Criteria
   [H] - Tier 1B Non-Default Screening Criteria
3. ND - Not detected above the reporting limit
   J - Estimated value
4. Sample Type Codes:
   N - Normal Sample
   FD - Field Duplicate
5. Data shown on table are the 2019 samples with the corresponding historical data.

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
ARCELORMITTAL - INDIANA HARBOR LONG CARBON
EAST CHICAGO, INDIANA

Location	Groundwater to Surface Water Discharge Exposure Pathway				Industrial/Commercial Exposure to Groundwater					IFW-02-00022	IFW-02-00022R	IFW-02-00022R	IFW-02-00018	IMW-02-00001R	IMW-02-00004S	IMW-02-00004S	IMW-02-00004S
Sample Date										04/21/1998	03/08/2019	03/08/2019	04/29/1998	03/07/2019	11/10/2008	06/10/2009	03/08/2019
Sample Type	Tier1A				Tier1A		Tier 1B			N	N	FD	N	N	N	N	N
Sample Name	Human Receptors Carcinogen	Human Receptors Non-Carcinogen	Ecological Receptors	Wildlife	Carcinogen	Non-Carcinogen	Human Screening Criteria	Non-Default Human Screening Criteria	Ecological Screening Criteria	IFW-02-00022-042198	IFW-02-00022R	9584-030819-0004	IFW-02-00018-042998	IMW-02-00001R	IMW-02-00004S-111008	IMW-02-00004S-061009	IMW-02-0004S

[I] - Tier 1B Default Screening Criteria Ecological

FIGURE

LEGEND

IMW-03-00010S — MONITORING WELL LOCATION

P-02B — MONITORING WELL ABANDONED

IFW-03-00038 — "FIRST WATER" SAMPLING LOCATION

SOIL BORINGS

FENCE LINE

PROPERTY LINE (APPROXIMATE)

UNPAVED AREAS

CLINE AVENUE BRIDGE, LLC PROPERTY

NOTES

1. PLAN BASED ON SURVEY AND BASE MAP ENTITLED "UTILITIES_BASE_IHE_2017_V2010.DWG" PROVIDED BY AECOM ON 24 AUGUST 2017.
2. LOCATIONS ARE APPROXIMATE

0 250 500

SCALE IN FEET

HALEY ALDRICH

ARCELORMITTAL INDIANA HARBOR LONG CARBON
EAST CHICAGO, INDIANA

SOIL BORING AND MONITORING WELL LOCATIONS

SCALE: AS SHOWN
APRIL 2019

FIGURE 1

O'BRIEN, JANET Printed: 1/18/2019 11:04 AM Layout: FIG 3
G:\129719 - ARCELORMITTAL INDIANA HARBOR RCRA CA\GLOBAL\CAD\129719_000_FIGX_R3.DWG

ATTACHMENT 1

Boring Logs

HALEY ALDRICH

TEST BORING REPORT

BORING NO. IFW-02-00022R

Page 1 of

PROJECT	Arcelor Mittal Long Carries	H&A FILE NO.	129719-009
LOCATION	East Chicago, IN	PROJECT MGR.	
CLIENT	Arcelor Mittal	FIELD REP.	
CONTRACTOR	Strata Earth Sciences, OLZ	DATE STARTED	
DRILLER	Jack Shaughnessy	DATE FINISHED	

Elevation — ft. Datum —

Boring Location See plan

PID Make / Model: Mini Rae 3000

Item	Casing	Sampler	Core Barrel
Type	HSA	S	—
Inside Diameter (in.)	4.25	1 3/8	—
Hammer Weight (lb.)	140	140	
Hammer Fall (in.)	30	30	

Rig Make & Model: ☑ Truck ☐ ATV ☐ Track ☐ Skid ☐ Tripod ☐ Geoprobe ☐ Air Track ☑ HSA ☐ Cat-Head ☑ Winch ☐ Roller Bit ☑ Cutting Head

Hammer Type: ☐ Safety ☐ Doughnut ☑ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☑ None

Casing Advance: Type Method Depth — Spun-Spun

Drilling Notes:

Depth (ft.) PID (ppm)	Sampler Blows per 6 in.	Sample No. & Recovery (in.)	Sample Depth (ft.)	Well Diagram	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Toughness	Plasticity	Strength
0 / 51.5		G1 9/2	0 / 2				Refusal at 3', slag + organic material down to 2.5', very strong petroleum odor										
50.1	44 37 27 18	G2 1.5/2	2 / 4		2.5'	SM	Dark brown to black, loose, silty sand with trace gravel, mps 10mm, strong petroleum odor, moist	5	5		10	60	20				
5 / 50.9	3 3 3 6	G3 1.75/2	4 / 6		5.0'	SM	loose, light brown to gray, silty sand, mps 3mm, strong petroleum odor, saturated				10	50	40				
71.2	7 11 10 9	G4 2/2	6 / 8				SAA										
70.4	6 12 11 11	G5 2/2	8 / 10				Bottom of borehole at 10' BGS										
10																	
15																	
20																	
25																	
30																	

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID: O Open End Rod; T Thin Wall Tube; U Undisturbed Sample; S Split Spoon Sample; G Geoprobe

Well Diagram: Riser Pipe; Screen; Filter Sand; Cuttings; Grout; Concrete; Bentonite Seal

Summary: Overburden (Linear ft.) ____ Rock Cored (Linear ft.) ____ Number of Samples ____

BORING NO.

Field Tests — Dilatancy: R - Rapid S - Slow N - None; Toughness: L - Low M - Medium H - High; Plasticity: N - Nonplastic L - Low M - Medium H - High; Dry Strength: N - None L - Low M - Meduim H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

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TEST BORING REPORT

BORING NO. IMW-02-00001R

Page 1 of

PROJECT	Arcelor Mittal Long Carbon	H&A FILE NO.	12719-009
LOCATION	East Chicago, IN	PROJECT MGR.	P. Stoniker
CLIENT	Arcelor Mittal	FIELD REP.	A. Quirk
CONTRACTOR	Stratum Earth Services, DLZ	DATE STARTED	3/7/19
DRILLER	Jesse Shaughnessy	DATE FINISHED	3/7/19

Elevation – ft. Datum –

Boring Location See plan

PID Make / Model: mini Rae 3000

Item	Casing	Sampler	Core Barrel
Type	HSA	S	–
Inside Diameter (in.)	4.25	1 3/8	–
Hammer Weight (lb.)	140	140	
Hammer Fall (in.)	30	30	

Rig Make & Model: ☑ Truck ☐ Tripod ☐ Cat-Head; ☐ ATV ☐ Geoprobe ☑ Winch; ☐ Track ☐ Air Track ☐ Roller Bit; ☐ Skid ☑ HSA ☑ Cutting Head

Hammer Type: ☐ Safety ☐ Doughnut ☑ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☑ None

Casing Advance: Type Method Depth: Split-Spoon

Drilling Notes:

Depth (ft.) PID (ppm)	Sampler Blows per 6 in.	Sample No. & Recovery (in.)	Sample Depth (ft.)	Well Diagram	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
0																	
.6		S1 0/2	0 2				Deposit at 5", slag material with some organic soil/material down to 2.5'; strong odor										
.8	49 49 18 16	S2 1.25/2	2 4		2.5'	SM	loose, dark brown to black, silty sand with trace gravel, mps 8mm, strong odor, moist	5	5		10	60	20				
0.0	5 12 15 13	S3 2/2	4 6	▽	4.5'		SAA, transition to light brown, saturated, no odor										
0.0	7 7 6 4	S4 2/2	6 8		6.0'	SM	loose, brown to light brown, silty sand, mps 2mm, no odor, saturated			5	10	60	25				
0.0	14 13 12 12	S5 2/2	8 10		8.0'	SM	loose, brown to light brown, silty sand with gravel, mps .15 mm, no odor, saturated	15	15			50	20				
10							bottom of borehole at 10' BGS										
15																	
20																	
25																	
30																	

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID: O Open End Rod; T Thin Wall Tube; U Undisturbed Sample; S Split Spoon Sample; G Geoprobe

Well Diagram: Riser Pipe; Screen; Filter Sand; Cuttings; Grout; Concrete; Bentonite Seal

Summary: Overburden (Linear ft.) ___; Rock Cored (Linear ft.) ___; Number of Samples ___

BORING NO.

Field Tests: Dilatancy: R - Rapid S - Slow N - None; Toughness: L - Low M - Medium H - High; Plasticity: N - Nonplastic L - Low M - Medium H - High; Dry Strength: N - None L - Low M - Meduim H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

Form 2001 USCS p1

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TEST BORING REPORT

BORING NO. SB-01

Page 1 of

PROJECT	Arconic Mitchell Long Comm	H&A FILE NO.	129719-004
LOCATION	East Chicago, IN	PROJECT MGR.	P. Stenier
CLIENT	Arconic Mitchell	FIELD REP.	M. Quick
CONTRACTOR	Strata Earth Services, LLC	DATE STARTED	3/5/19
DRILLER	John Strangeway	DATE FINISHED	3/5/19

Elevation — ft. Datum —

Boring Location See plan

PID Make / Model: Mini Rae 3000

Item	Casing	Sampler	Core Barrel
Type	HSA	S	
Inside Diameter (in.)	4.25	1 3/8	
Hammer Weight (lb.)	140	140	
Hammer Fall (in.)	30	30	

Rig Make & Model: ☑ Truck ☐ Tripod ☐ Cat-Head; ☐ ATV ☐ Geoprobe ☑ Winch; ☐ Track ☐ Air Track ☐ Roller Bit; ☐ Skid ☑ HSA ☑ Cutting Head

Hammer Type: ☐ Safety ☐ Doughnut ☑ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☑ None

Casing Advance: Type Method Depth — Split-Spoon

Drilling Notes:

Depth (ft.) PID (ppm)	Sampler Blows per 6 in.	Sample No. & Recovery (in.)	Sample Depth (ft.)	Well Diagram	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
0																	
0.9		61 0/2	0				Refusal at 6", 4' of slag material + some organic soil/material, strong odor										
			2														
0.2		62 0/2	2														
			4		4.0'												
0.1	47 31 26 23	63 1.5/2	4			SP-SM	loose, light brown, poorly graded sand with silt and gravel, mps 25mm, no odor, moist	10	5		15	60	10				
5			6														
0.3	27 15 12 14	64 1.5/2	6	▼	7.0'												
			8			SM	loose, light brown, silty sand with trace gravel, mps 5mm, no odor, saturated		5		10	60	25				
0.0	12 7 8 3	65 1.5/2	8														
10			10				Bottom of borehole at 10' BGS										
15																	
20																	
25																	
30																	

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (Linear ft.)
Rock Cored (Linear ft.)
Number of Samples

BORING NO.

Field Tests Dilatancy: R - Rapid S - Slow N - None Toughness: L - Low M - Medium H - High

Plasticity: N - Nonplastic L - Low M - Medium H - High Dry Strength: N - None L - Low M - Meduim H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

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TEST BORING REPORT

BORING NO. SB-02

Page 1 of

PROJECT	ArcelorMittal Long Carbon	H&A FILE NO.	129719-009
LOCATION	East Chicago, IN	PROJECT MGR.	P. Spencer
CLIENT	ArcelorMittal	FIELD REP.	A. Quirke
CONTRACTOR	Stratus Earth Services, DLZ	DATE STARTED	3/5/19
DRILLER	Jake Shaughnessy	DATE FINISHED	3/15/19

Elevation — ft. Datum —

Boring Location See Plan

PID Make / Model: Mini Rae 3000

Item	Casing	Sampler	Core Barrel
Type	HSA	S	
Inside Diameter (in.)	4.25	1.1/8	
Hammer Weight (lb.)	140	140	
Hammer Fall (in.)	30	30	

Rig Make & Model: ☑ Truck ☐ ATV ☐ Track ☐ Skid ☐ Tripod ☐ Geoprobe ☐ Air Track ☑ HSA ☐ Cat-Head ☑ Winch ☐ Roller Bit ☑ Cutting Head

Hammer Type: ☐ Safety ☐ Doughnut ☑ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☑ None

Casing Advance Type Method Depth: Split Spoons

Drilling Notes:

Depth (ft.) PID (ppm)	Sampler Blows per 6 in.	Sample No. & Recovery (in.)	Sample Depth (ft.)	Well Diagram	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Toughness	Plasticity	Strength
0 1.4		61 0/2	0 2		2.0'		Refusal at 6", 2' of slag + organic material, strong odor										
0.0	25 36 19 15	62 1.5/2	2 4			SP-SM	loose, dark brown, poorly graded sand with silt, some trace gravel, mps 3mm, no odor, moist		5	5	10	70	10				
0.50	10 14 18 19	63 1.5/2	4 6		5.0'	SM	loose, light brown, silty sand with trace gravel, mps ¼ mm, no odor, moist		5	5	10	60	20				
0.0	5 12 12 13	64 1.5/2	6 8	✓	8.0'												
0.0	11 9 8 7	65 1.5/2	8 10			SM	loose, brown, silty sand with gravel, mps 15mm, no odor, saturated		15		10	50	25				
10							Bottom of borehole at 10' BGS										
15																	
20																	
25																	
30																	

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (Linear ft.)
Rock Cored (Linear ft.)
Number of Samples

BORING NO.

Field Tests

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Meduim H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

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TEST BORING REPORT

BORING NO. SB-03

Page 1 of

PROJECT	Arcelor Mittal Long Carbon	H&A FILE NO.	129719-009
LOCATION	East Chicago, IN	PROJECT MGR.	P. Stenick
CLIENT	Arcelor Mittal	FIELD REP.	K. Quinn
CONTRACTOR	Streeter Earth Services, DLZ	DATE STARTED	3/5/19
DRILLER	Jake Stawarczyk	DATE FINISHED	3/5/19

Elevation — ft. Datum —

Boring Location See plan

PID Make / Model: Mini Rae 3000

Item	Casing	Sampler	Core Barrel
Type	HSA	S	—
Inside Diameter (in.)	4.25	1 3/8	—
Hammer Weight (lb.)	140	140	
Hammer Fall (in.)	30	30	

Rig Make & Model: ☑ Truck ☐ Tripod ☐ Cat-Head; ☐ ATV ☐ Geoprobe ☑ Winch; ☐ Track ☐ Air Track ☐ Roller Bit; ☐ Skid ☑ HSA ☑ Cutting Head

Hammer Type: ☐ Safety ☐ Doughnut ☑ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☑ None

Casing Advance: Type Method Depth — Split Spoon

Drilling Notes:

Depth (ft.) PID (ppm)	Sampler Blows per 6 in.	Sample No. & Recovery (in.)	Sample Depth (ft.)	Well Diagram	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Toughness	Plasticity	Strength
0		G1 0/2	0				Refusal at 2", 3.5' of slag + some organic soil/material, slight odor										
2			2														
0.0	49 42 12 16	G2 1.5/2	2		3.5'												
			4			Sp-Sm	Loose, brown, poorly graded sand with silt, few trace gravel, mps 4mm, no odor, moist		5	5	10	70	10				
0.0 5	7 9 8 8	G3 1.5/2	4														
			6		6.0'												
0.2	4 9 7 6	G4 2/2	6			SM	Loose, light brown, silty sand with trace gravel, mps 15mm, no odor, moist	10		10	60	20					
			8		8.0'												
0.0	7 8 6 5	G5 1.5/2	8			SM	SAA, saturated at roughly 8'	10		10	60	20					
			10				Bottom of Borehole at 10' BGS										
10																	
15																	
20																	
25																	
30																	

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID: O Open End Rod; T Thin Wall Tube; U Undisturbed Sample; S Split Spoon Sample; G Geoprobe

Well Diagram: Riser Pipe; Screen; Filter Sand; Cuttings; Grout; Concrete; Bentonite Seal

Summary: Overburden (Linear ft.) ____ Rock Cored (Linear ft.) ____ Number of Samples ____

BORING NO.

Field Tests — Dilatancy: R - Rapid S - Slow N - None; Toughness: L - Low M - Medium H - High; Plasticity: N - Nonplastic L - Low M - Medium H - High; Dry Strength: N - None L - Low M - Meduim H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

HALEY ALDRICH

TEST BORING REPORT

BORING NO. SB-04

Page 1 of

PROJECT	ArcelorMittal Long Work	H&A FILE NO.	129719-009
LOCATION	East Chicago, IN	PROJECT MGR.	P. Stanier
CLIENT	ArcelorMittal	FIELD REP.	M. Quirk
CONTRACTOR	Strata Earth Services, LLC	DATE STARTED	3/5/19
DRILLER	James Hungarsky	DATE FINISHED	3/5/19

Elevation — ft. Datum —

Boring Location See PKM

PID Make / Model: MiniRae 3000

Item	Casing	Sampler	Core Barrel
Type	HSA	S	
Inside Diameter (in.)	4.25	1 3/8	
Hammer Weight (lb.)	140	140	
Hammer Fall (in.)	30	30	

Rig Make & Model: ☑ Truck ☐ ATV ☐ Track ☐ Skid ☐ Tripod ☐ Geoprobe ☐ Air Track ☑ HSA ☐ Cat-Head ☑ Winch ☐ Roller Bit ☑ Cutting Head

Hammer Type: ☐ Safety ☐ Doughnut ☑ Automatic

Drilling Mud: ☑ Bentonite ☐ Polymer ☑ None

Casing Advance Type Method Depth: Split Spoon

Drilling Notes:

Depth (ft.)	Sampler Blows per 6 in.	Sample No. & Recovery (in.)	Sample Depth (ft.)	Well Diagram	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Toughness	Plasticity	Strength
0	38 49 49 45	61 2/2	0 2				Slag material + some organic soil/material down to 2.5', slight odor										
.2	12 26 21 31	62 1.0/2	2 4		2.5'	SM	loose, dark brown, silty sand with some trace gravel, mps 10 mm, no odor, moist	5	5		10	60	20				
0.1	8 21 24 18	63 1.0/2	4 6		4.0'	SM	loose, light brown, silty sand with some trace gravel, mps 8mm, no odor, moist		5		10	60	25				
0.0	8 8 8 7	64 1.0/2	6 8		8.0'		* Refusal at 6', borehole offset 10' SE										
0.2	9 8 6 3	65 1.5/2	8 10	∀		SM	Silt, saturated at 8'		5		10	60	25				
10							Bottom of Borehole at 10' BGS										
15																	
20																	
25																	
30																	

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (Linear ft.)
Rock Cored (Linear ft.)
Number of Samples

BORING NO.

Field Tests

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Meduim H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

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TEST BORING REPORT

BORING NO. SB-05

Page 1 of

PROJECT	ArcelorMittal Long Carbon	H&A FILE NO.	122719-009
LOCATION	East Chicago, IN	PROJECT MGR.	P. Stenger
CLIENT	ArcelorMittal	FIELD REP.	A. Quirk
CONTRACTOR	Strata Earth Services, LLC	DATE STARTED	3/6/19
DRILLER	Jake Shengrosky	DATE FINISHED	3/6/19

Elevation — ft. Datum —

Boring Location See plan

PID Make / Model: MiniRae 3000

Item	Casing	Sampler	Core Barrel
Type	HSA	S	
Inside Diameter (in.)	4.25	1 3/8	
Hammer Weight (lb.)	140	140	
Hammer Fall (in.)	30	30	

Rig Make & Model: ☑ Truck ☐ ATV ☐ Track ☐ Skid ☐ Tripod ☐ Geoprobe ☐ Air Track ☑ HSA ☐ Cat-Head ☑ Winch ☐ Roller Bit ☑ Cutting Head

Hammer Type: ☐ Safety ☐ Doughnut ☑ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☑ None

Casing Advance: Type Method Depth — Split spoon

Drilling Notes:

Depth (ft.)	Sampler Blows per 6 in.	Sample No. & Recovery (in.)	Sample Depth (ft.)	Well Diagram	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
0		61	0				Reposal up 4", 3' up slag + some aggregate										
0.4		0/2	2				Soil/material, slight odor										
	8 65 25 21	62 1/2	2 4		3.0'												
0.1						SM	loose, light brown, silty sand with some trace gravel, mps 5mm, slight odor, moist		5	5	10	60	20				
0.1	11 11 11 9	63 1.5/2	4 6														
5																	
0.2	8 14 15 15	64 1.5/2	6 8				SAA, transition to slightly darker brown										
0.0	6 11 13 12	65 2/2	8 10		8.5'	SM	loose, light brown to dark brown, silty sand, mps 2mm, no odor, saturated			5	10	60	25				
10							Bottom of borehole at 10' BGS										
15																	
20																	
25																	
30																	

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (Linear ft.)
Rock Cored (Linear ft.)
Number of Samples

BORING NO.

Field Tests

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Meduim H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

HALEY ALDRICH

TEST BORING REPORT

BORING NO. SB-06

Page 1 of

PROJECT	Arcelor Mittal Long Carbon	H&A FILE NO.	127719-009
LOCATION	East Chicago, IN	PROJECT MGR.	P. Stanier
CLIENT	Arcelor Mittal	FIELD REP.	A. Burke
CONTRACTOR	Strata Earth Services, DLZ	DATE STARTED	3/6/19
DRILLER	Jake Shaughnessy	DATE FINISHED	3/6/19

Elevation — ft. Datum —

Boring Location See Plan

PID Make / Model: MiniRae 3000

Item	Casing	Sampler	Core Barrel
Type	HSA	S	—
Inside Diameter (in.)	4.25	1 3/8	—
Hammer Weight (lb.)	140	140	
Hammer Fall (in.)	30	30	

Rig Make & Model: ☑ Truck ☐ Tripod ☐ Cat-Head; ☐ ATV ☐ Geoprobe ☑ Winch; ☐ Track ☐ Air Track ☐ Roller Bit; ☐ Skid ☑ HSA ☑ Cutting Head

Hammer Type: ☐ Safety ☐ Doughnut ☑ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☑ None

Casing Advance: Type Method Depth — Split Spoon

Drilling Notes:

Depth (ft.) PID (ppm)	Sampler Blows per 6 in.	Sample No. & Recovery (in.)	Sample Depth (ft.)	Well Diagram	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
0																	
0.1		61 2/2	0 2		2.0'		Refusal at 3", Stay down to roughly 2', No odor, Some organic material/soil										
0.0	25 22 18 16	62 1.75/2	2 4			SP-SM	loose, light brown to dark brown, Poorly graded Sand with silt, mps - 2mm, no odor, moist				20	70	10				
0.0	5 10 13 13	63 1.5/2	4 6	▽	4.5' 6.0'	—	SAA, Saturated at 4.5'										
0.0	4 4 7 11	64 2/2	6 8			SM	loose, light brown, Silty sand, mps - 2mm, no odor, Saturated				10	70	20				
0.0	10 8 9 4	65 2/2	8 10			SM	loose, light brown, silty sand with gravel mps 10 mm, no odor, Saturated	15	5		10	50	20				
10							Bottom of Borehole at 10' BGS										
15																	
20																	
25																	
30																	

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (Linear ft.)
Rock Cored (Linear ft.)
Number of Samples

BORING NO.

Field Tests

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Meduim H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

HALEY ALDRICH

TEST BORING REPORT

BORING NO. SB-07

Page 1 of

PROJECT	ArcelorMittal Long Carbon	H&A FILE NO.	120719-009A
LOCATION	East Chicago, IN	PROJECT MGR.	P. Stauber
CLIENT	ArcelorMittal	FIELD REP.	A. Quilk
CONTRACTOR	Strata Earth Services, DLZ	DATE STARTED	3/6/19
DRILLER	Jake Shaughnessy	DATE FINISHED	3/6/19

Elevation — ft. Datum —

Boring Location Sa p2m

PID Make / Model: MiniRae 3000

Item	Casing	Sampler	Core Barrel
Type	HSA	S	—
Inside Diameter (in.)	4.25	1.75	—
Hammer Weight (lb.)	140	140	
Hammer Fall (in.)	30	30	

Rig Make & Model: ☑ Truck ☐ Tripod ☐ Cat-Head; ☐ ATV ☐ Geoprobe ☑ Winch; ☐ Track ☐ Air Track ☐ Roller Bit; ☐ Skid ☑ HSA ☑ Cutting Head

Hammer Type: ☐ Safety ☐ Doughnut ☑ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☑ None

Casing Advance: Type Method Depth — Split Spoon

Drilling Notes:

Depth (ft.) PID(ppm)	Sampler Blows per 6 in.	Sample No. & Recovery (in.)	Sample Depth (ft.)	Well Diagram	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
0																	
0.4		S1 0/2	0 2				Slag material down to 2.5'. Refusal at 2'', some organic soil/material mixed in with the slag, slight odor										
0.0	25 19 18 17	S2 1.5/2	2 4		2.5'	SM	loose, dark brown, silty sand with trace gravel, mps 10mm, no odor, moist	5	5			70	20				
0.0	13 15 17 15	S3 1.75/2	4 6		6.0'		SAA, transition to a lighter brown										
0.0	5 7 6 3	S4 1.75/2	6 8			SM	loose, light brown, silty sand with gravel mps 10mm, no odor, saturated	10	10			60	20				
0.0	6 7 11 12	S5 2/2	8 10				SAA										
10							Bottom of borehole at 10'										
15																	
20																	
25																	
30																	

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (Linear ft.)
Rock Cored (Linear ft.)
Number of Samples

BORING NO.

Field Tests

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Meduim H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

HALEY ALDRICH

TEST BORING REPORT

BORING NO. SB-08

Page 1 of

PROJECT	ArcelorMittal Long Carbon	H&A FILE NO.	129719-009
LOCATION	East Chicago, IN	PROJECT MGR.	P. Stanier
CLIENT	ArcelorMittal	FIELD REP.	A. Quicle
CONTRACTOR	Strata Earth Services, DLR	DATE STARTED	3/4/19
DRILLER	Steve Shaughnessy	DATE FINISHED	3/7/19

Elevation – ft. Datum –

Boring Location See plan

PID Make / Model: MultiRae 3000

Item	Casing	Sampler	Core Barrel
Type	HSA	S	–
Inside Diameter (in.)	4.25	1 1/8	–
Hammer Weight (lb.)	140	140	
Hammer Fall (in.)	30	30	

Rig Make & Model: ☑ Truck ☐ ATV ☐ Track ☐ Skid ☐ Tripod ☐ Geoprobe ☐ Air Track ☑ HSA ☐ Cat-Head ☑ Winch ☐ Roller Bit ☑ Cutting Head

Hammer Type: ☐ Safety ☐ Doughnut ☑ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☑ None

Casing Advance Type Method Depth: Split-Spoon

Drilling Notes:

Depth (ft.) PID (ppm)	Sampler Blows per 6 in.	Sample No. & Recovery (in.)	Sample Depth (ft.)	Well Diagram	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Toughness	Plasticity	Strength
0		G1	0				Refusal at 5", stay material down to 2.5', some organic soil/material in with the slag, strong odor										
.6		2/2	2														
	4T 49 18 16	G2	2		2.5'												
.8		1.75/2	4			SM	loose, dark brown to black, silty sand with trace gravel, mps 8mm, strong odor, moist	5	5		10	60	20				
	5 12 15 13	G3 2/2	4		4.5'		SAA, transition to light brown, saturated, no odor										
5 0.0			6		6'												
	7 7 6 11	G4 2/2	6			SM	loose, brown to light brown, silty sand, mps 2mm, no odor, saturated			5	10	60	25				
0.0			8		8'												
	14 13 12 12	G5 2/2	8			SM	loose, brown to light brown, silty sand with gravel, mps 15mm, no odor, saturated	15	15			50	20				
10			10				Bottom of borehole at 10' BGS										
15																	
20																	
25																	
30																	

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID: O Open End Rod; T Thin Wall Tube; U Undisturbed Sample; S Split Spoon Sample; G Geoprobe

Well Diagram: Riser Pipe; Screen; Filter Sand; Cuttings; Grout; Concrete; Bentonite Seal

Summary: Overburden (Linear ft.) ; Rock Cored (Linear ft.) ; Number of Samples ; BORING NO.

Field Tests — Dilatancy: R - Rapid S - Slow N - None; Toughness: L - Low M - Medium H - High; Plasticity: N - Nonplastic L - Low M - Medium H - High; Dry Strength: N - None L - Low M - Meduim H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

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TEST BORING REPORT

BORING NO. SB-09

Page 1 of

PROJECT	Arcelor Mittal Long Carbon	H&A FILE NO.	129719-009
LOCATION	East Chicago, IN	PROJECT MGR.	P. Stanier
CLIENT	Arcelor Mittal	FIELD REP.	A. Quick
CONTRACTOR	Strata Earth Services, OLZ	DATE STARTED	3/6/19
DRILLER	Jake Shaughnessy	DATE FINISHED	3/6/19

Elevation — ft. Datum —

Boring Location Scupion

PID Make / Model: MiniRae 3000

Item	Casing	Sampler	Core Barrel
Type	HSA	S	—
Inside Diameter (in.)	4.25	1 3/8	—
Hammer Weight (lb.)	140	140	
Hammer Fall (in.)	30	30	

Rig Make & Model: ☑ Truck ☐ ATV ☐ Track ☐ Skid ☐ Tripod ☐ Geoprobe ☐ Air Track ☑ HSA ☐ Cat-Head ☑ Winch ☐ Roller Bit ☑ Cutting Head

Hammer Type: ☐ Safety ☐ Doughnut ☑ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☑ None

Casing Advance: Type Method Depth — Spun Stem

Drilling Notes:

Depth (ft.) (PID ppm)	Sampler Blows per 6 in.	Sample No. & Recovery (in.)	Sample Depth (ft.)	Well Diagram	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Toughness	Plasticity	Strength
0																	
1.4		G1 1/2	0 2				Burn Reason at 3', Slag material down to 3', Strong odor, Some organic soil/material mixed in with the slag										
.3	20 12 17 23	G2 1/2	2 4		3.0'	SM	loose, Dark brown to black, Silty Sand, mps 2 mm, Slight odor, moist				10	60	30				
1.8	6 12 9 3	G3 1/2	4 6		5.0'	SM	loose, light brown, Silty Sand with gravel, mps 8mm, Strong odor, Saturated	5	10		5	55	25				
0.0	6 9 12 7	G4 1/2	6 8														
0.0	8 15 15 16	G5 2/2	8 10			SM	loose, light brown to gray, Silty Sand with gravel, mps 10mm, no odor, Saturated	10	10			60	30				
10							Bottom of borehole at 10' BGS										
15																	
20																	
25																	
30																	

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (Linear ft.)
Rock Cored (Linear ft.)
Number of Samples

BORING NO.

Field Tests

Dilatancy: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Meduim H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

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TEST BORING REPORT

BORING NO. SB-10

Page 1 of

PROJECT	ArcelorMittal Long Carbon	H&A FILE NO.	129219-009
LOCATION	East Chicago, IN	PROJECT MGR.	P. Stanier
CLIENT	ArcelorMittal	FIELD REP.	A. Quirk
CONTRACTOR	Strata Earth Services	DATE STARTED	3/6/19
DRILLER	Jake Shaughnessy	DATE FINISHED	3/6/19

Elevation ft. Datum

Boring Location

PID Make / Model: MiniRae 3000

Item	Casing	Sampler	Core Barrel
Type	HSA	S	—
Inside Diameter (in.)	4.25	1 3/8	—
Hammer Weight (lb.)	140	140	
Hammer Fall (in.)	30	30	

Rig Make & Model: ☑ Truck ☐ Tripod ☐ Cat-Head; ☐ ATV ☐ Geoprobe ☑ Winch; ☐ Track ☐ Air Track ☐ Roller Bit; ☐ Skid ☑ HSA ☑ Cutting Head

Hammer Type: ☐ Safety ☐ Doughnut ☑ Automatic

Drilling Mud: ☐ Bentonite ☐ Polymer ☑ None

Casing Advance: Type Method Depth — Split Spoon

Drilling Notes:

Depth (ft.) PID (PPM)	Sampler Blows per 6 in.	Sample No. & Recovery (in.)	Sample Depth (ft.)	Well Diagram	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
0																	
0.0	45 27 13 11	G1 2/2	0 2		1.0		1' of slag with some organic soil and fill materials, no odor										
0.0	7 12 15 16	G2 1.5/2	2 4			SP-SM	loose, dark brown sand with silt and trace gravel, mps 10mm, no odor, moist, seems to have some small fragments of slag in with the sand.	10		5	5	70	10				
0.0 5	7 7 7 7	G3 2/2	4 6		5.0	SM	SAA										
0.0	10 13 15 17	G4 2/2	6 8				loose, light brown sand with silt, mps 3mm, no odor, moist, small fragments of slag in the soil	5	15	60	20						
0.0 10	6 10 13 11	G5 2/2	8 10				SAA, saturated at 6'										
							SAA, hit a pocket of slag and fill from roughly 8.5-9.5! Some darker brown coloration mixed in with the light brown from above.	5	15	60	20						
15																	
20																	
25																	
30																	

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth in feet to: Bottom of Casing	Bottom of Hole	Water

Sample ID: O Open End Rod; T Thin Wall Tube; U Undisturbed Sample; S Split Spoon Sample; G Geoprobe

Well Diagram: Riser Pipe; Screen; Filter Sand; Cuttings; Grout; Concrete; Bentonite Seal

Summary: Overburden (Linear ft.); Rock Cored (Linear ft.); Number of Samples

BORING NO.

Field Tests — Dilatancy: R - Rapid S - Slow N - None; Toughness: L - Low M - Medium H - High; Plasticity: N - Nonplastic L - Low M - Medium H - High; Dry Strength: N - None L - Low M - Meduim H - High V - Very High

*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.

NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

ATTACHMENT 2

Laboratory Report

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-109180-1
Client Project/Site: Indiana Harbor (IHLC)
Revision: 2

For:
ArcelorMittal USA Inc.
4020 Kinross Lakes Parkway
Richfield, Ohio 44286

Attn: Cary Mathias

Authorized for release by:
4/11/2019 5:26:20 PM

John McFadden, Project Manager I
(330)497-9396
john.mcfadden@testamericainc.com

LINKS

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Have a Question? Ask The Expert

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
F4	MS/MSD RPD exceeds control limits due to sample size difference.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 240-109180-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

CASE NARRATIVE

Client: ArcelorMittal USA Inc.

Project: Indiana Harbor (IHLC)

Report Number: 240-109180-1
Revised

Revised 4/8/2019. Per client request Naphthalene was reported by method 8260C.

Revised 4/11/2019. Per client request Iron was reported by method 6010B.

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RELEASED
9/3/20 – 2020-006446
TJW

RECEIPT
The samples were received on 3/9/2019 9:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 0.6º C, 0.8º C, 1.0º C, 1.6º C and 1.8º C.

The DI water terra cores were received past the 48 hour freezing hold time. The client was notified and the laboratory was instructed by the client to proceed with the methanol preserved terra cores for the VOC analysis.

VOLATILE ORGANIC COMPOUNDS (GCMS)
Samples SB01-0-2 (240-109180-1), SB01-5-7 (240-109180-2), SB02-0-2 (240-109180-3), SB02-6-8 (240-109180-4), SB03-0-2 (240-109180-5), SB03-6-8 (240-109180-6), 9584-030519-0001 (240-109180-7), SB04-0-2 (240-109180-8), SB04-6-8 (240-109180-9), SB05-0-2 (240-109180-10), SB05-6-8 (240-109180-11), 9584-030619-0002 (240-109180-14), SB06-0-2 (240-109180-15), SB06-2-4 (240-109180-16), SB07-0-2 (240-109180-17), SB07-4-6 (240-109180-18), SB09-0-2 (240-109180-19), SB09-3-5 (240-109180-20), SB10-0-2 (240-109180-21), SB10-4-6 (240-109180-22), SB08-0-2 (240-109180-23) and SB08-2-4 (240-109180-24) were analyzed for

Job ID: 240-109180-1 (Continued)

Laboratory: Eurofins TestAmerica, Canton (Continued)

volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were prepared on 03/13/2019 and analyzed on 03/14/2019 and 03/15/2019.

The following samples were received in pre-weighed containers with a label that was added in the field, which would cause a slight low bias in the final results. SB01-0-2 (240-109180-1), SB01-5-7 (240-109180-2), SB02-0-2 (240-109180-3), SB02-6-8 (240-109180-4), SB03-0-2 (240-109180-5), SB03-6-8 (240-109180-6), 9584-030519-0001 (240-109180-7), SB04-0-2 (240-109180-8), SB04-6-8 (240-109180-9), SB04-6-8 (240-109180-9[DU]), SB04-6-8 (240-109180-9[MS]), SB04-6-8 (240-109180-9[MSD]), SB05-0-2 (240-109180-10), SB05-0-2 (240-109180-10[DU]), SB05-0-2 (240-109180-10[MS]), SB05-0-2 (240-109180-10[MSD]), SB05-6-8 (240-109180-11), 9584-030619-0002 (240-109180-14), SB06-0-2 (240-109180-15), SB06-2-4 (240-109180-16), SB07-0-2 (240-109180-17), SB07-4-6 (240-109180-18), SB09-0-2 (240-109180-19), SB09-3-5 (240-109180-20), SB10-0-2 (240-109180-21), SB10-4-6 (240-109180-22), SB08-0-2 (240-109180-23) and SB08-2-4 (240-109180-24).

The methanol preserved terra core 109180-A-22 was received dry and is not usable. Sample 109180-E-22 was prepped from a bulk jar that was taken from the sample receiving refrigerator, if this jar was opened in another part of the lab it could have been contaminated. SB10-4-6 (240-109180-22)

The continuing calibration verification (CCV) analyzed in batch 240-371479 was outside the method criteria for the following analytes: cis-1,3-Dichloropropene; Methyl tert-butyl ether and trans-1,3-Dichloropropene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes are considered estimated.

The continuing calibration verification (CCV) associated with batch 240-371671 recovered above the upper control limit for: 1,1,2-Trichloro-1,2,2-trifluoroethane; 1,1-Dichloroethene; Chloroethane; Cyclohexane; Isopropylbenzene; Tetrachloroethene; Trichlorofluoromethane and Vinyl chloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The continuing calibration verification (CCV) analyzed in batch 240-371671 was outside the method criteria for the following analytes: Bromoform; cis-1,3-Dichloropropene and trans-1,3-Dichloropropene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes are considered estimated.

The continuing calibration verification (CCV) analyzed in batch 240-371803 was outside the method criteria for the following analyte: Methyl Acetate. An MRL standard at or below the reporting limit (RL) was analyzed with the affected samples SB05-0-2 (240-109180-10), SB05-0-2 (240-109180-10[MS]), SB05-0-2 (240-109180-10[MSD]), SB08-0-2 (240-109180-23), SB08-2-4 (240-109180-24), (CCV 240-371803/4) and (CCVIS 240-371803/3) and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

The laboratory control sample (LCS) for preparation batch 240-371418, 240-371418 and 240-371418 and analytical batch 240-371479 recovered outside acceptance limits for: 1,2-Dibromo-3-Chloropropane; Chlorodibromomethane; cis-1,3-Dichloropropene; Ethylene Dibromide and trans-1,3-Dichloropropene. There was insufficient sample to perform a re-extraction or re-analysis; therefore, the data have been reported.

The laboratory control sample (LCS) for preparation batch 240-371452 and 240-371452 and analytical batch 240-371671 recovered outside acceptance limits for: 1,1,1-Trichloroethane; 1,2-Dibromo-3-Chloropropane; Bromoform; Carbon tetrachloride; Chlorodibromomethane; cis-1,3-Dichloropropene; Ethylene Dibromide and trans-1,3-Dichloropropene. There was insufficient sample to perform a re-extraction or re-analysis; therefore, the data have been reported.

The laboratory control sample (LCS) for preparation batch 240-371452 and analytical batch 240-371803 recovered outside acceptance limits for Carbon Tetrachloride, cis-1,3-Dichloropropene, trans-1,3-Dichloropropene, Chlorodibromomethane, Ethylene Dibromide, Bromoform, 1,2-Dibromo-3-Chloropropane, and 1,1,1-Trichloroethane. There was insufficient sample to perform a re-extraction or re-analysis; therefore, the data SB05-0-2 (240-109180-10), SB05-0-2 (240-109180-10[MS]), SB05-0-2 (240-109180-10[MSD]), SB08-0-2 (240-109180-23) and SB08-2-4 (240-109180-24) have been reported.

A MS/MSD was prepared for batch 240-371452, but was analyzed in a different analytical batch. The batch included the following samples: SB04-0-2 (240-109180-8), SB05-6-8 (240-109180-11), 9584-030619-0002 (240-109180-14), SB06-0-2 (240-109180-15), SB06-2-4

Job ID: 240-109180-1 (Continued)

Laboratory: Eurofins TestAmerica, Canton (Continued)

(240-109180-16), SB07-0-2 (240-109180-17), SB07-4-6 (240-109180-18), SB09-0-2 (240-109180-19), SB09-3-5 (240-109180-20), SB10-0-2 (240-109180-21) and SB10-4-6 (240-109180-22)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples RINSE BLANK 1 (240-109180-12), RINSE BLANK 2 (240-109180-13), IFW-02-00022R (240-109180-27), 9584-030819-0004 (240-109180-28), IMW-02-0004S (240-109180-29) and TRIP BLANK 1 (240-109180-30) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 03/14/2019 and 03/15/2019.

The continuing calibration verification (CCV) associated with batch 240-371647 recovered above the upper control limit for some analytes. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: RINSE BLANK 1 (240-109180-12), RINSE BLANK 2 (240-109180-13), TRIP BLANK 1 (240-109180-30) and (CCVIS 240-371647/4).

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 240-371647.

The continuing calibration verification (CCV) analyzed in batch 240-371838 was outside the method criteria for difluorodichloromethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples SB01-0-2 (240-109180-1), SB01-5-7 (240-109180-2), SB02-0-2 (240-109180-3), SB02-6-8 (240-109180-4), SB03-0-2 (240-109180-5), SB03-6-8 (240-109180-6), 9584-030519-0001 (240-109180-7), SB04-0-2 (240-109180-8), SB04-6-8 (240-109180-9), SB05-0-2 (240-109180-10), SB05-6-8 (240-109180-11), 9584-030619-0002 (240-109180-14), SB06-0-2 (240-109180-15), SB06-2-4 (240-109180-16), SB07-0-2 (240-109180-17), SB07-4-6 (240-109180-18), SB09-0-2 (240-109180-19), SB09-3-5 (240-109180-20), SB10-0-2 (240-109180-21), SB10-4-6 (240-109180-22), SB08-0-2 (240-109180-23) and SB08-2-4 (240-109180-24) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 03/11/2019, 03/12/2019 and 03/16/2019 and analyzed on 03/14/2019, 03/18/2019 and 03/19/2019.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Samples SB01-0-2 (240-109180-1)[5X], 9584-030519-0001 (240-109180-7)[5X], SB05-0-2 (240-109180-10)[2X], SB06-0-2 (240-109180-15)[4X], SB07-0-2 (240-109180-17)[2X], SB09-0-2 (240-109180-19)[2X], SB10-0-2 (240-109180-21)[2.5X] and SB08-0-2 (240-109180-23)[2.5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The following samples were diluted due to the nature of the sample matrix: SB01-0-2 (240-109180-1), 9584-030519-0001 (240-109180-7), (240-109180-E-7-B MS), (240-109180-E-7-C MSD), SB10-0-2 (240-109180-21) and SB08-0-2 (240-109180-23). Elevated reporting limits (RLs) are provided.

Spike compounds were inadvertently omitted during the extraction process for the matrix spike/matrix spike duplicate (MS/MSD); therefore, matrix spike recoveries are unavailable for preparation batch 240-371871. The associated laboratory control sample (LCS) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples RINSE BLANK 1 (240-109180-12) and RINSE BLANK 2 (240-109180-13) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 03/11/2019 and analyzed on 03/18/2019.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and

Job ID: 240-109180-1 (Continued)

Laboratory: Eurofins TestAmerica, Canton (Continued)

no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-371076.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL METALS (ICP)
Samples SB01-0-2 (240-109180-1), SB01-5-7 (240-109180-2), SB02-0-2 (240-109180-3), SB02-6-8 (240-109180-4), SB03-0-2 (240-109180-5), SB03-6-8 (240-109180-6), 9584-030519-0001 (240-109180-7), SB04-0-2 (240-109180-8), SB04-6-8 (240-109180-9), SB05-0-2 (240-109180-10), SB05-6-8 (240-109180-11), 9584-030619-0002 (240-109180-14), SB06-0-2 (240-109180-15), SB06-2-4 (240-109180-16), SB07-0-2 (240-109180-17), SB07-4-6 (240-109180-18), SB09-0-2 (240-109180-19), SB09-3-5 (240-109180-20), SB10-0-2 (240-109180-21), SB10-4-6 (240-109180-22), SB08-0-2 (240-109180-23) and SB08-2-4 (240-109180-24) were analyzed for total metals (ICP) in accordance with EPA SW-846 Method 6010B. The samples were prepared on 03/11/2019 and analyzed on 03/12/2019, 03/13/2019, 03/14/2019 and 03/15/2019.

Manganese and Silver were detected in method blank MB 240-371014/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Samples SB01-0-2 (240-109180-1)[5X], SB02-0-2 (240-109180-3)[5X], SB03-0-2 (240-109180-5)[5X], 9584-030519-0001 (240-109180-7)[20X], SB04-0-2 (240-109180-8)[2X], SB04-0-2 (240-109180-8)[20X], SB05-0-2 (240-109180-10)[5X], SB06-0-2 (240-109180-15)[2X], SB06-0-2 (240-109180-15)[20X], SB07-0-2 (240-109180-17)[2X], SB07-0-2 (240-109180-17)[5X], SB09-0-2 (240-109180-19)[2X], SB10-0-2 (240-109180-21)[2X], SB08-0-2 (240-109180-23)[20X], SB08-0-2 (240-109180-23)[5X], SB08-2-4 (240-109180-24)[10X] and SB08-2-4 (240-109180-24)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The following samples were diluted due to the nature of the sample matrix: SB01-0-2 (240-109180-1), SB02-0-2 (240-109180-3), SB03-0-2 (240-109180-5), 9584-030519-0001 (240-109180-7), SB04-0-2 (240-109180-8), SB06-0-2 (240-109180-15), SB07-0-2 (240-109180-17), SB10-0-2 (240-109180-21), SB08-0-2 (240-109180-23) and SB08-2-4 (240-109180-24). Elevated reporting limits (RLs) are provided.

The continuing calibration verification (CCV) associated with batch 240-371354 recovered above the upper control limit for beryllium. The samples associated with this CCV were below the requested reporting limit for the affected analytes; therefore, the data have been reported. The following samples are impacted: SB01-0-2 (240-109180-1), SB01-5-7 (240-109180-2), SB02-6-8 (240-109180-4), SB03-6-8 (240-109180-6), 9584-030519-0001 (240-109180-7), SB05-6-8 (240-109180-11), 9584-030619-0002 (240-109180-14), SB06-2-4 (240-109180-16), SB07-4-6 (240-109180-18), SB09-3-5 (240-109180-20) and SB10-0-2 (240-109180-21).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICP)
Samples RINSE BLANK 1 (240-109180-12), RINSE BLANK 2 (240-109180-13), IMW-02-00001R (240-109180-25) and 9584-030719-0003 (240-109180-26) were analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010B. The samples were prepared on 03/11/2019 and analyzed on 03/12/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL MERCURY
Samples RINSE BLANK 1 (240-109180-12), RINSE BLANK 2 (240-109180-13), IMW-02-00001R (240-109180-25) and 9584-030719-0003 (240-109180-26) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 03/11/2019 and analyzed on 03/12/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL MERCURY
Samples SB01-0-2 (240-109180-1), SB01-5-7 (240-109180-2), SB02-0-2 (240-109180-3), SB02-6-8 (240-109180-4), SB03-0-2

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Laboratory: Eurofins TestAmerica, Canton (Continued)

(240-109180-5), SB03-6-8 (240-109180-6), 9584-030519-0001 (240-109180-7), SB04-0-2 (240-109180-8), SB04-6-8 (240-109180-9), SB05-0-2 (240-109180-10), SB05-6-8 (240-109180-11), 9584-030619-0002 (240-109180-14), SB06-0-2 (240-109180-15), SB06-2-4 (240-109180-16), SB07-0-2 (240-109180-17), SB07-4-6 (240-109180-18), SB09-0-2 (240-109180-19), SB09-3-5 (240-109180-20), SB10-0-2 (240-109180-21), SB10-4-6 (240-109180-22), SB08-0-2 (240-109180-23) and SB08-2-4 (240-109180-24) were analyzed for total mercury in accordance with EPA SW-846 Method 7471A. The samples were prepared on 03/11/2019 and analyzed on 03/13/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL CYANIDE
Samples SB01-0-2 (240-109180-1), SB01-5-7 (240-109180-2), SB02-0-2 (240-109180-3), SB02-6-8 (240-109180-4), SB03-0-2 (240-109180-5), SB03-6-8 (240-109180-6), 9584-030519-0001 (240-109180-7), SB04-0-2 (240-109180-8), SB04-6-8 (240-109180-9), SB05-0-2 (240-109180-10), SB05-6-8 (240-109180-11), 9584-030619-0002 (240-109180-14), SB06-0-2 (240-109180-15), SB06-2-4 (240-109180-16), SB07-0-2 (240-109180-17), SB07-4-6 (240-109180-18), SB09-0-2 (240-109180-19), SB09-3-5 (240-109180-20), SB10-0-2 (240-109180-21), SB10-4-6 (240-109180-22), SB08-0-2 (240-109180-23) and SB08-2-4 (240-109180-24) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012A. The samples were prepared and analyzed on 03/11/2019 and 03/12/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL CYANIDE
Samples RINSE BLANK 1 (240-109180-12) and RINSE BLANK 2 (240-109180-13) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012A. The samples were prepared and analyzed on 03/11/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SULFIDE
Samples SB01-0-2 (240-109180-1), SB01-5-7 (240-109180-2), SB02-0-2 (240-109180-3), SB02-6-8 (240-109180-4), SB03-0-2 (240-109180-5), SB03-6-8 (240-109180-6), 9584-030519-0001 (240-109180-7), SB04-0-2 (240-109180-8), SB04-6-8 (240-109180-9), SB05-0-2 (240-109180-10), SB05-6-8 (240-109180-11), 9584-030619-0002 (240-109180-14), SB06-0-2 (240-109180-15), SB06-2-4 (240-109180-16), SB07-0-2 (240-109180-17), SB07-4-6 (240-109180-18), SB09-0-2 (240-109180-19), SB09-3-5 (240-109180-20), SB10-0-2 (240-109180-21), SB10-4-6 (240-109180-22), SB08-0-2 (240-109180-23) and SB08-2-4 (240-109180-24) were analyzed for sulfide in accordance with EPA SW-846 Method 9034. The samples were prepared and analyzed on 03/11/2019 and 03/12/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SULFIDE
Samples RINSE BLANK 1 (240-109180-12) and RINSE BLANK 2 (240-109180-13) were analyzed for sulfide in accordance with EPA SW-846 Method 9034. The samples were prepared and analyzed on 03/12/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS
Samples SB01-0-2 (240-109180-1), SB01-5-7 (240-109180-2), SB02-0-2 (240-109180-3), SB02-6-8 (240-109180-4), SB03-0-2 (240-109180-5), SB03-6-8 (240-109180-6), 9584-030519-0001 (240-109180-7), SB04-0-2 (240-109180-8), SB04-6-8 (240-109180-9), SB05-0-2 (240-109180-10), SB05-6-8 (240-109180-11), 9584-030619-0002 (240-109180-14), SB06-0-2 (240-109180-15), SB06-2-4 (240-109180-16), SB07-0-2 (240-109180-17), SB07-4-6 (240-109180-18), SB09-0-2 (240-109180-19), SB09-3-5 (240-109180-20), SB10-0-2 (240-109180-21), SB10-4-6 (240-109180-22), SB08-0-2 (240-109180-23) and SB08-2-4 (240-109180-24) were analyzed for percent solids in accordance with ASTM Method D2216-80. The samples were analyzed on 03/11/2019.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
6010B	Metals (ICP)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
7471A	Mercury (CVAA)	SW846	TAL CAN
9012A	Cyanide, Total and/or Amenable	SW846	TAL CAN
9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	TAL CAN
Moisture	Percent Moisture	EPA	TAL CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CAN
3050B	Preparation, Metals	SW846	TAL CAN
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CAN
3540C	Soxhlet Extraction	SW846	TAL CAN
5030C	Purge and Trap	SW846	TAL CAN
5035	Closed System Purge and Trap	SW846	TAL CAN
7470A	Preparation, Mercury	SW846	TAL CAN
7471A	Preparation, Mercury	SW846	TAL CAN
9012A	Cyanide, Total and/or Amenable, Distillation	SW846	TAL CAN
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	SW846	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-109180-1	SB01-0-2	Solid	03/05/19 08:30	03/09/19 09:50
240-109180-2	SB01-5-7	Solid	03/05/19 09:00	03/09/19 09:50
240-109180-3	SB02-0-2	Solid	03/05/19 09:30	03/09/19 09:50
240-109180-4	SB02-6-8	Solid	03/05/19 10:00	03/09/19 09:50
240-109180-5	SB03-0-2	Solid	03/05/19 10:45	03/09/19 09:50
240-109180-6	SB03-6-8	Solid	03/05/19 11:10	03/09/19 09:50
240-109180-7	9584-030519-0001	Solid	03/05/19 00:01	03/09/19 09:50
240-109180-8	SB04-0-2	Solid	03/05/19 14:30	03/09/19 09:50
240-109180-9	SB04-6-8	Solid	03/05/19 15:10	03/09/19 09:50
240-109180-10	SB05-0-2	Solid	03/06/19 08:00	03/09/19 09:50
240-109180-11	SB05-6-8	Solid	03/06/19 08:30	03/09/19 09:50
240-109180-12	RINSE BLANK 1	Water	03/06/19 10:45	03/09/19 09:50
240-109180-13	RINSE BLANK 2	Water	03/06/19 14:45	03/09/19 09:50
240-109180-14	9584-030619-0002	Solid	03/06/19 00:02	03/09/19 09:50
240-109180-15	SB06-0-2	Solid	03/06/19 09:15	03/09/19 09:50
240-109180-16	SB06-2-4	Solid	03/06/19 09:45	03/09/19 09:50
240-109180-17	SB07-0-2	Solid	03/06/19 11:25	03/09/19 09:50
240-109180-18	SB07-4-6	Solid	03/06/19 11:55	03/09/19 09:50
240-109180-19	SB09-0-2	Solid	03/06/19 12:40	03/09/19 09:50
240-109180-20	SB09-3-5	Solid	03/06/19 13:00	03/09/19 09:50
240-109180-21	SB10-0-2	Solid	03/06/19 13:35	03/09/19 09:50
240-109180-22	SB10-4-6	Solid	03/06/19 14:00	03/09/19 09:50
240-109180-23	SB08-0-2	Solid	03/07/19 08:00	03/09/19 09:50
240-109180-24	SB08-2-4	Solid	03/07/19 08:30	03/09/19 09:50
240-109180-25	IMW-02-00001R	Water	03/07/19 16:30	03/09/19 09:50
240-109180-26	9584-030719-0003	Water	03/07/19 00:03	03/09/19 09:50
240-109180-27	IFW-02-00022R	Water	03/08/19 10:00	03/09/19 09:50
240-109180-28	9584-030819-0004	Water	03/08/19 00:04	03/09/19 09:50
240-109180-29	IMW-02-0004S	Water	03/08/19 11:45	03/09/19 09:50
240-109180-30	TRIP BLANK 1	Water	03/08/19 12:00	03/09/19 09:50

Detection Summary

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB01-0-2 — Lab Sample ID: 240-109180-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	77	J	280	17	ug/Kg	1	☼	8260C	Total/NA
2-Methylnaphthalene	52	J	81	11	ug/Kg	5	☼	8270C	Total/NA
Acenaphthene	64	J	81	16	ug/Kg	5	☼	8270C	Total/NA
Anthracene	130		81	13	ug/Kg	5	☼	8270C	Total/NA
Benzo[a]anthracene	220		81	18	ug/Kg	5	☼	8270C	Total/NA
Benzo[a]pyrene	250		81	51	ug/Kg	5	☼	8270C	Total/NA
Benzo[b]fluoranthene	250		81	35	ug/Kg	5	☼	8270C	Total/NA
Benzo[g,h,i]perylene	360		81	39	ug/Kg	5	☼	8270C	Total/NA
Chrysene	280		81	8.1	ug/Kg	5	☼	8270C	Total/NA
Fluoranthene	570		81	24	ug/Kg	5	☼	8270C	Total/NA
Fluorene	55	J	81	15	ug/Kg	5	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	150		81	40	ug/Kg	5	☼	8270C	Total/NA
Naphthalene	86		81	13	ug/Kg	5	☼	8270C	Total/NA
Phenanthrene	510		81	12	ug/Kg	5	☼	8270C	Total/NA
Pyrene	530		81	12	ug/Kg	5	☼	8270C	Total/NA
Arsenic	3.8	J	5.3	1.7	mg/Kg	5	☼	6010B	Total/NA
Lead	29		1.1	0.30	mg/Kg	1	☼	6010B	Total/NA
Antimony	0.71	J	1.1	0.38	mg/Kg	1	☼	6010B	Total/NA
Barium	100		21	0.38	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.41	J ^	0.53	0.057	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.24		0.21	0.051	mg/Kg	1	☼	6010B	Total/NA
Chromium	210		0.53	0.16	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.2		1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Copper	16		2.6	0.25	mg/Kg	1	☼	6010B	Total/NA
Nickel	9.3		4.2	0.25	mg/Kg	1	☼	6010B	Total/NA
Silver	0.91	B	0.53	0.085	mg/Kg	1	☼	6010B	Total/NA
Magnesium	22000		530	49	mg/Kg	1	☼	6010B	Total/NA
Tin	5.0	J	11	3.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	4100	B	7.9	1.6	mg/Kg	5	☼	6010B	Total/NA
Vanadium	110		5.3	0.87	mg/Kg	1	☼	6010B	Total/NA
Zinc	88		5.3	1.4	mg/Kg	1	☼	6010B	Total/NA
Sodium	220	J	530	66	mg/Kg	1	☼	6010B	Total/NA
Iron	44000		11	7.3	mg/Kg	1	☼	6010B	Total/NA
Cyanide, Total	0.43	J	0.60	0.23	mg/Kg	1	☼	9012A	Total/NA
Sulfide	63		33	16	mg/Kg	1	☼	9034	Total/NA

Client Sample ID: SB01-5-7 — Lab Sample ID: 240-109180-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	24		16	2.1	ug/Kg	1	☼	8270C	Total/NA
Anthracene	49		16	2.6	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]pyrene	97		16	10	ug/Kg	1	☼	8270C	Total/NA
Benzo[b]fluoranthene	58		16	7.1	ug/Kg	1	☼	8270C	Total/NA
Benzo[g,h,i]perylene	450		16	7.7	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	20		16	4.8	ug/Kg	1	☼	8270C	Total/NA
Naphthalene	11	J	16	2.6	ug/Kg	1	☼	8270C	Total/NA
Phenanthrene	28		16	2.4	ug/Kg	1	☼	8270C	Total/NA
Pyrene	51		16	2.3	ug/Kg	1	☼	8270C	Total/NA
Arsenic	4.3		1.0	0.32	mg/Kg	1	☼	6010B	Total/NA
Lead	8.4		1.0	0.29	mg/Kg	1	☼	6010B	Total/NA
Barium	17	J	20	0.37	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SB01-5-7 (Continued) — Lab Sample ID: 240-109180-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.089	J	0.20	0.049	mg/Kg	1	☼	6010B	Total/NA
Chromium	7.8		0.51	0.15	mg/Kg	1	☼	6010B	Total/NA
Cobalt	1.8		1.0	0.20	mg/Kg	1	☼	6010B	Total/NA
Copper	6.1		2.6	0.24	mg/Kg	1	☼	6010B	Total/NA
Nickel	3.7	J	4.1	0.24	mg/Kg	1	☼	6010B	Total/NA
Silver	0.26	J B	0.51	0.083	mg/Kg	1	☼	6010B	Total/NA
Magnesium	15000		510	47	mg/Kg	1	☼	6010B	Total/NA
Manganese	160	B	1.5	0.32	mg/Kg	1	☼	6010B	Total/NA
Vanadium	9.0		5.1	0.84	mg/Kg	1	☼	6010B	Total/NA
Zinc	26		5.1	1.4	mg/Kg	1	☼	6010B	Total/NA
Sodium	100	J	510	64	mg/Kg	1	☼	6010B	Total/NA
Iron	5400		10	7.1	mg/Kg	1	☼	6010B	Total/NA
Sulfide	49		32	16	mg/Kg	1	☼	9034	Total/NA

Client Sample ID: SB02-0-2 — Lab Sample ID: 240-109180-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	28		16	2.1	ug/Kg	1	☼	8270C	Total/NA
Acenaphthylene	4.5	J	16	4.3	ug/Kg	1	☼	8270C	Total/NA
Anthracene	14	J	16	2.6	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]anthracene	62		16	3.7	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]pyrene	58		16	10	ug/Kg	1	☼	8270C	Total/NA
Benzo[b]fluoranthene	120		16	7.0	ug/Kg	1	☼	8270C	Total/NA
Benzo[g,h,i]perylene	67		16	7.6	ug/Kg	1	☼	8270C	Total/NA
Benzo[k]fluoranthene	29		16	7.5	ug/Kg	1	☼	8270C	Total/NA
Bis(2-ethylhexyl) phthalate	56	J	75	55	ug/Kg	1	☼	8270C	Total/NA
Chrysene	88		16	1.6	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	130		16	4.8	ug/Kg	1	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	44		16	7.9	ug/Kg	1	☼	8270C	Total/NA
Naphthalene	24		16	2.6	ug/Kg	1	☼	8270C	Total/NA
Phenanthrene	71		16	2.4	ug/Kg	1	☼	8270C	Total/NA
Pyrene	150		16	2.3	ug/Kg	1	☼	8270C	Total/NA
Lead	6.0		0.92	0.26	mg/Kg	1	☼	6010B	Total/NA
Selenium	3.7	J	6.9	2.1	mg/Kg	5	☼	6010B	Total/NA
Barium	280		18	0.33	mg/Kg	1	☼	6010B	Total/NA
Beryllium	6.2		2.3	0.25	mg/Kg	5	☼	6010B	Total/NA
Cadmium	0.072	J	0.18	0.044	mg/Kg	1	☼	6010B	Total/NA
Chromium	22		0.46	0.14	mg/Kg	1	☼	6010B	Total/NA
Cobalt	0.67	J	0.92	0.18	mg/Kg	1	☼	6010B	Total/NA
Copper	6.5	J	11	1.1	mg/Kg	5	☼	6010B	Total/NA
Nickel	3.6	J	3.7	0.21	mg/Kg	1	☼	6010B	Total/NA
Silver	0.81	B	0.46	0.074	mg/Kg	1	☼	6010B	Total/NA
Magnesium	37000		460	42	mg/Kg	1	☼	6010B	Total/NA
Manganese	3300	B	6.9	1.4	mg/Kg	5	☼	6010B	Total/NA
Vanadium	17		4.6	0.75	mg/Kg	1	☼	6010B	Total/NA
Zinc	23		4.6	1.3	mg/Kg	1	☼	6010B	Total/NA
Sodium	1300		460	58	mg/Kg	1	☼	6010B	Total/NA
Iron	6100		9.2	6.4	mg/Kg	1	☼	6010B	Total/NA
Cyanide, Total	2.3		0.56	0.21	mg/Kg	1	☼	9012A	Total/NA
Sulfide	1500		33	16	mg/Kg	1	☼	9034	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB02-6-8 — Lab Sample ID: 240-109180-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	14	J	17	3.9	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]pyrene	20		17	11	ug/Kg	1	☼	8270C	Total/NA
Benzo[b]fluoranthene	22		17	7.5	ug/Kg	1	☼	8270C	Total/NA
Benzo[g,h,i]perylene	14	J	17	8.2	ug/Kg	1	☼	8270C	Total/NA
Chrysene	17		17	1.7	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	37		17	5.1	ug/Kg	1	☼	8270C	Total/NA
Pyrene	28		17	2.5	ug/Kg	1	☼	8270C	Total/NA
Arsenic	2.1		1.1	0.35	mg/Kg	1	☼	6010B	Total/NA
Lead	2.1		1.1	0.31	mg/Kg	1	☼	6010B	Total/NA
Barium	3.3	J	22	0.40	mg/Kg	1	☼	6010B	Total/NA
Chromium	6.0		0.55	0.17	mg/Kg	1	☼	6010B	Total/NA
Cobalt	1.4		1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Copper	1.8	J	2.7	0.26	mg/Kg	1	☼	6010B	Total/NA
Nickel	2.6	J	4.4	0.26	mg/Kg	1	☼	6010B	Total/NA
Silver	0.13	J B	0.55	0.089	mg/Kg	1	☼	6010B	Total/NA
Magnesium	12000		550	51	mg/Kg	1	☼	6010B	Total/NA
Manganese	160	B	1.6	0.34	mg/Kg	1	☼	6010B	Total/NA
Vanadium	11		5.5	0.90	mg/Kg	1	☼	6010B	Total/NA
Zinc	12		5.5	1.5	mg/Kg	1	☼	6010B	Total/NA
Sodium	100	J	550	69	mg/Kg	1	☼	6010B	Total/NA
Iron	4100		11	7.6	mg/Kg	1	☼	6010B	Total/NA
Sulfide	34	J	35	17	mg/Kg	1	☼	9034	Total/NA

Client Sample ID: SB03-0-2 — Lab Sample ID: 240-109180-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	8.5	J	17	2.2	ug/Kg	1	☼	8270C	Total/NA
Acenaphthene	28		17	3.2	ug/Kg	1	☼	8270C	Total/NA
Acenaphthylene	8.7	J	17	4.5	ug/Kg	1	☼	8270C	Total/NA
Anthracene	180		17	2.7	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]anthracene	280		17	3.8	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]pyrene	190		17	10	ug/Kg	1	☼	8270C	Total/NA
Benzo[b]fluoranthene	380		17	7.2	ug/Kg	1	☼	8270C	Total/NA
Benzo[g,h,i]perylene	97		17	7.9	ug/Kg	1	☼	8270C	Total/NA
Benzo[k]fluoranthene	150		17	7.7	ug/Kg	1	☼	8270C	Total/NA
Bis(2-ethylhexyl) phthalate	140		78	57	ug/Kg	1	☼	8270C	Total/NA
Carbazole	92		56	21	ug/Kg	1	☼	8270C	Total/NA
Chrysene	330		17	1.7	ug/Kg	1	☼	8270C	Total/NA
Dibenz(a,h)anthracene	33		17	7.7	ug/Kg	1	☼	8270C	Total/NA
Dibenzofuran	36	J	56	14	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	850		17	4.9	ug/Kg	1	☼	8270C	Total/NA
Fluorene	16	J	17	3.0	ug/Kg	1	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	93		17	8.2	ug/Kg	1	☼	8270C	Total/NA
Naphthalene	13	J	17	2.7	ug/Kg	1	☼	8270C	Total/NA
Phenanthrene	670		17	2.5	ug/Kg	1	☼	8270C	Total/NA
Pyrene	620		17	2.4	ug/Kg	1	☼	8270C	Total/NA
Lead	9.8		0.90	0.25	mg/Kg	1	☼	6010B	Total/NA
Barium	300		18	0.32	mg/Kg	1	☼	6010B	Total/NA
Beryllium	6.6		2.2	0.24	mg/Kg	5	☼	6010B	Total/NA
Cadmium	0.11	J	0.18	0.043	mg/Kg	1	☼	6010B	Total/NA
Chromium	100		0.45	0.14	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB03-0-2 (Continued) — Lab Sample ID: 240-109180-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.88	J	0.90	0.18	mg/Kg	1	☼	6010B	Total/NA
Copper	24		11	1.1	mg/Kg	5	☼	6010B	Total/NA
Nickel	10		3.6	0.21	mg/Kg	1	☼	6010B	Total/NA
Silver	0.76	B	0.45	0.073	mg/Kg	1	☼	6010B	Total/NA
Magnesium	36000		450	41	mg/Kg	1	☼	6010B	Total/NA
Tin	4.4	J	9.0	3.3	mg/Kg	1	☼	6010B	Total/NA
Manganese	3700	B	6.7	1.4	mg/Kg	5	☼	6010B	Total/NA
Vanadium	25		4.5	0.74	mg/Kg	1	☼	6010B	Total/NA
Zinc	140		4.5	1.2	mg/Kg	1	☼	6010B	Total/NA
Sodium	1300		450	56	mg/Kg	1	☼	6010B	Total/NA
Iron	11000		9.0	6.2	mg/Kg	1	☼	6010B	Total/NA
Cyanide, Total	1.9		0.51	0.19	mg/Kg	1	☼	9012A	Total/NA
Sulfide	1500		33	16	mg/Kg	1	☼	9034	Total/NA

Client Sample ID: SB03-6-8 — Lab Sample ID: 240-109180-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	6.9	J	17	5.1	ug/Kg	1	☼	8270C	Total/NA
Pyrene	7.1	J	17	2.5	ug/Kg	1	☼	8270C	Total/NA
Arsenic	2.2		1.1	0.34	mg/Kg	1	☼	6010B	Total/NA
Lead	4.0		1.1	0.31	mg/Kg	1	☼	6010B	Total/NA
Barium	5.2	J	22	0.39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.11	J	0.22	0.052	mg/Kg	1	☼	6010B	Total/NA
Chromium	4.7		0.54	0.16	mg/Kg	1	☼	6010B	Total/NA
Cobalt	1.9		1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Copper	3.7		2.7	0.26	mg/Kg	1	☼	6010B	Total/NA
Nickel	3.7	J	4.4	0.25	mg/Kg	1	☼	6010B	Total/NA
Silver	0.21	J B	0.54	0.088	mg/Kg	1	☼	6010B	Total/NA
Magnesium	19000		540	50	mg/Kg	1	☼	6010B	Total/NA
Manganese	180	B	1.6	0.34	mg/Kg	1	☼	6010B	Total/NA
Vanadium	8.7		5.4	0.90	mg/Kg	1	☼	6010B	Total/NA
Zinc	19		5.4	1.5	mg/Kg	1	☼	6010B	Total/NA
Sodium	100	J	540	68	mg/Kg	1	☼	6010B	Total/NA
Iron	4600		11	7.6	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 9584-030519-0001 — Lab Sample ID: 240-109180-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	29	J	260	15	ug/Kg	1	☼	8260C	Total/NA
2-Methylnaphthalene	110		80	10	ug/Kg	5	☼	8270C	Total/NA
Acenaphthene	28	J	80	15	ug/Kg	5	☼	8270C	Total/NA
Anthracene	86		80	13	ug/Kg	5	☼	8270C	Total/NA
Benzo[a]anthracene	280		80	18	ug/Kg	5	☼	8270C	Total/NA
Benzo[a]pyrene	220		80	50	ug/Kg	5	☼	8270C	Total/NA
Benzo[b]fluoranthene	430		80	34	ug/Kg	5	☼	8270C	Total/NA
Benzo[g,h,i]perylene	240		80	38	ug/Kg	5	☼	8270C	Total/NA
Benzo[k]fluoranthene	130		80	37	ug/Kg	5	☼	8270C	Total/NA
Chrysene	380		80	7.9	ug/Kg	5	☼	8270C	Total/NA
Dibenzofuran	82	J	270	69	ug/Kg	5	☼	8270C	Total/NA
Fluoranthene	730		80	24	ug/Kg	5	☼	8270C	Total/NA
Fluorene	32	J	80	15	ug/Kg	5	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	180		80	39	ug/Kg	5	☼	8270C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 9584-030519-0001 (Continued) — Lab Sample ID: 240-109180-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	150		80	13	ug/Kg	5	☼	8270C	Total/NA
Phenanthrene	460		80	12	ug/Kg	5	☼	8270C	Total/NA
Pyrene	660		80	11	ug/Kg	5	☼	8270C	Total/NA
Lead	33		17	4.7	mg/Kg	20	☼	6010B	Total/NA
Barium	180		17	0.30	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.40	J ^	0.42	0.045	mg/Kg	1	☼	6010B	Total/NA
Chromium	1100		0.42	0.13	mg/Kg	1	☼	6010B	Total/NA
Cobalt	1.9		0.84	0.17	mg/Kg	1	☼	6010B	Total/NA
Copper	45		42	3.9	mg/Kg	20	☼	6010B	Total/NA
Nickel	14	J	67	3.9	mg/Kg	20	☼	6010B	Total/NA
Silver	2.6	B	0.42	0.068	mg/Kg	1	☼	6010B	Total/NA
Magnesium	26000		420	39	mg/Kg	1	☼	6010B	Total/NA
Tin	6.0	J	8.4	3.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	16000	B	25	5.2	mg/Kg	20	☼	6010B	Total/NA
Vanadium	540		84	14	mg/Kg	20	☼	6010B	Total/NA
Zinc	90		4.2	1.1	mg/Kg	1	☼	6010B	Total/NA
Sodium	190	J	420	52	mg/Kg	1	☼	6010B	Total/NA
Iron	210000		170	120	mg/Kg	20	☼	6010B	Total/NA
Mercury	0.17		0.11	0.020	mg/Kg	1	☼	7471A	Total/NA
Cyanide, Total	1.2		0.56	0.21	mg/Kg	1	☼	9012A	Total/NA
Sulfide	82		32	16	mg/Kg	1	☼	9034	Total/NA

Client Sample ID: SB04-0-2 — Lab Sample ID: 240-109180-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	33	J	260	16	ug/Kg	1	☼	8260C	Total/NA
Xylenes, Total	26	J	520	24	ug/Kg	1	☼	8260C	Total/NA
Naphthalene	170	J *	260	120	ug/Kg	1	☼	8260C	Total/NA
1,1'-Biphenyl	27	J	54	18	ug/Kg	1	☼	8270C	Total/NA
2-Methylnaphthalene	100		16	2.1	ug/Kg	1	☼	8270C	Total/NA
Acenaphthene	20		16	3.1	ug/Kg	1	☼	8270C	Total/NA
Acenaphthylene	14	J	16	4.3	ug/Kg	1	☼	8270C	Total/NA
Acetophenone	22	J	110	12	ug/Kg	1	☼	8270C	Total/NA
Anthracene	65		16	2.6	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]anthracene	250		16	3.7	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]pyrene	210		16	10	ug/Kg	1	☼	8270C	Total/NA
Benzo[b]fluoranthene	410		16	7.0	ug/Kg	1	☼	8270C	Total/NA
Benzo[g,h,i]perylene	200		16	7.7	ug/Kg	1	☼	8270C	Total/NA
Benzo[k]fluoranthene	130		16	7.5	ug/Kg	1	☼	8270C	Total/NA
Bis(2-ethylhexyl) phthalate	400		76	55	ug/Kg	1	☼	8270C	Total/NA
Carbazole	35	J	54	21	ug/Kg	1	☼	8270C	Total/NA
Chrysene	330		16	1.6	ug/Kg	1	☼	8270C	Total/NA
Dibenz(a,h)anthracene	65		16	7.5	ug/Kg	1	☼	8270C	Total/NA
Dibenzofuran	59		54	14	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	590		16	4.8	ug/Kg	1	☼	8270C	Total/NA
Fluorene	15	J	16	3.0	ug/Kg	1	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	150		16	8.0	ug/Kg	1	☼	8270C	Total/NA
Naphthalene	100		16	2.6	ug/Kg	1	☼	8270C	Total/NA
Phenanthrene	330		16	2.4	ug/Kg	1	☼	8270C	Total/NA
Pyrene	530		16	2.3	ug/Kg	1	☼	8270C	Total/NA
Lead	94		1.5	0.43	mg/Kg	2	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SB04-0-2 (Continued) — Lab Sample ID: 240-109180-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	2.6		1.5	0.54	mg/Kg	2	☼	6010B	Total/NA
Barium	150		15	0.27	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.55		0.38	0.041	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.72		0.30	0.072	mg/Kg	2	☼	6010B	Total/NA
Chromium	800		0.38	0.11	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.3		0.75	0.15	mg/Kg	1	☼	6010B	Total/NA
Copper	62		3.8	0.36	mg/Kg	2	☼	6010B	Total/NA
Nickel	22		6.0	0.35	mg/Kg	2	☼	6010B	Total/NA
Silver	2.9	B	0.38	0.061	mg/Kg	1	☼	6010B	Total/NA
Magnesium	28000		380	35	mg/Kg	1	☼	6010B	Total/NA
Tin	7.6		7.5	2.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	15000	B	23	4.7	mg/Kg	20	☼	6010B	Total/NA
Vanadium	230		7.5	1.2	mg/Kg	2	☼	6010B	Total/NA
Zinc	260		3.8	1.0	mg/Kg	1	☼	6010B	Total/NA
Sodium	170	J	380	47	mg/Kg	1	☼	6010B	Total/NA
Iron	66000		15	10	mg/Kg	2	☼	6010B	Total/NA
Mercury	0.080	J	0.11	0.019	mg/Kg	1	☼	7471A	Total/NA
Cyanide, Total	1.6		0.59	0.23	mg/Kg	1	☼	9012A	Total/NA
Sulfide	94		33	16	mg/Kg	1	☼	9034	Total/NA

Client Sample ID: SB04-6-8 — Lab Sample ID: 240-109180-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	26	J	250	12	ug/Kg	1	☼	8260C	Total/NA
Methylcyclohexane	120	J	490	65	ug/Kg	1	☼	8260C	Total/NA
Toluene	110	J	250	45	ug/Kg	1	☼	8260C	Total/NA
Xylenes, Total	180	J	490	23	ug/Kg	1	☼	8260C	Total/NA
2-Methylnaphthalene	22		16	2.1	ug/Kg	1	☼	8270C	Total/NA
Acenaphthene	31		16	3.1	ug/Kg	1	☼	8270C	Total/NA
Anthracene	74		16	2.6	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]anthracene	200		16	3.7	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]pyrene	190		16	10	ug/Kg	1	☼	8270C	Total/NA
Benzo[b]fluoranthene	230		16	7.0	ug/Kg	1	☼	8270C	Total/NA
Benzo[g,h,i]perylene	150		16	7.6	ug/Kg	1	☼	8270C	Total/NA
Benzo[k]fluoranthene	120		16	7.5	ug/Kg	1	☼	8270C	Total/NA
Bis(2-ethylhexyl) phthalate	100	F1	75	55	ug/Kg	1	☼	8270C	Total/NA
Carbazole	39	J	54	20	ug/Kg	1	☼	8270C	Total/NA
Chrysene	220		16	1.6	ug/Kg	1	☼	8270C	Total/NA
Dibenz(a,h)anthracene	36		16	7.5	ug/Kg	1	☼	8270C	Total/NA
Dibenzofuran	20	J	54	14	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	470		16	4.8	ug/Kg	1	☼	8270C	Total/NA
Fluorene	28		16	3.0	ug/Kg	1	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	120		16	7.9	ug/Kg	1	☼	8270C	Total/NA
Naphthalene	22		16	2.6	ug/Kg	1	☼	8270C	Total/NA
Phenanthrene	300		16	2.4	ug/Kg	1	☼	8270C	Total/NA
Pyrene	380		16	2.3	ug/Kg	1	☼	8270C	Total/NA
Arsenic	3.2		0.84	0.26	mg/Kg	1	☼	6010B	Total/NA
Lead	7.1		0.84	0.24	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.78	J	1.3	0.39	mg/Kg	1	☼	6010B	Total/NA
Barium	9.4	J	17	0.30	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.072	J	0.42	0.045	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SB04-6-8 (Continued) — Lab Sample ID: 240-109180-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.081	J	0.17	0.040	mg/Kg	1	☼	6010B	Total/NA
Chromium	23	F1	0.42	0.13	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.5		0.84	0.17	mg/Kg	1	☼	6010B	Total/NA
Copper	9.0		2.1	0.20	mg/Kg	1	☼	6010B	Total/NA
Nickel	6.2		3.3	0.20	mg/Kg	1	☼	6010B	Total/NA
Silver	0.20	J B	0.42	0.068	mg/Kg	1	☼	6010B	Total/NA
Magnesium	11000	F1 F2	420	39	mg/Kg	1	☼	6010B	Total/NA
Tin	3.0	J	8.4	3.0	mg/Kg	1	☼	6010B	Total/NA
Manganese	360	B	1.3	0.26	mg/Kg	1	☼	6010B	Total/NA
Vanadium	13		4.2	0.69	mg/Kg	1	☼	6010B	Total/NA
Zinc	24		4.2	1.1	mg/Kg	1	☼	6010B	Total/NA
Sodium	77	J	420	53	mg/Kg	1	☼	6010B	Total/NA
Iron	9300	F2	8.4	5.8	mg/Kg	1	☼	6010B	Total/NA
Sulfide	83		32	16	mg/Kg	1	☼	9034	Total/NA

Client Sample ID: SB05-0-2 — Lab Sample ID: 240-109180-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	65	J *	260	15	ug/Kg	1	☼	8260C	Total/NA
Benzene	8.4	J	260	8.4	ug/Kg	1	☼	8260C	Total/NA
Ethylbenzene	18	J	260	13	ug/Kg	1	☼	8260C	Total/NA
Methylcyclohexane	80	J	520	69	ug/Kg	1	☼	8260C	Total/NA
Tetrachloroethene	190	J	260	16	ug/Kg	1	☼	8260C	Total/NA
Toluene	83	J	260	47	ug/Kg	1	☼	8260C	Total/NA
Xylenes, Total	85	J	520	24	ug/Kg	1	☼	8260C	Total/NA
Naphthalene	190	J *	260	120	ug/Kg	1	☼	8260C	Total/NA
2-Methylnaphthalene	150		32	4.2	ug/Kg	2	☼	8270C	Total/NA
Acenaphthene	87		32	6.1	ug/Kg	2	☼	8270C	Total/NA
Acenaphthylene	39		32	8.5	ug/Kg	2	☼	8270C	Total/NA
Anthracene	230		32	5.1	ug/Kg	2	☼	8270C	Total/NA
Benzo[a]anthracene	740		32	7.2	ug/Kg	2	☼	8270C	Total/NA
Benzo[a]pyrene	710		32	20	ug/Kg	2	☼	8270C	Total/NA
Benzo[b]fluoranthene	1100		32	14	ug/Kg	2	☼	8270C	Total/NA
Benzo[g,h,i]perylene	640		32	15	ug/Kg	2	☼	8270C	Total/NA
Benzo[k]fluoranthene	380		32	15	ug/Kg	2	☼	8270C	Total/NA
Carbazole	120		110	40	ug/Kg	2	☼	8270C	Total/NA
Chrysene	790		32	3.2	ug/Kg	2	☼	8270C	Total/NA
Dibenz(a,h)anthracene	120		32	15	ug/Kg	2	☼	8270C	Total/NA
Dibenzofuran	97	J	110	28	ug/Kg	2	☼	8270C	Total/NA
Fluoranthene	1600		32	9.5	ug/Kg	2	☼	8270C	Total/NA
Fluorene	76		32	5.8	ug/Kg	2	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	480		32	16	ug/Kg	2	☼	8270C	Total/NA
Naphthalene	200		32	5.1	ug/Kg	2	☼	8270C	Total/NA
Phenanthrene	1000		32	4.7	ug/Kg	2	☼	8270C	Total/NA
Pyrene	1300		32	4.5	ug/Kg	2	☼	8270C	Total/NA
Arsenic	3.7	J	5.3	1.7	mg/Kg	5	☼	6010B	Total/NA
Lead	37	F1	1.1	0.30	mg/Kg	1	☼	6010B	Total/NA
Thallium	6.7		5.3	2.1	mg/Kg	5	☼	6010B	Total/NA
Barium	140	F1	21	0.38	mg/Kg	1	☼	6010B	Total/NA
Beryllium	2.4	F1	0.53	0.057	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.59		0.21	0.051	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SB05-0-2 (Continued) — Lab Sample ID: 240-109180-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	120		2.7	0.80	mg/Kg	5	☼	6010B	Total/NA
Cobalt	1.2		1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Copper	20		13	1.3	mg/Kg	5	☼	6010B	Total/NA
Nickel	9.0		4.2	0.25	mg/Kg	1	☼	6010B	Total/NA
Magnesium	26000	F2	530	49	mg/Kg	1	☼	6010B	Total/NA
Tin	5.2	J	11	3.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	4200		8.0	1.6	mg/Kg	5	☼	6010B	Total/NA
Vanadium	46	F1 F2	5.3	0.87	mg/Kg	1	☼	6010B	Total/NA
Zinc	150	F1	5.3	1.5	mg/Kg	1	☼	6010B	Total/NA
Sodium	810		530	67	mg/Kg	1	☼	6010B	Total/NA
Iron	26000		11	7.4	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.049	J	0.12	0.021	mg/Kg	1	☼	7471A	Total/NA
Cyanide, Total	0.60		0.54	0.20	mg/Kg	1	☼	9012A	Total/NA
Sulfide	430		32	16	mg/Kg	1	☼	9034	Total/NA

Client Sample ID: SB05-6-8 — Lab Sample ID: 240-109180-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	10	J	16	2.1	ug/Kg	1	☼	8270C	Total/NA
Anthracene	4.8	J	16	2.6	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]anthracene	29		16	3.6	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]pyrene	37		16	10	ug/Kg	1	☼	8270C	Total/NA
Benzo[b]fluoranthene	60		16	6.9	ug/Kg	1	☼	8270C	Total/NA
Benzo[g,h,i]perylene	37		16	7.6	ug/Kg	1	☼	8270C	Total/NA
Benzo[k]fluoranthene	20		16	7.4	ug/Kg	1	☼	8270C	Total/NA
Chrysene	43		16	1.6	ug/Kg	1	☼	8270C	Total/NA
Dibenz(a,h)anthracene	13	J	16	7.4	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	42		16	4.7	ug/Kg	1	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	28		16	7.9	ug/Kg	1	☼	8270C	Total/NA
Naphthalene	10	J	16	2.6	ug/Kg	1	☼	8270C	Total/NA
Phenanthrene	28		16	2.4	ug/Kg	1	☼	8270C	Total/NA
Pyrene	43		16	2.3	ug/Kg	1	☼	8270C	Total/NA
Arsenic	3.4		1.0	0.33	mg/Kg	1	☼	6010B	Total/NA
Lead	16		1.0	0.29	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.50	J	1.5	0.48	mg/Kg	1	☼	6010B	Total/NA
Antimony	0.59	J	1.0	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	11	J	21	0.37	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.097	J ^	0.52	0.056	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.26		0.21	0.049	mg/Kg	1	☼	6010B	Total/NA
Chromium	7.4		0.52	0.16	mg/Kg	1	☼	6010B	Total/NA
Cobalt	1.4		1.0	0.21	mg/Kg	1	☼	6010B	Total/NA
Copper	7.3		2.6	0.24	mg/Kg	1	☼	6010B	Total/NA
Nickel	4.0	J	4.1	0.24	mg/Kg	1	☼	6010B	Total/NA
Silver	0.26	J B	0.52	0.084	mg/Kg	1	☼	6010B	Total/NA
Magnesium	8200		520	48	mg/Kg	1	☼	6010B	Total/NA
Tin	3.8	J	10	3.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	220	B	1.5	0.32	mg/Kg	1	☼	6010B	Total/NA
Vanadium	9.2		5.2	0.85	mg/Kg	1	☼	6010B	Total/NA
Zinc	40		5.2	1.4	mg/Kg	1	☼	6010B	Total/NA
Sodium	89	J	520	65	mg/Kg	1	☼	6010B	Total/NA
Iron	7000		10	7.2	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: RINSE BLANK 1 — Lab Sample ID: 240-109180-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzaldehyde	1.4	J	1.9	0.72	ug/L	1		8270C	Total/NA
Iron	59	J	100	26	ug/L	1		6010B	Total Recoverable
Sulfide	1.7	J	3.0	1.4	mg/L	1		9034	Total/NA

Client Sample ID: RINSE BLANK 2 — Lab Sample ID: 240-109180-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	1.6	J	10	1.2	ug/L	1		8260C	Total/NA
Acetone	5.6	J	10	5.4	ug/L	1		8260C	Total/NA
Toluene	0.24	J	1.0	0.14	ug/L	1		8260C	Total/NA
Iron	32	J	100	26	ug/L	1		6010B	Total Recoverable

Client Sample ID: 9584-030619-0002 — Lab Sample ID: 240-109180-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	31		16	2.1	ug/Kg	1	☼	8270C	Total/NA
Anthracene	8.5	J	16	2.6	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]anthracene	50		16	3.7	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]pyrene	58		16	10	ug/Kg	1	☼	8270C	Total/NA
Benzo[b]fluoranthene	100		16	7.1	ug/Kg	1	☼	8270C	Total/NA
Benzo[g,h,i]perylene	67		16	7.8	ug/Kg	1	☼	8270C	Total/NA
Benzo[k]fluoranthene	26		16	7.6	ug/Kg	1	☼	8270C	Total/NA
Chrysene	61		16	1.6	ug/Kg	1	☼	8270C	Total/NA
Dibenz(a,h)anthracene	23		16	7.6	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	77		16	4.9	ug/Kg	1	☼	8270C	Total/NA
Fluorene	4.9	J	16	3.0	ug/Kg	1	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	51		16	8.1	ug/Kg	1	☼	8270C	Total/NA
Naphthalene	23		16	2.6	ug/Kg	1	☼	8270C	Total/NA
Phenanthrene	65		16	2.4	ug/Kg	1	☼	8270C	Total/NA
Pyrene	73		16	2.3	ug/Kg	1	☼	8270C	Total/NA
Arsenic	3.5		0.99	0.31	mg/Kg	1	☼	6010B	Total/NA
Lead	17		0.99	0.28	mg/Kg	1	☼	6010B	Total/NA
Antimony	0.46	J	0.99	0.36	mg/Kg	1	☼	6010B	Total/NA
Barium	11	J	20	0.36	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.081	J ^	0.50	0.054	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.27		0.20	0.048	mg/Kg	1	☼	6010B	Total/NA
Chromium	8.0		0.50	0.15	mg/Kg	1	☼	6010B	Total/NA
Cobalt	1.5		0.99	0.20	mg/Kg	1	☼	6010B	Total/NA
Copper	6.6		2.5	0.23	mg/Kg	1	☼	6010B	Total/NA
Nickel	3.9	J	4.0	0.23	mg/Kg	1	☼	6010B	Total/NA
Silver	0.23	J B	0.50	0.080	mg/Kg	1	☼	6010B	Total/NA
Magnesium	9200		500	46	mg/Kg	1	☼	6010B	Total/NA
Tin	3.7	J	9.9	3.6	mg/Kg	1	☼	6010B	Total/NA
Manganese	300	B	1.5	0.31	mg/Kg	1	☼	6010B	Total/NA
Vanadium	8.7		5.0	0.82	mg/Kg	1	☼	6010B	Total/NA
Zinc	42		5.0	1.4	mg/Kg	1	☼	6010B	Total/NA
Sodium	99	J	500	62	mg/Kg	1	☼	6010B	Total/NA
Iron	7200		9.9	6.9	mg/Kg	1	☼	6010B	Total/NA
Sulfide	19	J	33	16	mg/Kg	1	☼	9034	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB06-0-2 — Lab Sample ID: 240-109180-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl acetate	2100		1300	540	ug/Kg	1	☼	8260C	Total/NA
2-Methylnaphthalene	64	J	65	8.5	ug/Kg	4	☼	8270C	Total/NA
Acenaphthene	95		65	12	ug/Kg	4	☼	8270C	Total/NA
Acenaphthylene	97		65	17	ug/Kg	4	☼	8270C	Total/NA
Anthracene	360		65	10	ug/Kg	4	☼	8270C	Total/NA
Benzo[a]anthracene	1100		65	15	ug/Kg	4	☼	8270C	Total/NA
Benzo[a]pyrene	700		65	41	ug/Kg	4	☼	8270C	Total/NA
Benzo[b]fluoranthene	1500		65	28	ug/Kg	4	☼	8270C	Total/NA
Benzo[g,h,i]perylene	600		65	31	ug/Kg	4	☼	8270C	Total/NA
Benzo[k]fluoranthene	390		65	30	ug/Kg	4	☼	8270C	Total/NA
Bis(2-ethylhexyl) phthalate	330		300	220	ug/Kg	4	☼	8270C	Total/NA
Chrysene	1400		65	6.5	ug/Kg	4	☼	8270C	Total/NA
Dibenz(a,h)anthracene	180		65	30	ug/Kg	4	☼	8270C	Total/NA
Dibenzofuran	65	J	220	57	ug/Kg	4	☼	8270C	Total/NA
Fluoranthene	4300		65	19	ug/Kg	4	☼	8270C	Total/NA
Fluorene	76		65	12	ug/Kg	4	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	510		65	32	ug/Kg	4	☼	8270C	Total/NA
Naphthalene	82		65	10	ug/Kg	4	☼	8270C	Total/NA
Phenanthrene	940		65	9.7	ug/Kg	4	☼	8270C	Total/NA
Pyrene	3400		65	9.3	ug/Kg	4	☼	8270C	Total/NA
Lead	40		2.2	0.61	mg/Kg	2	☼	6010B	Total/NA
Antimony	1.5	J	2.2	0.77	mg/Kg	2	☼	6010B	Total/NA
Barium	170		22	0.39	mg/Kg	1	☼	6010B	Total/NA
Beryllium	2.5		1.1	0.12	mg/Kg	2	☼	6010B	Total/NA
Cadmium	0.56		0.43	0.10	mg/Kg	2	☼	6010B	Total/NA
Chromium	920		0.54	0.16	mg/Kg	1	☼	6010B	Total/NA
Cobalt	1.2		1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Copper	31		5.4	0.51	mg/Kg	2	☼	6010B	Total/NA
Nickel	12		8.6	0.50	mg/Kg	2	☼	6010B	Total/NA
Silver	2.9	B	0.54	0.087	mg/Kg	1	☼	6010B	Total/NA
Magnesium	30000		540	50	mg/Kg	1	☼	6010B	Total/NA
Tin	15		11	3.9	mg/Kg	1	☼	6010B	Total/NA
Manganese	5100	B	32	6.7	mg/Kg	20	☼	6010B	Total/NA
Vanadium	240		11	1.8	mg/Kg	2	☼	6010B	Total/NA
Zinc	120		5.4	1.5	mg/Kg	1	☼	6010B	Total/NA
Sodium	430	J	540	68	mg/Kg	1	☼	6010B	Total/NA
Iron	88000		22	15	mg/Kg	2	☼	6010B	Total/NA
Mercury	0.061	J	0.11	0.019	mg/Kg	1	☼	7471A	Total/NA
Cyanide, Total	0.55	J	0.57	0.22	mg/Kg	1	☼	9012A	Total/NA
Sulfide	180		33	16	mg/Kg	1	☼	9034	Total/NA

Client Sample ID: SB06-2-4 — Lab Sample ID: 240-109180-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	13	J	18	4.0	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]pyrene	15	J	18	11	ug/Kg	1	☼	8270C	Total/NA
Benzo[b]fluoranthene	15	J	18	7.7	ug/Kg	1	☼	8270C	Total/NA
Benzo[g,h,i]perylene	12	J	18	8.4	ug/Kg	1	☼	8270C	Total/NA
Chrysene	13	J	18	1.8	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	23		18	5.3	ug/Kg	1	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	13	J	18	8.7	ug/Kg	1	☼	8270C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SB06-2-4 (Continued) — Lab Sample ID: 240-109180-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	15	J	18	2.6	ug/Kg	1	☼	8270C	Total/NA
Pyrene	22		18	2.5	ug/Kg	1	☼	8270C	Total/NA
Arsenic	1.4		0.86	0.27	mg/Kg	1	☼	6010B	Total/NA
Lead	2.5		0.86	0.24	mg/Kg	1	☼	6010B	Total/NA
Barium	2.6	J	17	0.31	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.047	J ^	0.43	0.046	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.059	J	0.17	0.041	mg/Kg	1	☼	6010B	Total/NA
Chromium	4.1		0.43	0.13	mg/Kg	1	☼	6010B	Total/NA
Cobalt	1.4		0.86	0.17	mg/Kg	1	☼	6010B	Total/NA
Copper	1.3	J	2.1	0.20	mg/Kg	1	☼	6010B	Total/NA
Nickel	2.3	J	3.4	0.20	mg/Kg	1	☼	6010B	Total/NA
Silver	0.20	J B	0.43	0.069	mg/Kg	1	☼	6010B	Total/NA
Magnesium	16000		430	39	mg/Kg	1	☼	6010B	Total/NA
Manganese	140	B	1.3	0.26	mg/Kg	1	☼	6010B	Total/NA
Vanadium	8.6		4.3	0.70	mg/Kg	1	☼	6010B	Total/NA
Zinc	12		4.3	1.2	mg/Kg	1	☼	6010B	Total/NA
Sodium	92	J	430	54	mg/Kg	1	☼	6010B	Total/NA
Iron	3500		8.6	5.9	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: SB07-0-2 — Lab Sample ID: 240-109180-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	44		32	4.2	ug/Kg	2	☼	8270C	Total/NA
Acenaphthene	50		32	6.1	ug/Kg	2	☼	8270C	Total/NA
Acenaphthylene	220		32	8.6	ug/Kg	2	☼	8270C	Total/NA
Anthracene	270		32	5.2	ug/Kg	2	☼	8270C	Total/NA
Benzo[a]anthracene	830		32	7.3	ug/Kg	2	☼	8270C	Total/NA
Benzo[a]pyrene	1400		32	20	ug/Kg	2	☼	8270C	Total/NA
Benzo[b]fluoranthene	1900		32	14	ug/Kg	2	☼	8270C	Total/NA
Benzo[g,h,i]perylene	1400		32	15	ug/Kg	2	☼	8270C	Total/NA
Benzo[k]fluoranthene	680		32	15	ug/Kg	2	☼	8270C	Total/NA
Bis(2-ethylhexyl) phthalate	170		150	110	ug/Kg	2	☼	8270C	Total/NA
Carbazole	110		110	41	ug/Kg	2	☼	8270C	Total/NA
Chrysene	1100		32	3.2	ug/Kg	2	☼	8270C	Total/NA
Dibenz(a,h)anthracene	370		32	15	ug/Kg	2	☼	8270C	Total/NA
Dibenzofuran	63	J	110	28	ug/Kg	2	☼	8270C	Total/NA
Fluoranthene	1100		32	9.5	ug/Kg	2	☼	8270C	Total/NA
Fluorene	46		32	5.9	ug/Kg	2	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	1200		32	16	ug/Kg	2	☼	8270C	Total/NA
Naphthalene	77		32	5.2	ug/Kg	2	☼	8270C	Total/NA
Phenanthrene	520		32	4.8	ug/Kg	2	☼	8270C	Total/NA
Pyrene	1100		32	4.6	ug/Kg	2	☼	8270C	Total/NA
Arsenic	5.6		4.9	1.5	mg/Kg	5	☼	6010B	Total/NA
Lead	110		2.0	0.55	mg/Kg	2	☼	6010B	Total/NA
Selenium	4.6	J	7.3	2.3	mg/Kg	5	☼	6010B	Total/NA
Barium	210		20	0.35	mg/Kg	1	☼	6010B	Total/NA
Beryllium	4.0		0.98	0.11	mg/Kg	2	☼	6010B	Total/NA
Cadmium	1.5		0.39	0.094	mg/Kg	2	☼	6010B	Total/NA
Chromium	120		0.49	0.15	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.7		0.98	0.20	mg/Kg	1	☼	6010B	Total/NA
Copper	100		4.9	0.46	mg/Kg	2	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SB07-0-2 (Continued) — Lab Sample ID: 240-109180-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	44		7.8	0.45	mg/Kg	2	☼	6010B	Total/NA
Silver	1.1	B	0.49	0.079	mg/Kg	1	☼	6010B	Total/NA
Magnesium	25000		490	45	mg/Kg	1	☼	6010B	Total/NA
Tin	11		9.8	3.6	mg/Kg	1	☼	6010B	Total/NA
Manganese	4200	B	7.3	1.5	mg/Kg	5	☼	6010B	Total/NA
Vanadium	48		9.8	1.6	mg/Kg	2	☼	6010B	Total/NA
Zinc	340		4.9	1.3	mg/Kg	1	☼	6010B	Total/NA
Sodium	550		490	61	mg/Kg	1	☼	6010B	Total/NA
Iron	67000		20	14	mg/Kg	2	☼	6010B	Total/NA
Mercury	0.13		0.099	0.018	mg/Kg	1	☼	7471A	Total/NA
Cyanide, Total	1.2		0.54	0.20	mg/Kg	1	☼	9012A	Total/NA
Sulfide	230		32	16	mg/Kg	1	☼	9034	Total/NA

Client Sample ID: SB07-4-6 — Lab Sample ID: 240-109180-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	4.6	J	18	2.9	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]anthracene	16	J	18	4.1	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]pyrene	19		18	11	ug/Kg	1	☼	8270C	Total/NA
Benzo[b]fluoranthene	29		18	7.7	ug/Kg	1	☼	8270C	Total/NA
Benzo[g,h,i]perylene	17	J	18	8.4	ug/Kg	1	☼	8270C	Total/NA
Benzo[k]fluoranthene	9.9	J	18	8.2	ug/Kg	1	☼	8270C	Total/NA
Chrysene	24		18	1.8	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	32		18	5.3	ug/Kg	1	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	13	J	18	8.8	ug/Kg	1	☼	8270C	Total/NA
Phenanthrene	20		18	2.7	ug/Kg	1	☼	8270C	Total/NA
Pyrene	30		18	2.5	ug/Kg	1	☼	8270C	Total/NA
Arsenic	1.9		1.1	0.36	mg/Kg	1	☼	6010B	Total/NA
Lead	2.3		1.1	0.32	mg/Kg	1	☼	6010B	Total/NA
Barium	3.4	J	22	0.41	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.057	J	0.22	0.054	mg/Kg	1	☼	6010B	Total/NA
Chromium	4.1		0.56	0.17	mg/Kg	1	☼	6010B	Total/NA
Cobalt	1.1		1.1	0.22	mg/Kg	1	☼	6010B	Total/NA
Copper	2.0	J	2.8	0.27	mg/Kg	1	☼	6010B	Total/NA
Nickel	2.6	J	4.5	0.26	mg/Kg	1	☼	6010B	Total/NA
Silver	0.35	J B	0.56	0.091	mg/Kg	1	☼	6010B	Total/NA
Magnesium	9800		560	52	mg/Kg	1	☼	6010B	Total/NA
Manganese	120	B	1.7	0.35	mg/Kg	1	☼	6010B	Total/NA
Vanadium	9.5		5.6	0.92	mg/Kg	1	☼	6010B	Total/NA
Zinc	11		5.6	1.5	mg/Kg	1	☼	6010B	Total/NA
Sodium	82	J	560	71	mg/Kg	1	☼	6010B	Total/NA
Iron	4200		11	7.8	mg/Kg	1	☼	6010B	Total/NA
Sulfide	21	J	36	18	mg/Kg	1	☼	9034	Total/NA

Client Sample ID: SB09-0-2 — Lab Sample ID: 240-109180-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl acetate	530	J	1200	520	ug/Kg	1	☼	8260C	Total/NA
2-Methylnaphthalene	79		32	4.2	ug/Kg	2	☼	8270C	Total/NA
Acenaphthene	53		32	6.1	ug/Kg	2	☼	8270C	Total/NA
Acenaphthylene	200		32	8.5	ug/Kg	2	☼	8270C	Total/NA
Anthracene	290		32	5.1	ug/Kg	2	☼	8270C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SB09-0-2 (Continued) — Lab Sample ID: 240-109180-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	770		32	7.2	ug/Kg	2	☼	8270C	Total/NA
Benzo[a]pyrene	820		32	20	ug/Kg	2	☼	8270C	Total/NA
Benzo[b]fluoranthene	1400		32	14	ug/Kg	2	☼	8270C	Total/NA
Benzo[g,h,i]perylene	820		32	15	ug/Kg	2	☼	8270C	Total/NA
Benzo[k]fluoranthene	450		32	15	ug/Kg	2	☼	8270C	Total/NA
Bis(2-ethylhexyl) phthalate	170		150	110	ug/Kg	2	☼	8270C	Total/NA
Carbazole	92	J	110	40	ug/Kg	2	☼	8270C	Total/NA
Chrysene	880		32	3.2	ug/Kg	2	☼	8270C	Total/NA
Dibenz(a,h)anthracene	220		32	15	ug/Kg	2	☼	8270C	Total/NA
Dibenzofuran	71	J	110	28	ug/Kg	2	☼	8270C	Total/NA
Fluoranthene	1900		32	9.4	ug/Kg	2	☼	8270C	Total/NA
Fluorene	56		32	5.8	ug/Kg	2	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	690		32	16	ug/Kg	2	☼	8270C	Total/NA
Naphthalene	85		32	5.1	ug/Kg	2	☼	8270C	Total/NA
Phenanthrene	690		32	4.7	ug/Kg	2	☼	8270C	Total/NA
Pyrene	1600		32	4.5	ug/Kg	2	☼	8270C	Total/NA
Arsenic	0.70	J	1.0	0.33	mg/Kg	1	☼	6010B	Total/NA
Lead	56		1.0	0.29	mg/Kg	1	☼	6010B	Total/NA
Antimony	0.39	J	1.0	0.37	mg/Kg	1	☼	6010B	Total/NA
Barium	190		21	0.38	mg/Kg	1	☼	6010B	Total/NA
Beryllium	4.4		1.0	0.11	mg/Kg	2	☼	6010B	Total/NA
Cadmium	0.61		0.21	0.050	mg/Kg	1	☼	6010B	Total/NA
Chromium	62		0.52	0.16	mg/Kg	1	☼	6010B	Total/NA
Cobalt	3.5		1.0	0.21	mg/Kg	1	☼	6010B	Total/NA
Copper	70		5.2	0.49	mg/Kg	2	☼	6010B	Total/NA
Nickel	29		4.1	0.24	mg/Kg	1	☼	6010B	Total/NA
Silver	0.84	B	0.52	0.084	mg/Kg	1	☼	6010B	Total/NA
Magnesium	23000		520	48	mg/Kg	1	☼	6010B	Total/NA
Tin	9.6	J	10	3.8	mg/Kg	1	☼	6010B	Total/NA
Manganese	540	B	1.6	0.32	mg/Kg	1	☼	6010B	Total/NA
Vanadium	23		5.2	0.85	mg/Kg	1	☼	6010B	Total/NA
Zinc	170		5.2	1.4	mg/Kg	1	☼	6010B	Total/NA
Sodium	760		520	65	mg/Kg	1	☼	6010B	Total/NA
Iron	43000		10	7.2	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.12		0.11	0.020	mg/Kg	1	☼	7471A	Total/NA
Cyanide, Total	0.67		0.58	0.22	mg/Kg	1	☼	9012A	Total/NA
Sulfide	330		32	16	mg/Kg	1	☼	9034	Total/NA

Client Sample ID: SB09-3-5 — Lab Sample ID: 240-109180-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	53		17	2.3	ug/Kg	1	☼	8270C	Total/NA
Acenaphthylene	50		17	4.6	ug/Kg	1	☼	8270C	Total/NA
Anthracene	66		17	2.8	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]anthracene	440		17	4.0	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]pyrene	680		17	11	ug/Kg	1	☼	8270C	Total/NA
Benzo[b]fluoranthene	1200		17	7.5	ug/Kg	1	☼	8270C	Total/NA
Benzo[g,h,i]perylene	900		17	8.2	ug/Kg	1	☼	8270C	Total/NA
Benzo[k]fluoranthene	400		17	8.0	ug/Kg	1	☼	8270C	Total/NA
Carbazole	27	J	58	22	ug/Kg	1	☼	8270C	Total/NA
Chrysene	680		17	1.7	ug/Kg	1	☼	8270C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SB09-3-5 (Continued) — Lab Sample ID: 240-109180-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dibenz(a,h)anthracene	280		17	8.0	ug/Kg	1	☼	8270C	Total/NA
Dibenzofuran	33	J	58	15	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	460		17	5.2	ug/Kg	1	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	680		17	8.5	ug/Kg	1	☼	8270C	Total/NA
Naphthalene	55		17	2.8	ug/Kg	1	☼	8270C	Total/NA
Phenanthrene	210		17	2.6	ug/Kg	1	☼	8270C	Total/NA
Pyrene	460		17	2.5	ug/Kg	1	☼	8270C	Total/NA
Arsenic	3.7		0.94	0.30	mg/Kg	1	☼	6010B	Total/NA
Lead	17		0.94	0.27	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.68	J	1.4	0.44	mg/Kg	1	☼	6010B	Total/NA
Barium	11	J	19	0.34	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.20	J ^	0.47	0.051	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.22		0.19	0.045	mg/Kg	1	☼	6010B	Total/NA
Chromium	12		0.47	0.14	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.5		0.94	0.19	mg/Kg	1	☼	6010B	Total/NA
Copper	19		2.4	0.22	mg/Kg	1	☼	6010B	Total/NA
Nickel	8.9		3.8	0.22	mg/Kg	1	☼	6010B	Total/NA
Silver	0.27	J B	0.47	0.076	mg/Kg	1	☼	6010B	Total/NA
Magnesium	590		470	43	mg/Kg	1	☼	6010B	Total/NA
Tin	4.8	J	9.4	3.4	mg/Kg	1	☼	6010B	Total/NA
Manganese	600	B	1.4	0.29	mg/Kg	1	☼	6010B	Total/NA
Vanadium	7.8		4.7	0.77	mg/Kg	1	☼	6010B	Total/NA
Zinc	63		4.7	1.3	mg/Kg	1	☼	6010B	Total/NA
Iron	24000		9.4	6.5	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: SB10-0-2 — Lab Sample ID: 240-109180-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	130		40	5.3	ug/Kg	2.5	☼	8270C	Total/NA
Acenaphthene	59		40	7.7	ug/Kg	2.5	☼	8270C	Total/NA
Acenaphthylene	29	J	40	11	ug/Kg	2.5	☼	8270C	Total/NA
Anthracene	150		40	6.5	ug/Kg	2.5	☼	8270C	Total/NA
Benzaldehyde	63	J	270	62	ug/Kg	2.5	☼	8270C	Total/NA
Benzo[a]anthracene	370		40	9.2	ug/Kg	2.5	☼	8270C	Total/NA
Benzo[a]pyrene	340		40	25	ug/Kg	2.5	☼	8270C	Total/NA
Benzo[b]fluoranthene	490		40	18	ug/Kg	2.5	☼	8270C	Total/NA
Benzo[g,h,i]perylene	240		40	19	ug/Kg	2.5	☼	8270C	Total/NA
Benzo[k]fluoranthene	130		40	19	ug/Kg	2.5	☼	8270C	Total/NA
Carbazole	69	J	130	51	ug/Kg	2.5	☼	8270C	Total/NA
Chrysene	420		40	4.0	ug/Kg	2.5	☼	8270C	Total/NA
Dibenz(a,h)anthracene	63		40	19	ug/Kg	2.5	☼	8270C	Total/NA
Dibenzofuran	120	J	130	35	ug/Kg	2.5	☼	8270C	Total/NA
Fluoranthene	890		40	12	ug/Kg	2.5	☼	8270C	Total/NA
Fluorene	53		40	7.4	ug/Kg	2.5	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	210		40	20	ug/Kg	2.5	☼	8270C	Total/NA
Naphthalene	59		40	6.5	ug/Kg	2.5	☼	8270C	Total/NA
Phenanthrene	990		40	6.0	ug/Kg	2.5	☼	8270C	Total/NA
Pyrene	690		40	5.8	ug/Kg	2.5	☼	8270C	Total/NA
Arsenic	4.9		2.1	0.65	mg/Kg	2	☼	6010B	Total/NA
Lead	29		1.0	0.29	mg/Kg	1	☼	6010B	Total/NA
Selenium	1.4	J	3.1	0.96	mg/Kg	2	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SB10-0-2 (Continued) — Lab Sample ID: 240-109180-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	32		21	0.37	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.28	J ^	0.51	0.055	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.36		0.21	0.049	mg/Kg	1	☼	6010B	Total/NA
Chromium	61		0.51	0.16	mg/Kg	1	☼	6010B	Total/NA
Cobalt	2.5		1.0	0.21	mg/Kg	1	☼	6010B	Total/NA
Copper	28		2.6	0.24	mg/Kg	1	☼	6010B	Total/NA
Nickel	9.2		4.1	0.24	mg/Kg	1	☼	6010B	Total/NA
Silver	0.46	J B	0.51	0.083	mg/Kg	1	☼	6010B	Total/NA
Magnesium	16000		510	47	mg/Kg	1	☼	6010B	Total/NA
Tin	5.0	J	10	3.7	mg/Kg	1	☼	6010B	Total/NA
Manganese	1900	B	3.1	0.64	mg/Kg	2	☼	6010B	Total/NA
Vanadium	28		5.1	0.84	mg/Kg	1	☼	6010B	Total/NA
Zinc	88		5.1	1.4	mg/Kg	1	☼	6010B	Total/NA
Sodium	150	J	510	64	mg/Kg	1	☼	6010B	Total/NA
Iron	19000		10	7.1	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.019	J	0.098	0.018	mg/Kg	1	☼	7471A	Total/NA
Cyanide, Total	0.48	J	0.52	0.20	mg/Kg	1	☼	9012A	Total/NA
Sulfide	41		33	16	mg/Kg	1	☼	9034	Total/NA

Client Sample ID: SB10-4-6 — Lab Sample ID: 240-109180-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	25		18	2.3	ug/Kg	1	☼	8270C	Total/NA
Acenaphthene	17	J	18	3.4	ug/Kg	1	☼	8270C	Total/NA
Anthracene	54		18	2.8	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]anthracene	120		18	4.0	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]pyrene	120		18	11	ug/Kg	1	☼	8270C	Total/NA
Benzo[b]fluoranthene	230		18	7.6	ug/Kg	1	☼	8270C	Total/NA
Benzo[g,h,i]perylene	130		18	8.3	ug/Kg	1	☼	8270C	Total/NA
Benzo[k]fluoranthene	62		18	8.1	ug/Kg	1	☼	8270C	Total/NA
Carbazole	25	J	59	22	ug/Kg	1	☼	8270C	Total/NA
Chrysene	140		18	1.7	ug/Kg	1	☼	8270C	Total/NA
Dibenz(a,h)anthracene	39		18	8.1	ug/Kg	1	☼	8270C	Total/NA
Dibenzofuran	21	J	59	15	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	220		18	5.2	ug/Kg	1	☼	8270C	Total/NA
Fluorene	20		18	3.2	ug/Kg	1	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	100		18	8.6	ug/Kg	1	☼	8270C	Total/NA
Naphthalene	23		18	2.8	ug/Kg	1	☼	8270C	Total/NA
Phenol	45	J	59	9.4	ug/Kg	1	☼	8270C	Total/NA
Phenanthrene	210		18	2.6	ug/Kg	1	☼	8270C	Total/NA
Pyrene	180		18	2.5	ug/Kg	1	☼	8270C	Total/NA
Arsenic	1.7		0.97	0.31	mg/Kg	1	☼	6010B	Total/NA
Lead	4.0		0.97	0.27	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.63	J	1.5	0.46	mg/Kg	1	☼	6010B	Total/NA
Barium	4.9	J	19	0.35	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.078	J	0.19	0.047	mg/Kg	1	☼	6010B	Total/NA
Chromium	44		0.49	0.15	mg/Kg	1	☼	6010B	Total/NA
Cobalt	1.6		0.97	0.19	mg/Kg	1	☼	6010B	Total/NA
Copper	3.8		2.4	0.23	mg/Kg	1	☼	6010B	Total/NA
Nickel	2.8	J	3.9	0.23	mg/Kg	1	☼	6010B	Total/NA
Silver	0.19	J B	0.49	0.079	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB10-4-6 (Continued) — Lab Sample ID: 240-109180-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	14000		490	45	mg/Kg	1	☼	6010B	Total/NA
Manganese	550	B	1.5	0.30	mg/Kg	1	☼	6010B	Total/NA
Vanadium	14		4.9	0.80	mg/Kg	1	☼	6010B	Total/NA
Zinc	17		4.9	1.3	mg/Kg	1	☼	6010B	Total/NA
Sodium	77	J	490	61	mg/Kg	1	☼	6010B	Total/NA
Iron	7100		9.7	6.8	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: SB08-0-2 — Lab Sample ID: 240-109180-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	15	J	340	11	ug/Kg	1	☼	8260C	Total/NA
Ethylbenzene	19	J	340	16	ug/Kg	1	☼	8260C	Total/NA
Methyl acetate	900	J	1700	710	ug/Kg	1	☼	8260C	Total/NA
Tetrachloroethene	51	J	340	20	ug/Kg	1	☼	8260C	Total/NA
2-Methylnaphthalene	64		42	5.5	ug/Kg	2.5	☼	8270C	Total/NA
Acenaphthene	13	J	42	8.1	ug/Kg	2.5	☼	8270C	Total/NA
Acenaphthylene	17	J	42	11	ug/Kg	2.5	☼	8270C	Total/NA
Acetophenone	54	J	280	31	ug/Kg	2.5	☼	8270C	Total/NA
Anthracene	49		42	6.8	ug/Kg	2.5	☼	8270C	Total/NA
Benzaldehyde	69	J	280	65	ug/Kg	2.5	☼	8270C	Total/NA
Benzo[a]anthracene	160		42	9.7	ug/Kg	2.5	☼	8270C	Total/NA
Benzo[a]pyrene	200		42	26	ug/Kg	2.5	☼	8270C	Total/NA
Benzo[b]fluoranthene	340		42	18	ug/Kg	2.5	☼	8270C	Total/NA
Benzo[g,h,i]perylene	170		42	20	ug/Kg	2.5	☼	8270C	Total/NA
Benzo[k]fluoranthene	89		42	20	ug/Kg	2.5	☼	8270C	Total/NA
Chrysene	220		42	4.2	ug/Kg	2.5	☼	8270C	Total/NA
Dibenz(a,h)anthracene	44		42	20	ug/Kg	2.5	☼	8270C	Total/NA
Dibenzofuran	39	J	140	37	ug/Kg	2.5	☼	8270C	Total/NA
Dimethyl phthalate	70	J	200	40	ug/Kg	2.5	☼	8270C	Total/NA
Fluoranthene	370		42	13	ug/Kg	2.5	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	140		42	21	ug/Kg	2.5	☼	8270C	Total/NA
Naphthalene	82		42	6.8	ug/Kg	2.5	☼	8270C	Total/NA
Phenol	23	J	140	23	ug/Kg	2.5	☼	8270C	Total/NA
Phenanthrene	280		42	6.3	ug/Kg	2.5	☼	8270C	Total/NA
Pyrene	310		42	6.1	ug/Kg	2.5	☼	8270C	Total/NA
Lead	170		4.3	1.2	mg/Kg	5	☼	6010B	Total/NA
Antimony	2.2	J	4.3	1.6	mg/Kg	5	☼	6010B	Total/NA
Barium	110		17	0.31	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.88		0.43	0.047	mg/Kg	1	☼	6010B	Total/NA
Cadmium	1.5		0.87	0.21	mg/Kg	5	☼	6010B	Total/NA
Chromium	640		0.43	0.13	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.1		0.87	0.17	mg/Kg	1	☼	6010B	Total/NA
Copper	140		11	1.0	mg/Kg	5	☼	6010B	Total/NA
Nickel	72		17	1.0	mg/Kg	5	☼	6010B	Total/NA
Silver	2.2	B	0.43	0.070	mg/Kg	1	☼	6010B	Total/NA
Magnesium	21000		430	40	mg/Kg	1	☼	6010B	Total/NA
Tin	15		8.7	3.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	11000	B	26	5.4	mg/Kg	20	☼	6010B	Total/NA
Vanadium	200		22	3.6	mg/Kg	5	☼	6010B	Total/NA
Zinc	330		4.3	1.2	mg/Kg	1	☼	6010B	Total/NA
Sodium	260	J	430	54	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SB08-0-2 (Continued) — Lab Sample ID: 240-109180-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	110000		43	30	mg/Kg	5	☼	6010B	Total/NA
Mercury	0.080	J	0.11	0.020	mg/Kg	1	☼	7471A	Total/NA
Cyanide, Total	0.57		0.54	0.20	mg/Kg	1	☼	9012A	Total/NA
Sulfide	90		33	16	mg/Kg	1	☼	9034	Total/NA

Client Sample ID: SB08-2-4 — Lab Sample ID: 240-109180-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	46		16	2.1	ug/Kg	1	☼	8270C	Total/NA
Acenaphthene	83		16	3.1	ug/Kg	1	☼	8270C	Total/NA
Acetophenone	16	J	110	12	ug/Kg	1	☼	8270C	Total/NA
Anthracene	210		16	2.6	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]anthracene	440		16	3.7	ug/Kg	1	☼	8270C	Total/NA
Benzo[a]pyrene	470		16	10	ug/Kg	1	☼	8270C	Total/NA
Benzo[b]fluoranthene	690		16	7.1	ug/Kg	1	☼	8270C	Total/NA
Benzo[g,h,i]perylene	400		16	7.8	ug/Kg	1	☼	8270C	Total/NA
Benzo[k]fluoranthene	260		16	7.6	ug/Kg	1	☼	8270C	Total/NA
Carbazole	95		55	21	ug/Kg	1	☼	8270C	Total/NA
Chrysene	550		16	1.6	ug/Kg	1	☼	8270C	Total/NA
Dibenz(a,h)anthracene	110		16	7.6	ug/Kg	1	☼	8270C	Total/NA
Dibenzofuran	59		55	14	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	990		16	4.9	ug/Kg	1	☼	8270C	Total/NA
Fluorene	78		16	3.0	ug/Kg	1	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	330		16	8.0	ug/Kg	1	☼	8270C	Total/NA
Naphthalene	100		16	2.6	ug/Kg	1	☼	8270C	Total/NA
Phenanthrene	720		16	2.4	ug/Kg	1	☼	8270C	Total/NA
Pyrene	810		16	2.3	ug/Kg	1	☼	8270C	Total/NA
Arsenic	5.9	J	8.8	2.8	mg/Kg	10	☼	6010B	Total/NA
Lead	32		1.8	0.50	mg/Kg	2	☼	6010B	Total/NA
Thallium	4.8	J	8.8	3.5	mg/Kg	10	☼	6010B	Total/NA
Antimony	0.79	J	1.8	0.63	mg/Kg	2	☼	6010B	Total/NA
Barium	31		18	0.32	mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.34	J	0.44	0.048	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.50		0.35	0.084	mg/Kg	2	☼	6010B	Total/NA
Chromium	320		4.4	1.3	mg/Kg	10	☼	6010B	Total/NA
Cobalt	3.0		0.88	0.18	mg/Kg	1	☼	6010B	Total/NA
Copper	58		4.4	0.42	mg/Kg	2	☼	6010B	Total/NA
Nickel	34		7.0	0.41	mg/Kg	2	☼	6010B	Total/NA
Magnesium	7000		440	41	mg/Kg	1	☼	6010B	Total/NA
Tin	10		8.8	3.2	mg/Kg	1	☼	6010B	Total/NA
Manganese	6100		13	2.7	mg/Kg	10	☼	6010B	Total/NA
Vanadium	42		8.8	1.4	mg/Kg	2	☼	6010B	Total/NA
Zinc	100		4.4	1.2	mg/Kg	1	☼	6010B	Total/NA
Sodium	73	J	440	55	mg/Kg	1	☼	6010B	Total/NA
Iron	50000		88	61	mg/Kg	10	☼	6010B	Total/NA
Mercury	0.038	J	0.11	0.019	mg/Kg	1	☼	7471A	Total/NA
Cyanide, Total	0.22	J	0.57	0.22	mg/Kg	1	☼	9012A	Total/NA
Sulfide	19	J	33	16	mg/Kg	1	☼	9034	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: IMW-02-00001R — Lab Sample ID: 240-109180-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	12		10	4.1	ug/L	1		6010B	Total Recoverable
Barium	32	J	200	1.3	ug/L	1		6010B	Total Recoverable
Cadmium	0.41	J	2.0	0.20	ug/L	1		6010B	Total Recoverable
Cobalt	0.93	J	10	0.75	ug/L	1		6010B	Total Recoverable
Chromium	20		5.0	0.63	ug/L	1		6010B	Total Recoverable
Copper	17	J	25	3.5	ug/L	1		6010B	Total Recoverable
Magnesium	18000		5000	780	ug/L	1		6010B	Total Recoverable
Manganese	440		15	2.1	ug/L	1		6010B	Total Recoverable
Nickel	6.8	J	40	2.2	ug/L	1		6010B	Total Recoverable
Lead	23		5.0	2.8	ug/L	1		6010B	Total Recoverable
Thallium	4.0	J	10	2.7	ug/L	1		6010B	Total Recoverable
Vanadium	12	J	50	5.6	ug/L	1		6010B	Total Recoverable
Zinc	54		50	9.7	ug/L	1		6010B	Total Recoverable
Sodium	14000		5000	560	ug/L	1		6010B	Total Recoverable
Iron	5400		100	26	ug/L	1		6010B	Total Recoverable

Client Sample ID: 9584-030719-0003 — Lab Sample ID: 240-109180-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.1	J	10	4.1	ug/L	1		6010B	Total Recoverable
Barium	16	J	200	1.3	ug/L	1		6010B	Total Recoverable
Chromium	0.96	J	5.0	0.63	ug/L	1		6010B	Total Recoverable
Magnesium	14000		5000	780	ug/L	1		6010B	Total Recoverable
Manganese	260		15	2.1	ug/L	1		6010B	Total Recoverable
Vanadium	5.6	J	50	5.6	ug/L	1		6010B	Total Recoverable
Sodium	13000		5000	560	ug/L	1		6010B	Total Recoverable
Iron	630		100	26	ug/L	1		6010B	Total Recoverable

Client Sample ID: IFW-02-00022R — Lab Sample ID: 240-109180-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3.6		1.0	0.13	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.17	J	1.0	0.16	ug/L	1		8260C	Total/NA
Cyclohexane	1.7		1.0	0.24	ug/L	1		8260C	Total/NA
Ethylbenzene	0.13	J	1.0	0.11	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: IFW-02-00022R (Continued) — Lab Sample ID: 240-109180-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Isopropylbenzene	10		1.0	0.090	ug/L	1		8260C	Total/NA
Methylcyclohexane	3.3		1.0	0.33	ug/L	1		8260C	Total/NA

Client Sample ID: 9584-030819-0004 — Lab Sample ID: 240-109180-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3.4		1.0	0.13	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.16	J	1.0	0.16	ug/L	1		8260C	Total/NA
Cyclohexane	1.8		1.0	0.24	ug/L	1		8260C	Total/NA
Ethylbenzene	0.13	J	1.0	0.11	ug/L	1		8260C	Total/NA
Isopropylbenzene	10		1.0	0.090	ug/L	1		8260C	Total/NA
Methylcyclohexane	3.6		1.0	0.33	ug/L	1		8260C	Total/NA

Client Sample ID: IMW-02-0004S — Lab Sample ID: 240-109180-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	28		1.0	0.16	ug/L	1		8260C	Total/NA
Tetrachloroethene	12		1.0	0.15	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	0.68	J	1.0	0.19	ug/L	1		8260C	Total/NA
Trichloroethene	4.1		1.0	0.10	ug/L	1		8260C	Total/NA
Vinyl chloride	0.31	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: TRIP BLANK 1 — Lab Sample ID: 240-109180-30

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB01-0-2

Date Collected: 03/05/19 08:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-1

Matrix: Solid
Percent Solids: 91.3

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	280	U	280	16	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
1,1,2,2-Tetrachloroethane	280	U	280	16	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	280	U	280	75	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
1,1,2-Trichloroethane	280	U	280	15	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
1,1-Dichloroethane	280	U	280	10	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
1,1-Dichloroethene	280	U	280	17	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
1,2,4-Trichlorobenzene	280	U	280	150	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
1,2-Dibromo-3-Chloropropane	560	U *	560	99	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Ethylene Dibromide	280	U *	280	89	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
1,2-Dichlorobenzene	280	U	280	24	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
1,2-Dichloroethane	280	U	280	14	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
1,2-Dichloropropane	280	U	280	9.0	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
1,3-Dichlorobenzene	280	U	280	24	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
1,4-Dichlorobenzene	280	U	280	19	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
2-Butanone (MEK)	1100	U	1100	180	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
2-Hexanone	1100	U	1100	300	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
4-Methyl-2-pentanone (MIBK)	1100	U	1100	270	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Acetone	1100	U	1100	270	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Benzene	280	U	280	9.0	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Dichlorobromomethane	280	U	280	32	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Bromoform	280	U	280	120	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Bromomethane	280	U	280	190	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Carbon disulfide	280	U	280	120	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Carbon tetrachloride	280	U	280	20	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Chlorobenzene	280	U	280	39	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Chloroethane	280	U	280	170	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Chloroform	280	U	280	10	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Chloromethane	280	U	280	74	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
cis-1,2-Dichloroethene	280	U	280	10	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
cis-1,3-Dichloropropene	280	U *	280	42	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Cyclohexane	560	U	560	180	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Chlorodibromomethane	280	U *	280	130	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Dichlorodifluoromethane	280	U	280	60	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Ethylbenzene	280	U	280	14	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Isopropylbenzene	280	U	280	43	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Methyl acetate	1400	U	1400	590	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Methyl tert-butyl ether	280	U	280	42	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Methylcyclohexane	560	U	560	74	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Methylene Chloride	560	U	560	430	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Styrene	280	U	280	14	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Tetrachloroethene	**77**	**J**	280	17	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Toluene	280	U	280	51	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
trans-1,2-Dichloroethene	280	U	280	17	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
trans-1,3-Dichloropropene	280	U *	280	120	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Trichloroethene	280	U	280	15	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Trichlorofluoromethane	280	U	280	52	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Vinyl chloride	280	U	280	11	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Xylenes, Total	560	U	560	26	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1
Naphthalene	280	U	280	130	ug/Kg	☼	03/13/19 11:20	03/14/19 12:10	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB01-0-2

Date Collected: 03/05/19 08:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-1

Matrix: Solid
Percent Solids: 91.3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*91*		*49 - 147*	*03/13/19 11:20*	*03/14/19 12:10*	*1*
Dibromofluoromethane (Surr)	*92*		*49 - 138*	*03/13/19 11:20*	*03/14/19 12:10*	*1*
4-Bromofluorobenzene (Surr)	*100*		*48 - 151*	*03/13/19 11:20*	*03/14/19 12:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*112*		*53 - 155*	*03/13/19 11:20*	*03/14/19 12:10*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	270	U	270	92	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
bis (2-chloroisopropyl) ether	540	U	540	54	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
2,4,5-Trichlorophenol	810	U	810	370	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
2,4,6-Trichlorophenol	810	U	810	350	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
2,4-Dichlorophenol	810	U	810	240	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
2,4-Dimethylphenol	810	U	810	220	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
2,4-Dinitrophenol	1800	U	1800	770	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
2,4-Dinitrotoluene	1100	U	1100	340	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
2,6-Dinitrotoluene	1100	U	1100	300	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
2-Chloronaphthalene	270	U	270	76	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
2-Chlorophenol	270	U	270	54	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
2-Methylnaphthalene	**52**	**J**	81	11	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
2-Methylphenol	1100	U	1100	170	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
2-Nitroaniline	1100	U	1100	220	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
2-Nitrophenol	270	U	270	70	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
3,3'-Dichlorobenzidine	540	U	540	230	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
3-Nitroaniline	1100	U	1100	270	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
4,6-Dinitro-2-methylphenol	1800	U	1800	430	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
4-Bromophenyl phenyl ether	270	U	270	76	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
4-Chloro-3-methylphenol	810	U	810	240	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
4-Chloroaniline	810	U	810	160	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
4-Chlorophenyl phenyl ether	270	U	270	76	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
4-Nitroaniline	1100	U	1100	330	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
4-Nitrophenol	1800	U	1800	510	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Acenaphthene	**64**	**J**	81	16	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Acenaphthylene	81	U	81	22	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Acetophenone	540	U	540	60	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Anthracene	**130**		81	13	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Atrazine	1100	U	1100	200	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Benzaldehyde	540	U	540	120	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Benzo[a]anthracene	**220**		81	18	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Benzo[a]pyrene	**250**		81	51	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Benzo[b]fluoranthene	**250**		81	35	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Benzo[g,h,i]perylene	**360**		81	39	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Benzo[k]fluoranthene	81	U	81	38	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Bis(2-chloroethoxy)methane	540	U	540	65	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Bis(2-chloroethyl)ether	540	U	540	65	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Bis(2-ethylhexyl) phthalate	380	U	380	280	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Butyl benzyl phthalate	380	U	380	120	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Caprolactam	1800	U	1800	410	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Carbazole	270	U	270	100	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Chrysene	**280**		81	8.1	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Dibenz(a,h)anthracene	81	U	81	38	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5

Client Sample ID: SB01-0-2

Date Collected: 03/05/19 08:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-1

Matrix: Solid
Percent Solids: 91.3

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	270	U	270	70	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Diethyl phthalate	380	U	380	170	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Dimethyl phthalate	380	U	380	76	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Di-n-butyl phthalate	380	U	380	120	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Di-n-octyl phthalate	380	U	380	150	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Fluoranthene	**570**		81	24	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Fluorene	**55**	**J**	81	15	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Hexachlorobenzene	81	U	81	15	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Hexachlorobutadiene	270	U	270	65	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Hexachlorocyclopentadiene	1800	U	1800	340	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Hexachloroethane	270	U	270	49	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Indeno[1,2,3-cd]pyrene	**150**		81	40	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Isophorone	270	U	270	65	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Naphthalene	**86**		81	13	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Nitrobenzene	540	U	540	70	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
N-Nitrosodi-n-propylamine	270	U	270	60	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
N-Nitrosodiphenylamine	270	U	270	65	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Pentachlorophenol	810	U	810	310	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Phenol	270	U	270	43	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Phenanthrene	**510**		81	12	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
Pyrene	**530**		81	12	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5
3 & 4 Methylphenol	2200	U	2200	160	ug/Kg	☼	03/11/19 07:19	03/18/19 20:23	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*80*		*32 - 120*	*03/11/19 07:19*	*03/18/19 20:23*	*5*
2-Fluorophenol (Surr)	*77*		*29 - 120*	*03/11/19 07:19*	*03/18/19 20:23*	*5*
2,4,6-Tribromophenol (Surr)	*33*		*10 - 120*	*03/11/19 07:19*	*03/18/19 20:23*	*5*
Nitrobenzene-d5 (Surr)	*72*		*30 - 120*	*03/11/19 07:19*	*03/18/19 20:23*	*5*
Phenol-d5 (Surr)	*65*		*29 - 120*	*03/11/19 07:19*	*03/18/19 20:23*	*5*
Terphenyl-d14 (Surr)	*89*		*41 - 120*	*03/11/19 07:19*	*03/18/19 20:23*	*5*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.8**	**J**	5.3	1.7	mg/Kg	☼	03/11/19 14:00	03/13/19 12:21	5
Lead	**29**		1.1	0.30	mg/Kg	☼	03/11/19 14:00	03/12/19 16:54	1
Selenium	7.9	U	7.9	2.5	mg/Kg	☼	03/11/19 14:00	03/13/19 12:21	5
Thallium	5.3	U	5.3	2.1	mg/Kg	☼	03/11/19 14:00	03/13/19 12:21	5
Antimony	**0.71**	**J**	1.1	0.38	mg/Kg	☼	03/11/19 14:00	03/12/19 16:54	1
Barium	**100**		21	0.38	mg/Kg	☼	03/11/19 14:00	03/12/19 16:54	1
Beryllium	**0.41**	**J ^**	0.53	0.057	mg/Kg	☼	03/11/19 14:00	03/12/19 16:54	1
Cadmium	**0.24**		0.21	0.051	mg/Kg	☼	03/11/19 14:00	03/12/19 16:54	1
Chromium	**210**		0.53	0.16	mg/Kg	☼	03/11/19 14:00	03/12/19 16:54	1
Cobalt	**2.2**		1.1	0.21	mg/Kg	☼	03/11/19 14:00	03/12/19 16:54	1
Copper	**16**		2.6	0.25	mg/Kg	☼	03/11/19 14:00	03/12/19 16:54	1
Nickel	**9.3**		4.2	0.25	mg/Kg	☼	03/11/19 14:00	03/12/19 16:54	1
Silver	**0.91**	**B**	0.53	0.085	mg/Kg	☼	03/11/19 14:00	03/12/19 16:54	1
Magnesium	**22000**		530	49	mg/Kg	☼	03/11/19 14:00	03/12/19 16:54	1
Tin	**5.0**	**J**	11	3.8	mg/Kg	☼	03/11/19 14:00	03/12/19 16:54	1
Manganese	**4100**	**B**	7.9	1.6	mg/Kg	☼	03/11/19 14:00	03/13/19 12:21	5
Vanadium	**110**		5.3	0.87	mg/Kg	☼	03/11/19 14:00	03/12/19 16:54	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB01-0-2

Date Collected: 03/05/19 08:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-1

Matrix: Solid
Percent Solids: 91.3

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	88		5.3	1.4	mg/Kg	☼	03/11/19 14:00	03/12/19 16:54	1
Sodium	220	J	530	66	mg/Kg	☼	03/11/19 14:00	03/12/19 16:54	1
Iron	44000		11	7.3	mg/Kg	☼	03/11/19 14:00	03/12/19 16:54	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.12	U	0.12	0.022	mg/Kg	☼	03/11/19 16:00	03/13/19 10:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.43	J	0.60	0.23	mg/Kg	☼	03/11/19 13:18	03/11/19 15:39	1
Sulfide	63		33	16	mg/Kg	☼	03/11/19 09:23	03/11/19 11:35	1
Percent Solids	91.3		0.1	0.1	%			03/11/19 17:03	1
Percent Moisture	8.7		0.1	0.1	%			03/11/19 17:03	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB01-5-7

Date Collected: 03/05/19 09:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-2

Matrix: Solid
Percent Solids: 92.3

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	270	U	270	15	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
1,1,2,2-Tetrachloroethane	270	U	270	15	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	270	U	270	73	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
1,1,2-Trichloroethane	270	U	270	14	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
1,1-Dichloroethane	270	U	270	9.8	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
1,1-Dichloroethene	270	U	270	16	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
1,2,4-Trichlorobenzene	270	U	270	150	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
1,2-Dibromo-3-Chloropropane	550	U *	550	96	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Ethylene Dibromide	270	U *	270	86	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
1,2-Dichlorobenzene	270	U	270	23	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
1,2-Dichloroethane	270	U	270	13	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
1,2-Dichloropropane	270	U	270	8.7	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
1,3-Dichlorobenzene	270	U	270	23	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
1,4-Dichlorobenzene	270	U	270	19	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
2-Butanone (MEK)	1100	U	1100	170	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
2-Hexanone	1100	U	1100	290	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
4-Methyl-2-pentanone (MIBK)	1100	U	1100	260	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Acetone	1100	U	1100	270	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Benzene	270	U	270	8.7	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Dichlorobromomethane	270	U	270	31	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Bromoform	270	U	270	120	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Bromomethane	270	U	270	180	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Carbon disulfide	270	U	270	120	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Carbon tetrachloride	270	U	270	20	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Chlorobenzene	270	U	270	38	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Chloroethane	270	U	270	160	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Chloroform	270	U	270	9.8	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Chloromethane	270	U	270	72	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
cis-1,2-Dichloroethene	270	U	270	9.8	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
cis-1,3-Dichloropropene	270	U *	270	40	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Cyclohexane	550	U	550	180	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Chlorodibromomethane	270	U *	270	130	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Dichlorodifluoromethane	270	U	270	58	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Ethylbenzene	270	U	270	13	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Isopropylbenzene	270	U	270	41	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Methyl acetate	1400	U	1400	570	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Methyl tert-butyl ether	270	U	270	40	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Methylcyclohexane	550	U	550	72	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Methylene Chloride	550	U	550	420	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Styrene	270	U	270	13	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Tetrachloroethene	270	U	270	16	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Toluene	270	U	270	49	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
trans-1,2-Dichloroethene	270	U	270	16	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
trans-1,3-Dichloropropene	270	U *	270	110	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Trichloroethene	270	U	270	14	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Trichlorofluoromethane	270	U	270	50	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Vinyl chloride	270	U	270	11	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Xylenes, Total	550	U	550	25	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1
Naphthalene	270	U	270	130	ug/Kg	☼	03/13/19 11:20	03/14/19 12:31	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB01-5-7

Date Collected: 03/05/19 09:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-2

Matrix: Solid
Percent Solids: 92.3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*94*		*49 - 147*	*03/13/19 11:20*	*03/14/19 12:31*	*1*
Dibromofluoromethane (Surr)	*94*		*49 - 138*	*03/13/19 11:20*	*03/14/19 12:31*	*1*
4-Bromofluorobenzene (Surr)	*101*		*48 - 151*	*03/13/19 11:20*	*03/14/19 12:31*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*53 - 155*	*03/13/19 11:20*	*03/14/19 12:31*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	54	U	54	18	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
bis (2-chloroisopropyl) ether	110	U	110	11	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
2,4,5-Trichlorophenol	160	U	160	75	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
2,4,6-Trichlorophenol	160	U	160	70	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
2,4-Dichlorophenol	160	U	160	48	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
2,4-Dimethylphenol	160	U	160	44	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
2,4-Dinitrophenol	360	U	360	150	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
2,4-Dinitrotoluene	220	U	220	67	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
2,6-Dinitrotoluene	220	U	220	61	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
2-Chloronaphthalene	54	U	54	15	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
2-Chlorophenol	54	U	54	11	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
2-Methylnaphthalene	**24**		16	2.1	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
2-Methylphenol	220	U	220	34	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
2-Nitroaniline	220	U	220	44	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
2-Nitrophenol	54	U	54	14	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
3,3'-Dichlorobenzidine	110	U	110	47	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
3-Nitroaniline	220	U	220	53	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
4,6-Dinitro-2-methylphenol	360	U	360	87	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
4-Bromophenyl phenyl ether	54	U	54	15	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
4-Chloro-3-methylphenol	160	U	160	49	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
4-Chloroaniline	160	U	160	33	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
4-Chlorophenyl phenyl ether	54	U	54	15	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
4-Nitroaniline	220	U	220	65	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
4-Nitrophenol	360	U	360	100	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Acenaphthene	16	U	16	3.1	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Acenaphthylene	16	U	16	4.4	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Acetophenone	110	U	110	12	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Anthracene	**49**		16	2.6	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Atrazine	220	U	220	39	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Benzaldehyde	110	U	110	25	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Benzo[a]anthracene	16	U	16	3.7	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Benzo[a]pyrene	**97**		16	10	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Benzo[b]fluoranthene	**58**		16	7.1	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Benzo[g,h,i]perylene	**450**		16	7.7	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Benzo[k]fluoranthene	16	U	16	7.5	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Bis(2-chloroethoxy)methane	110	U	110	13	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Bis(2-chloroethyl)ether	110	U	110	13	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Bis(2-ethylhexyl) phthalate	76	U	76	55	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Butyl benzyl phthalate	76	U	76	24	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Caprolactam	360	U	360	82	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Carbazole	54	U	54	21	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Chrysene	16	U	16	1.6	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Dibenz(a,h)anthracene	16	U	16	7.5	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB01-5-7

Date Collected: 03/05/19 09:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-2

Matrix: Solid
Percent Solids: 92.3

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	54	U	54	14	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Diethyl phthalate	76	U	76	34	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Dimethyl phthalate	76	U	76	15	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Di-n-butyl phthalate	76	U	76	24	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Di-n-octyl phthalate	76	U	76	30	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Fluoranthene	**20**		16	4.8	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Fluorene	16	U	16	3.0	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Hexachlorobenzene	16	U	16	3.1	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Hexachlorobutadiene	54	U	54	13	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Hexachlorocyclopentadiene	360	U	360	67	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Hexachloroethane	54	U	54	9.8	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Indeno[1,2,3-cd]pyrene	16	U	16	8.0	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Isophorone	54	U	54	13	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Naphthalene	**11**	**J**	16	2.6	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Nitrobenzene	110	U	110	14	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
N-Nitrosodi-n-propylamine	54	U	54	12	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
N-Nitrosodiphenylamine	54	U	54	13	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Pentachlorophenol	160	U	160	63	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Phenol	54	U	54	8.7	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Phenanthrene	**28**		16	2.4	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
Pyrene	**51**		16	2.3	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1
3 & 4 Methylphenol	440	U	440	32	ug/Kg	☼	03/11/19 07:19	03/18/19 20:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*72*		*32 - 120*	*03/11/19 07:19*	*03/18/19 20:47*	*1*
2-Fluorophenol (Surr)	*74*		*29 - 120*	*03/11/19 07:19*	*03/18/19 20:47*	*1*
2,4,6-Tribromophenol (Surr)	*62*		*10 - 120*	*03/11/19 07:19*	*03/18/19 20:47*	*1*
Nitrobenzene-d5 (Surr)	*70*		*30 - 120*	*03/11/19 07:19*	*03/18/19 20:47*	*1*
Phenol-d5 (Surr)	*72*		*29 - 120*	*03/11/19 07:19*	*03/18/19 20:47*	*1*
Terphenyl-d14 (Surr)	*84*		*41 - 120*	*03/11/19 07:19*	*03/18/19 20:47*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.3**		1.0	0.32	mg/Kg	☼	03/11/19 14:00	03/12/19 16:58	1
Lead	**8.4**		1.0	0.29	mg/Kg	☼	03/11/19 14:00	03/12/19 16:58	1
Selenium	1.5	U	1.5	0.48	mg/Kg	☼	03/11/19 14:00	03/12/19 16:58	1
Thallium	1.0	U	1.0	0.41	mg/Kg	☼	03/11/19 14:00	03/12/19 16:58	1
Antimony	1.0	U	1.0	0.37	mg/Kg	☼	03/11/19 14:00	03/12/19 16:58	1
Barium	**17**	**J**	20	0.37	mg/Kg	☼	03/11/19 14:00	03/12/19 16:58	1
Beryllium	0.51	U ^	0.51	0.055	mg/Kg	☼	03/11/19 14:00	03/12/19 16:58	1
Cadmium	**0.089**	**J**	0.20	0.049	mg/Kg	☼	03/11/19 14:00	03/12/19 16:58	1
Chromium	**7.8**		0.51	0.15	mg/Kg	☼	03/11/19 14:00	03/12/19 16:58	1
Cobalt	**1.8**		1.0	0.20	mg/Kg	☼	03/11/19 14:00	03/12/19 16:58	1
Copper	**6.1**		2.6	0.24	mg/Kg	☼	03/11/19 14:00	03/12/19 16:58	1
Nickel	**3.7**	**J**	4.1	0.24	mg/Kg	☼	03/11/19 14:00	03/12/19 16:58	1
Silver	**0.26**	**J B**	0.51	0.083	mg/Kg	☼	03/11/19 14:00	03/12/19 16:58	1
Magnesium	**15000**		510	47	mg/Kg	☼	03/11/19 14:00	03/12/19 16:58	1
Tin	10	U	10	3.7	mg/Kg	☼	03/11/19 14:00	03/12/19 16:58	1
Manganese	**160**	**B**	1.5	0.32	mg/Kg	☼	03/11/19 14:00	03/12/19 16:58	1
Vanadium	**9.0**		5.1	0.84	mg/Kg	☼	03/11/19 14:00	03/12/19 16:58	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB01-5-7

Date Collected: 03/05/19 09:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-2

Matrix: Solid
Percent Solids: 92.3

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	26		5.1	1.4	mg/Kg	☼	03/11/19 14:00	03/12/19 16:58	1
Sodium	100	J	510	64	mg/Kg	☼	03/11/19 14:00	03/12/19 16:58	1
Iron	5400		10	7.1	mg/Kg	☼	03/11/19 14:00	03/12/19 16:58	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.12	U	0.12	0.021	mg/Kg	☼	03/11/19 16:00	03/13/19 10:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.56	U	0.56	0.21	mg/Kg	☼	03/11/19 13:18	03/11/19 15:45	1
Sulfide	49		32	16	mg/Kg	☼	03/11/19 09:23	03/11/19 11:35	1
Percent Solids	92.3		0.1	0.1	%			03/11/19 17:03	1
Percent Moisture	7.7		0.1	0.1	%			03/11/19 17:03	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB02-0-2

Date Collected: 03/05/19 09:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-3

Matrix: Solid
Percent Solids: 93.2

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	270	U	270	15	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
1,1,2,2-Tetrachloroethane	270	U	270	15	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	270	U	270	72	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
1,1,2-Trichloroethane	270	U	270	14	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
1,1-Dichloroethane	270	U	270	9.6	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
1,1-Dichloroethene	270	U	270	16	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
1,2,4-Trichlorobenzene	270	U	270	140	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
1,2-Dibromo-3-Chloropropane	540	U *	540	94	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Ethylene Dibromide	270	U *	270	85	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
1,2-Dichlorobenzene	270	U	270	23	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
1,2-Dichloroethane	270	U	270	13	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
1,2-Dichloropropane	270	U	270	8.6	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
1,3-Dichlorobenzene	270	U	270	23	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
1,4-Dichlorobenzene	270	U	270	18	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
2-Butanone (MEK)	1100	U	1100	170	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
2-Hexanone	1100	U	1100	280	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
4-Methyl-2-pentanone (MIBK)	1100	U	1100	260	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Acetone	1100	U	1100	260	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Benzene	270	U	270	8.6	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Dichlorobromomethane	270	U	270	30	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Bromoform	270	U	270	110	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Bromomethane	270	U	270	180	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Carbon disulfide	270	U	270	120	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Carbon tetrachloride	270	U	270	19	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Chlorobenzene	270	U	270	38	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Chloroethane	270	U	270	160	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Chloroform	270	U	270	9.6	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Chloromethane	270	U	270	71	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
cis-1,2-Dichloroethene	270	U	270	9.6	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
cis-1,3-Dichloropropene	270	U *	270	40	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Cyclohexane	540	U	540	170	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Chlorodibromomethane	270	U *	270	130	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Dichlorodifluoromethane	270	U	270	57	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Ethylbenzene	270	U	270	13	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Isopropylbenzene	270	U	270	41	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Methyl acetate	1300	U	1300	560	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Methyl tert-butyl ether	270	U	270	40	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Methylcyclohexane	540	U	540	71	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Methylene Chloride	540	U	540	410	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Styrene	270	U	270	13	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Tetrachloroethene	270	U	270	16	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Toluene	270	U	270	48	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
trans-1,2-Dichloroethene	270	U	270	16	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
trans-1,3-Dichloropropene	270	U *	270	110	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Trichloroethene	270	U	270	14	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Trichlorofluoromethane	270	U	270	49	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Vinyl chloride	270	U	270	11	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Xylenes, Total	540	U	540	25	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1
Naphthalene	270	U	270	130	ug/Kg	☼	03/13/19 11:20	03/14/19 12:52	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB02-0-2

Date Collected: 03/05/19 09:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-3

Matrix: Solid
Percent Solids: 93.2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*93*		*49 - 147*	*03/13/19 11:20*	*03/14/19 12:52*	*1*
Dibromofluoromethane (Surr)	*95*		*49 - 138*	*03/13/19 11:20*	*03/14/19 12:52*	*1*
4-Bromofluorobenzene (Surr)	*102*		*48 - 151*	*03/13/19 11:20*	*03/14/19 12:52*	*1*
1,2-Dichloroethane-d4 (Surr)	*110*		*53 - 155*	*03/13/19 11:20*	*03/14/19 12:52*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	54	U	54	18	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
bis (2-chloroisopropyl) ether	110	U	110	11	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
2,4,5-Trichlorophenol	160	U	160	74	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
2,4,6-Trichlorophenol	160	U	160	69	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
2,4-Dichlorophenol	160	U	160	47	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
2,4-Dimethylphenol	160	U	160	43	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
2,4-Dinitrophenol	350	U	350	150	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
2,4-Dinitrotoluene	220	U	220	67	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
2,6-Dinitrotoluene	220	U	220	60	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
2-Chloronaphthalene	54	U	54	15	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
2-Chlorophenol	54	U	54	11	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
2-Methylnaphthalene	**28**		16	2.1	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
2-Methylphenol	220	U	220	33	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
2-Nitroaniline	220	U	220	43	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
2-Nitrophenol	54	U	54	14	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
3,3'-Dichlorobenzidine	110	U	110	46	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
3-Nitroaniline	220	U	220	53	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
4,6-Dinitro-2-methylphenol	350	U	350	86	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
4-Bromophenyl phenyl ether	54	U	54	15	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
4-Chloro-3-methylphenol	160	U	160	48	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
4-Chloroaniline	160	U	160	32	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
4-Chlorophenyl phenyl ether	54	U	54	15	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
4-Nitroaniline	220	U	220	65	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
4-Nitrophenol	350	U	350	100	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Acenaphthene	16	U	16	3.1	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Acenaphthylene	**4.5**	**J**	16	4.3	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Acetophenone	110	U	110	12	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Anthracene	**14**	**J**	16	2.6	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Atrazine	220	U	220	39	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Benzaldehyde	110	U	110	25	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Benzo[a]anthracene	**62**		16	3.7	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Benzo[a]pyrene	**58**		16	10	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Benzo[b]fluoranthene	**120**		16	7.0	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Benzo[g,h,i]perylene	**67**		16	7.6	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Benzo[k]fluoranthene	**29**		16	7.5	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Bis(2-chloroethoxy)methane	110	U	110	13	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Bis(2-chloroethyl)ether	110	U	110	13	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Bis(2-ethylhexyl) phthalate	**56**	**J**	75	55	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Butyl benzyl phthalate	75	U	75	24	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Caprolactam	350	U	350	81	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Carbazole	54	U	54	20	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Chrysene	**88**		16	1.6	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Dibenz(a,h)anthracene	16	U	16	7.4	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1

Client Sample ID: SB02-0-2

Date Collected: 03/05/19 09:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-3

Matrix: Solid
Percent Solids: 93.2

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	54	U	54	14	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Diethyl phthalate	75	U	75	33	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Dimethyl phthalate	75	U	75	15	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Di-n-butyl phthalate	75	U	75	24	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Di-n-octyl phthalate	75	U	75	30	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Fluoranthene	**130**		16	4.8	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Fluorene	16	U	16	2.9	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Hexachlorobenzene	16	U	16	3.1	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Hexachlorobutadiene	54	U	54	13	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Hexachlorocyclopentadiene	350	U	350	67	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Hexachloroethane	54	U	54	9.7	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Indeno[1,2,3-cd]pyrene	**44**		16	7.9	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Isophorone	54	U	54	13	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Naphthalene	**24**		16	2.6	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Nitrobenzene	110	U	110	14	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
N-Nitrosodi-n-propylamine	54	U	54	12	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
N-Nitrosodiphenylamine	54	U	54	13	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Pentachlorophenol	160	U	160	62	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Phenol	54	U	54	8.6	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Phenanthrene	**71**		16	2.4	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
Pyrene	**150**		16	2.3	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1
3 & 4 Methylphenol	430	U	430	31	ug/Kg	☼	03/11/19 07:19	03/18/19 17:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*75*		*32 - 120*	*03/11/19 07:19*	*03/18/19 17:59*	*1*
2-Fluorophenol (Surr)	*78*		*29 - 120*	*03/11/19 07:19*	*03/18/19 17:59*	*1*
2,4,6-Tribromophenol (Surr)	*69*		*10 - 120*	*03/11/19 07:19*	*03/18/19 17:59*	*1*
Nitrobenzene-d5 (Surr)	*66*		*30 - 120*	*03/11/19 07:19*	*03/18/19 17:59*	*1*
Phenol-d5 (Surr)	*76*		*29 - 120*	*03/11/19 07:19*	*03/18/19 17:59*	*1*
Terphenyl-d14 (Surr)	*97*		*41 - 120*	*03/11/19 07:19*	*03/18/19 17:59*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.6	U	4.6	1.4	mg/Kg	☼	03/11/19 14:00	03/13/19 12:25	5
Lead	**6.0**		0.92	0.26	mg/Kg	☼	03/11/19 14:00	03/12/19 17:02	1
Selenium	**3.7**	**J**	6.9	2.1	mg/Kg	☼	03/11/19 14:00	03/13/19 12:25	5
Thallium	4.6	U	4.6	1.8	mg/Kg	☼	03/11/19 14:00	03/13/19 12:25	5
Antimony	0.92	U	0.92	0.33	mg/Kg	☼	03/11/19 14:00	03/12/19 17:02	1
Barium	**280**		18	0.33	mg/Kg	☼	03/11/19 14:00	03/12/19 17:02	1
Beryllium	**6.2**		2.3	0.25	mg/Kg	☼	03/11/19 14:00	03/13/19 12:25	5
Cadmium	**0.072**	**J**	0.18	0.044	mg/Kg	☼	03/11/19 14:00	03/12/19 17:02	1
Chromium	**22**		0.46	0.14	mg/Kg	☼	03/11/19 14:00	03/12/19 17:02	1
Cobalt	**0.67**	**J**	0.92	0.18	mg/Kg	☼	03/11/19 14:00	03/12/19 17:02	1
Copper	**6.5**	**J**	11	1.1	mg/Kg	☼	03/11/19 14:00	03/13/19 12:25	5
Nickel	**3.6**	**J**	3.7	0.21	mg/Kg	☼	03/11/19 14:00	03/12/19 17:02	1
Silver	**0.81**	**B**	0.46	0.074	mg/Kg	☼	03/11/19 14:00	03/12/19 17:02	1
Magnesium	**37000**		460	42	mg/Kg	☼	03/11/19 14:00	03/12/19 17:02	1
Tin	9.2	U	9.2	3.3	mg/Kg	☼	03/11/19 14:00	03/12/19 17:02	1
Manganese	**3300**	**B**	6.9	1.4	mg/Kg	☼	03/11/19 14:00	03/13/19 12:25	5
Vanadium	**17**		4.6	0.75	mg/Kg	☼	03/11/19 14:00	03/12/19 17:02	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB02-0-2

Date Collected: 03/05/19 09:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-3

Matrix: Solid
Percent Solids: 93.2

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	23		4.6	1.3	mg/Kg	☼	03/11/19 14:00	03/12/19 17:02	1
Sodium	1300		460	58	mg/Kg	☼	03/11/19 14:00	03/12/19 17:02	1
Iron	6100		9.2	6.4	mg/Kg	☼	03/11/19 14:00	03/12/19 17:02	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.11	U	0.11	0.020	mg/Kg	☼	03/11/19 16:00	03/13/19 10:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	2.3		0.56	0.21	mg/Kg	☼	03/11/19 13:18	03/11/19 15:46	1
Sulfide	1500		33	16	mg/Kg	☼	03/11/19 09:23	03/11/19 11:35	1
Percent Solids	93.2		0.1	0.1	%			03/11/19 17:03	1
Percent Moisture	6.8		0.1	0.1	%			03/11/19 17:03	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB02-6-8

Date Collected: 03/05/19 10:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-4

Matrix: Solid
Percent Solids: 86.0

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	300	U	300	17	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
1,1,2,2-Tetrachloroethane	300	U	300	17	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	300	U	300	80	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
1,1,2-Trichloroethane	300	U	300	16	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
1,1-Dichloroethane	300	U	300	11	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
1,1-Dichloroethene	300	U	300	18	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
1,2,4-Trichlorobenzene	300	U	300	160	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
1,2-Dibromo-3-Chloropropane	600	U *	600	100	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Ethylene Dibromide	300	U *	300	94	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
1,2-Dichlorobenzene	300	U	300	25	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
1,2-Dichloroethane	300	U	300	14	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
1,2-Dichloropropane	300	U	300	9.5	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
1,3-Dichlorobenzene	300	U	300	25	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
1,4-Dichlorobenzene	300	U	300	20	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
2-Butanone (MEK)	1200	U	1200	190	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
2-Hexanone	1200	U	1200	310	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
4-Methyl-2-pentanone (MIBK)	1200	U	1200	280	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Acetone	1200	U	1200	290	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Benzene	300	U	300	9.5	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Dichlorobromomethane	300	U	300	33	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Bromoform	300	U	300	130	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Bromomethane	300	U	300	200	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Carbon disulfide	300	U	300	130	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Carbon tetrachloride	300	U	300	21	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Chlorobenzene	300	U	300	42	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Chloroethane	300	U	300	180	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Chloroform	300	U	300	11	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Chloromethane	300	U	300	79	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
cis-1,2-Dichloroethene	300	U	300	11	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
cis-1,3-Dichloropropene	300	U *	300	44	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Cyclohexane	600	U	600	190	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Chlorodibromomethane	300	U *	300	140	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Dichlorodifluoromethane	300	U	300	63	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Ethylbenzene	300	U	300	14	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Isopropylbenzene	300	U	300	45	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Methyl acetate	1500	U	1500	630	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Methyl tert-butyl ether	300	U	300	44	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Methylcyclohexane	600	U	600	79	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Methylene Chloride	600	U	600	460	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Styrene	300	U	300	14	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Tetrachloroethene	300	U	300	18	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Toluene	300	U	300	54	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
trans-1,2-Dichloroethene	300	U	300	18	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
trans-1,3-Dichloropropene	300	U *	300	130	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Trichloroethene	300	U	300	16	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Trichlorofluoromethane	300	U	300	55	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Vinyl chloride	300	U	300	12	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Xylenes, Total	600	U	600	27	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1
Naphthalene	300	U	300	140	ug/Kg	☼	03/13/19 11:20	03/14/19 13:14	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB02-6-8

Date Collected: 03/05/19 10:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-4

Matrix: Solid
Percent Solids: 86.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*90*		*49 - 147*	*03/13/19 11:20*	*03/14/19 13:14*	*1*
Dibromofluoromethane (Surr)	*87*		*49 - 138*	*03/13/19 11:20*	*03/14/19 13:14*	*1*
4-Bromofluorobenzene (Surr)	*95*		*48 - 151*	*03/13/19 11:20*	*03/14/19 13:14*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*53 - 155*	*03/13/19 11:20*	*03/14/19 13:14*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	57	U	57	20	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
bis (2-chloroisopropyl) ether	110	U	110	11	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
2,4,5-Trichlorophenol	170	U	170	79	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
2,4,6-Trichlorophenol	170	U	170	74	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
2,4-Dichlorophenol	170	U	170	51	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
2,4-Dimethylphenol	170	U	170	46	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
2,4-Dinitrophenol	380	U	380	160	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
2,4-Dinitrotoluene	230	U	230	71	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
2,6-Dinitrotoluene	230	U	230	64	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
2-Chloronaphthalene	57	U	57	16	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
2-Chlorophenol	57	U	57	11	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
2-Methylnaphthalene	17	U	17	2.3	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
2-Methylphenol	230	U	230	36	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
2-Nitroaniline	230	U	230	46	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
2-Nitrophenol	57	U	57	15	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
3,3'-Dichlorobenzidine	110	U	110	49	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
3-Nitroaniline	230	U	230	56	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
4,6-Dinitro-2-methylphenol	380	U	380	92	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
4-Bromophenyl phenyl ether	57	U	57	16	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
4-Chloro-3-methylphenol	170	U	170	52	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
4-Chloroaniline	170	U	170	34	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
4-Chlorophenyl phenyl ether	57	U	57	16	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
4-Nitroaniline	230	U	230	69	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
4-Nitrophenol	380	U	380	110	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Acenaphthene	17	U	17	3.3	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Acenaphthylene	17	U	17	4.6	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Acetophenone	110	U	110	13	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Anthracene	17	U	17	2.8	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Atrazine	230	U	230	41	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Benzaldehyde	110	U	110	26	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Benzo[a]anthracene	**14**	**J**	17	3.9	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Benzo[a]pyrene	**20**		17	11	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Benzo[b]fluoranthene	**22**		17	7.5	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Benzo[g,h,i]perylene	**14**	**J**	17	8.2	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Benzo[k]fluoranthene	17	U	17	8.0	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Bis(2-chloroethoxy)methane	110	U	110	14	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Bis(2-chloroethyl)ether	110	U	110	14	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Bis(2-ethylhexyl) phthalate	80	U	80	59	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Butyl benzyl phthalate	80	U	80	25	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Caprolactam	380	U	380	86	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Carbazole	57	U	57	22	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Chrysene	**17**		17	1.7	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Dibenz(a,h)anthracene	17	U	17	8.0	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1

Client Sample ID: SB02-6-8

Date Collected: 03/05/19 10:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-4

Matrix: Solid
Percent Solids: 86.0

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	57	U	57	15	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Diethyl phthalate	80	U	80	36	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Dimethyl phthalate	80	U	80	16	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Di-n-butyl phthalate	80	U	80	25	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Di-n-octyl phthalate	80	U	80	32	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Fluoranthene	**37**		17	5.1	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Fluorene	17	U	17	3.2	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Hexachlorobenzene	17	U	17	3.3	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Hexachlorobutadiene	57	U	57	14	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Hexachlorocyclopentadiene	380	U	380	71	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Hexachloroethane	57	U	57	10	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Indeno[1,2,3-cd]pyrene	17	U	17	8.5	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Isophorone	57	U	57	14	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Naphthalene	17	U	17	2.8	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Nitrobenzene	110	U	110	15	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
N-Nitrosodi-n-propylamine	57	U	57	13	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
N-Nitrosodiphenylamine	57	U	57	14	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Pentachlorophenol	170	U	170	67	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Phenol	57	U	57	9.2	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Phenanthrene	17	U	17	2.6	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
Pyrene	**28**		17	2.5	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1
3 & 4 Methylphenol	460	U	460	33	ug/Kg	☼	03/11/19 07:19	03/18/19 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*81*		*32 - 120*	*03/11/19 07:19*	*03/18/19 17:35*	*1*
2-Fluorophenol (Surr)	*89*		*29 - 120*	*03/11/19 07:19*	*03/18/19 17:35*	*1*
2,4,6-Tribromophenol (Surr)	*63*		*10 - 120*	*03/11/19 07:19*	*03/18/19 17:35*	*1*
Nitrobenzene-d5 (Surr)	*83*		*30 - 120*	*03/11/19 07:19*	*03/18/19 17:35*	*1*
Phenol-d5 (Surr)	*85*		*29 - 120*	*03/11/19 07:19*	*03/18/19 17:35*	*1*
Terphenyl-d14 (Surr)	*96*		*41 - 120*	*03/11/19 07:19*	*03/18/19 17:35*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.1**		1.1	0.35	mg/Kg	☼	03/11/19 14:00	03/12/19 17:07	1
Lead	**2.1**		1.1	0.31	mg/Kg	☼	03/11/19 14:00	03/12/19 17:07	1
Selenium	1.6	U	1.6	0.51	mg/Kg	☼	03/11/19 14:00	03/12/19 17:07	1
Thallium	1.1	U	1.1	0.44	mg/Kg	☼	03/11/19 14:00	03/12/19 17:07	1
Antimony	1.1	U	1.1	0.39	mg/Kg	☼	03/11/19 14:00	03/12/19 17:07	1
Barium	**3.3**	**J**	22	0.40	mg/Kg	☼	03/11/19 14:00	03/12/19 17:07	1
Beryllium	0.55	U ^	0.55	0.059	mg/Kg	☼	03/11/19 14:00	03/12/19 17:07	1
Cadmium	0.22	U	0.22	0.053	mg/Kg	☼	03/11/19 14:00	03/12/19 17:07	1
Chromium	**6.0**		0.55	0.17	mg/Kg	☼	03/11/19 14:00	03/12/19 17:07	1
Cobalt	**1.4**		1.1	0.22	mg/Kg	☼	03/11/19 14:00	03/12/19 17:07	1
Copper	**1.8**	**J**	2.7	0.26	mg/Kg	☼	03/11/19 14:00	03/12/19 17:07	1
Nickel	**2.6**	**J**	4.4	0.26	mg/Kg	☼	03/11/19 14:00	03/12/19 17:07	1
Silver	**0.13**	**J B**	0.55	0.089	mg/Kg	☼	03/11/19 14:00	03/12/19 17:07	1
Magnesium	**12000**		550	51	mg/Kg	☼	03/11/19 14:00	03/12/19 17:07	1
Tin	11	U	11	4.0	mg/Kg	☼	03/11/19 14:00	03/12/19 17:07	1
Manganese	**160**	**B**	1.6	0.34	mg/Kg	☼	03/11/19 14:00	03/12/19 17:07	1
Vanadium	**11**		5.5	0.90	mg/Kg	☼	03/11/19 14:00	03/12/19 17:07	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB02-6-8

Date Collected: 03/05/19 10:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-4

Matrix: Solid
Percent Solids: 86.0

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	12		5.5	1.5	mg/Kg	☼	03/11/19 14:00	03/12/19 17:07	1
Sodium	100	J	550	69	mg/Kg	☼	03/11/19 14:00	03/12/19 17:07	1
Iron	4100		11	7.6	mg/Kg	☼	03/11/19 14:00	03/12/19 17:07	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13	U	0.13	0.023	mg/Kg	☼	03/11/19 16:00	03/13/19 10:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.58	U	0.58	0.22	mg/Kg	☼	03/11/19 13:18	03/11/19 15:48	1
Sulfide	34	J	35	17	mg/Kg	☼	03/11/19 09:23	03/11/19 11:35	1
Percent Solids	86.0		0.1	0.1	%			03/11/19 17:03	1
Percent Moisture	14.0		0.1	0.1	%			03/11/19 17:03	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB03-0-2

Date Collected: 03/05/19 10:45
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-5

Matrix: Solid
Percent Solids: 90.8

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	290	U	290	16	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
1,1,2,2-Tetrachloroethane	290	U	290	16	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	290	U	290	77	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
1,1,2-Trichloroethane	290	U	290	15	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
1,1-Dichloroethane	290	U	290	10	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
1,1-Dichloroethene	290	U	290	17	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
1,2,4-Trichlorobenzene	290	U	290	150	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
1,2-Dibromo-3-Chloropropane	570	U *	570	100	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Ethylene Dibromide	290	U *	290	91	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
1,2-Dichlorobenzene	290	U	290	24	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
1,2-Dichloroethane	290	U	290	14	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
1,2-Dichloropropane	290	U	290	9.2	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
1,3-Dichlorobenzene	290	U	290	24	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
1,4-Dichlorobenzene	290	U	290	20	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
2-Butanone (MEK)	1100	U	1100	180	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
2-Hexanone	1100	U	1100	300	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
4-Methyl-2-pentanone (MIBK)	1100	U	1100	270	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Acetone	1100	U	1100	280	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Benzene	290	U	290	9.2	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Dichlorobromomethane	290	U	290	32	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Bromoform	290	U	290	120	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Bromomethane	290	U	290	190	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Carbon disulfide	290	U	290	120	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Carbon tetrachloride	290	U	290	21	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Chlorobenzene	290	U	290	40	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Chloroethane	290	U	290	170	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Chloroform	290	U	290	10	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Chloromethane	290	U	290	76	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
cis-1,2-Dichloroethene	290	U	290	10	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
cis-1,3-Dichloropropene	290	U *	290	43	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Cyclohexane	570	U	570	190	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Chlorodibromomethane	290	U *	290	130	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Dichlorodifluoromethane	290	U	290	61	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Ethylbenzene	290	U	290	14	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Isopropylbenzene	290	U	290	44	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Methyl acetate	1400	U	1400	600	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Methyl tert-butyl ether	290	U	290	43	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Methylcyclohexane	570	U	570	76	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Methylene Chloride	570	U	570	440	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Styrene	290	U	290	14	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Tetrachloroethene	290	U	290	17	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Toluene	290	U	290	52	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
trans-1,2-Dichloroethene	290	U	290	17	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
trans-1,3-Dichloropropene	290	U *	290	120	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Trichloroethene	290	U	290	15	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Trichlorofluoromethane	290	U	290	53	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Vinyl chloride	290	U	290	11	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Xylenes, Total	570	U	570	26	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1
Naphthalene	290	U	290	140	ug/Kg	☼	03/13/19 11:20	03/14/19 13:35	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB03-0-2

Date Collected: 03/05/19 10:45
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-5

Matrix: Solid
Percent Solids: 90.8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*89*		*49 - 147*	*03/13/19 11:20*	*03/14/19 13:35*	*1*
Dibromofluoromethane (Surr)	*86*		*49 - 138*	*03/13/19 11:20*	*03/14/19 13:35*	*1*
4-Bromofluorobenzene (Surr)	*96*		*48 - 151*	*03/13/19 11:20*	*03/14/19 13:35*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*53 - 155*	*03/13/19 11:20*	*03/14/19 13:35*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	56	U	56	19	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
bis (2-chloroisopropyl) ether	110	U	110	11	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
2,4,5-Trichlorophenol	170	U	170	77	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
2,4,6-Trichlorophenol	170	U	170	71	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
2,4-Dichlorophenol	170	U	170	49	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
2,4-Dimethylphenol	170	U	170	44	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
2,4-Dinitrophenol	370	U	370	160	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
2,4-Dinitrotoluene	220	U	220	69	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
2,6-Dinitrotoluene	220	U	220	62	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
2-Chloronaphthalene	56	U	56	16	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
2-Chlorophenol	56	U	56	11	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
2-Methylnaphthalene	**8.5**	**J**	17	2.2	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
2-Methylphenol	220	U	220	34	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
2-Nitroaniline	220	U	220	44	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
2-Nitrophenol	56	U	56	14	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
3,3'-Dichlorobenzidine	110	U	110	48	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
3-Nitroaniline	220	U	220	54	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
4,6-Dinitro-2-methylphenol	370	U	370	89	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
4-Bromophenyl phenyl ether	56	U	56	16	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
4-Chloro-3-methylphenol	170	U	170	50	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
4-Chloroaniline	170	U	170	33	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
4-Chlorophenyl phenyl ether	56	U	56	16	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
4-Nitroaniline	220	U	220	67	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
4-Nitrophenol	370	U	370	100	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Acenaphthene	**28**		17	3.2	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Acenaphthylene	**8.7**	**J**	17	4.5	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Acetophenone	110	U	110	12	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Anthracene	**180**		17	2.7	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Atrazine	220	U	220	40	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Benzaldehyde	110	U	110	26	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Benzo[a]anthracene	**280**		17	3.8	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Benzo[a]pyrene	**190**		17	10	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Benzo[b]fluoranthene	**380**		17	7.2	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Benzo[g,h,i]perylene	**97**		17	7.9	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Benzo[k]fluoranthene	**150**		17	7.7	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Bis(2-chloroethoxy)methane	110	U	110	13	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Bis(2-chloroethyl)ether	110	U	110	13	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Bis(2-ethylhexyl) phthalate	**140**		78	57	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Butyl benzyl phthalate	78	U	78	24	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Caprolactam	370	U	370	83	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Carbazole	**92**		56	21	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Chrysene	**330**		17	1.7	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Dibenz(a,h)anthracene	**33**		17	7.7	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB03-0-2

Date Collected: 03/05/19 10:45
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-5

Matrix: Solid
Percent Solids: 90.8

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	**36**	**J**	56	14	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Diethyl phthalate	78	U	78	34	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Dimethyl phthalate	78	U	78	16	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Di-n-butyl phthalate	78	U	78	24	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Di-n-octyl phthalate	78	U	78	31	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Fluoranthene	**850**		17	4.9	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Fluorene	**16**	**J**	17	3.0	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Hexachlorobenzene	17	U	17	3.2	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Hexachlorobutadiene	56	U	56	13	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Hexachlorocyclopentadiene	370	U	370	69	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Hexachloroethane	56	U	56	10	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Indeno[1,2,3-cd]pyrene	**93**		17	8.2	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Isophorone	56	U	56	13	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Naphthalene	**13**	**J**	17	2.7	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Nitrobenzene	110	U	110	14	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
N-Nitrosodi-n-propylamine	56	U	56	12	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
N-Nitrosodiphenylamine	56	U	56	13	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Pentachlorophenol	170	U	170	64	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Phenol	56	U	56	8.9	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Phenanthrene	**670**		17	2.5	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
Pyrene	**620**		17	2.4	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1
3 & 4 Methylphenol	440	U	440	32	ug/Kg	☼	03/11/19 07:19	03/18/19 21:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*59*		*32 - 120*	*03/11/19 07:19*	*03/18/19 21:11*	*1*
2-Fluorophenol (Surr)	*58*		*29 - 120*	*03/11/19 07:19*	*03/18/19 21:11*	*1*
2,4,6-Tribromophenol (Surr)	*54*		*10 - 120*	*03/11/19 07:19*	*03/18/19 21:11*	*1*
Nitrobenzene-d5 (Surr)	*52*		*30 - 120*	*03/11/19 07:19*	*03/18/19 21:11*	*1*
Phenol-d5 (Surr)	*62*		*29 - 120*	*03/11/19 07:19*	*03/18/19 21:11*	*1*
Terphenyl-d14 (Surr)	*69*		*41 - 120*	*03/11/19 07:19*	*03/18/19 21:11*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.5	U	4.5	1.4	mg/Kg	☼	03/11/19 14:00	03/13/19 12:30	5
Lead	**9.8**		0.90	0.25	mg/Kg	☼	03/11/19 14:00	03/12/19 17:11	1
Selenium	6.7	U	6.7	2.1	mg/Kg	☼	03/11/19 14:00	03/13/19 12:30	5
Thallium	4.5	U	4.5	1.8	mg/Kg	☼	03/11/19 14:00	03/13/19 12:30	5
Antimony	0.90	U	0.90	0.32	mg/Kg	☼	03/11/19 14:00	03/12/19 17:11	1
Barium	**300**		18	0.32	mg/Kg	☼	03/11/19 14:00	03/12/19 17:11	1
Beryllium	**6.6**		2.2	0.24	mg/Kg	☼	03/11/19 14:00	03/13/19 12:30	5
Cadmium	**0.11**	**J**	0.18	0.043	mg/Kg	☼	03/11/19 14:00	03/12/19 17:11	1
Chromium	**100**		0.45	0.14	mg/Kg	☼	03/11/19 14:00	03/12/19 17:11	1
Cobalt	**0.88**	**J**	0.90	0.18	mg/Kg	☼	03/11/19 14:00	03/12/19 17:11	1
Copper	**24**		11	1.1	mg/Kg	☼	03/11/19 14:00	03/13/19 12:30	5
Nickel	**10**		3.6	0.21	mg/Kg	☼	03/11/19 14:00	03/12/19 17:11	1
Silver	**0.76**	**B**	0.45	0.073	mg/Kg	☼	03/11/19 14:00	03/12/19 17:11	1
Magnesium	**36000**		450	41	mg/Kg	☼	03/11/19 14:00	03/12/19 17:11	1
Tin	**4.4**	**J**	9.0	3.3	mg/Kg	☼	03/11/19 14:00	03/12/19 17:11	1
Manganese	**3700**	**B**	6.7	1.4	mg/Kg	☼	03/11/19 14:00	03/13/19 12:30	5
Vanadium	**25**		4.5	0.74	mg/Kg	☼	03/11/19 14:00	03/12/19 17:11	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB03-0-2

Date Collected: 03/05/19 10:45
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-5

Matrix: Solid
Percent Solids: 90.8

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	140		4.5	1.2	mg/Kg	☼	03/11/19 14:00	03/12/19 17:11	1
Sodium	1300		450	56	mg/Kg	☼	03/11/19 14:00	03/12/19 17:11	1
Iron	11000		9.0	6.2	mg/Kg	☼	03/11/19 14:00	03/12/19 17:11	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.11	U	0.11	0.020	mg/Kg	☼	03/11/19 16:00	03/13/19 10:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	1.9		0.51	0.19	mg/Kg	☼	03/11/19 13:18	03/11/19 15:50	1
Sulfide	1500		33	16	mg/Kg	☼	03/11/19 09:23	03/11/19 11:35	1
Percent Solids	90.8		0.1	0.1	%			03/11/19 16:58	1
Percent Moisture	9.2		0.1	0.1	%			03/11/19 16:58	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB03-6-8

Date Collected: 03/05/19 11:10
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-6

Matrix: Solid
Percent Solids: 86.6

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	290	U	290	16	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
1,1,2,2-Tetrachloroethane	290	U	290	16	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	290	U	290	79	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
1,1,2-Trichloroethane	290	U	290	15	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
1,1-Dichloroethane	290	U	290	11	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
1,1-Dichloroethene	290	U	290	18	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
1,2,4-Trichlorobenzene	290	U	290	160	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
1,2-Dibromo-3-Chloropropane	590	U *	590	100	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Ethylene Dibromide	290	U *	290	93	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
1,2-Dichlorobenzene	290	U	290	25	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
1,2-Dichloroethane	290	U	290	14	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
1,2-Dichloropropane	290	U	290	9.4	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
1,3-Dichlorobenzene	290	U	290	25	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
1,4-Dichlorobenzene	290	U	290	20	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
2-Butanone (MEK)	1200	U	1200	180	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
2-Hexanone	1200	U	1200	310	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
4-Methyl-2-pentanone (MIBK)	1200	U	1200	280	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Acetone	1200	U	1200	290	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Benzene	290	U	290	9.4	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Dichlorobromomethane	290	U	290	33	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Bromoform	290	U	290	120	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Bromomethane	290	U	290	190	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Carbon disulfide	290	U	290	130	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Carbon tetrachloride	290	U	290	21	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Chlorobenzene	290	U	290	41	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Chloroethane	290	U	290	180	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Chloroform	290	U	290	11	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Chloromethane	290	U	290	77	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
cis-1,2-Dichloroethene	290	U	290	11	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
cis-1,3-Dichloropropene	290	U *	290	43	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Cyclohexane	590	U	590	190	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Chlorodibromomethane	290	U *	290	140	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Dichlorodifluoromethane	290	U	290	62	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Ethylbenzene	290	U	290	14	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Isopropylbenzene	290	U	290	45	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Methyl acetate	1500	U	1500	620	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Methyl tert-butyl ether	290	U	290	43	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Methylcyclohexane	590	U	590	77	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Methylene Chloride	590	U	590	450	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Styrene	290	U	290	14	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Tetrachloroethene	290	U	290	18	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Toluene	290	U	290	53	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
trans-1,2-Dichloroethene	290	U	290	18	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
trans-1,3-Dichloropropene	290	U *	290	120	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Trichloroethene	290	U	290	15	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Trichlorofluoromethane	290	U	290	54	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Vinyl chloride	290	U	290	12	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Xylenes, Total	590	U	590	27	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1
Naphthalene	290	U	290	140	ug/Kg	☼	03/13/19 11:20	03/14/19 13:57	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB03-6-8

Date Collected: 03/05/19 11:10
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-6

Matrix: Solid
Percent Solids: 86.6

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*87*		*49 - 147*	*03/13/19 11:20*	*03/14/19 13:57*	*1*
Dibromofluoromethane (Surr)	*83*		*49 - 138*	*03/13/19 11:20*	*03/14/19 13:57*	*1*
4-Bromofluorobenzene (Surr)	*90*		*48 - 151*	*03/13/19 11:20*	*03/14/19 13:57*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*53 - 155*	*03/13/19 11:20*	*03/14/19 13:57*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	58	U	58	20	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
bis (2-chloroisopropyl) ether	120	U	120	12	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
2,4,5-Trichlorophenol	170	U	170	79	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
2,4,6-Trichlorophenol	170	U	170	74	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
2,4-Dichlorophenol	170	U	170	51	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
2,4-Dimethylphenol	170	U	170	46	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
2,4-Dinitrophenol	380	U	380	160	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
2,4-Dinitrotoluene	230	U	230	71	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
2,6-Dinitrotoluene	230	U	230	65	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
2-Chloronaphthalene	58	U	58	16	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
2-Chlorophenol	58	U	58	12	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
2-Methylnaphthalene	17	U	17	2.3	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
2-Methylphenol	230	U	230	36	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
2-Nitroaniline	230	U	230	46	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
2-Nitrophenol	58	U	58	15	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
3,3'-Dichlorobenzidine	120	U	120	50	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
3-Nitroaniline	230	U	230	56	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
4,6-Dinitro-2-methylphenol	380	U	380	92	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
4-Bromophenyl phenyl ether	58	U	58	16	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
4-Chloro-3-methylphenol	170	U	170	52	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
4-Chloroaniline	170	U	170	35	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
4-Chlorophenyl phenyl ether	58	U	58	16	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
4-Nitroaniline	230	U	230	69	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
4-Nitrophenol	380	U	380	110	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Acenaphthene	17	U	17	3.3	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Acenaphthylene	17	U	17	4.6	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Acetophenone	120	U	120	13	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Anthracene	17	U	17	2.8	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Atrazine	230	U	230	41	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Benzaldehyde	120	U	120	26	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Benzo[a]anthracene	17	U	17	3.9	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Benzo[a]pyrene	17	U	17	11	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Benzo[b]fluoranthene	17	U	17	7.5	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Benzo[g,h,i]perylene	17	U	17	8.2	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Benzo[k]fluoranthene	17	U	17	8.0	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Bis(2-chloroethoxy)methane	120	U	120	14	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Bis(2-chloroethyl)ether	120	U	120	14	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Bis(2-ethylhexyl) phthalate	81	U	81	59	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Butyl benzyl phthalate	81	U	81	25	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Caprolactam	380	U	380	86	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Carbazole	58	U	58	22	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Chrysene	17	U	17	1.7	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Dibenz(a,h)anthracene	17	U	17	8.0	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB03-6-8

Date Collected: 03/05/19 11:10
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-6

Matrix: Solid
Percent Solids: 86.6

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	58	U	58	15	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Diethyl phthalate	81	U	81	36	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Dimethyl phthalate	81	U	81	16	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Di-n-butyl phthalate	81	U	81	25	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Di-n-octyl phthalate	81	U	81	32	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Fluoranthene	**6.9**	**J**	17	5.1	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Fluorene	17	U	17	3.2	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Hexachlorobenzene	17	U	17	3.3	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Hexachlorobutadiene	58	U	58	14	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Hexachlorocyclopentadiene	380	U	380	71	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Hexachloroethane	58	U	58	10	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Indeno[1,2,3-cd]pyrene	17	U	17	8.5	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Isophorone	58	U	58	14	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Naphthalene	17	U	17	2.8	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Nitrobenzene	120	U	120	15	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
N-Nitrosodi-n-propylamine	58	U	58	13	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
N-Nitrosodiphenylamine	58	U	58	14	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Pentachlorophenol	170	U	170	67	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Phenol	58	U	58	9.2	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Phenanthrene	17	U	17	2.6	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
Pyrene	**7.1**	**J**	17	2.5	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1
3 & 4 Methylphenol	460	U	460	33	ug/Kg	☼	03/11/19 07:19	03/18/19 15:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*84*		*32 - 120*	*03/11/19 07:19*	*03/18/19 15:12*	*1*
2-Fluorophenol (Surr)	*90*		*29 - 120*	*03/11/19 07:19*	*03/18/19 15:12*	*1*
2,4,6-Tribromophenol (Surr)	*59*		*10 - 120*	*03/11/19 07:19*	*03/18/19 15:12*	*1*
Nitrobenzene-d5 (Surr)	*84*		*30 - 120*	*03/11/19 07:19*	*03/18/19 15:12*	*1*
Phenol-d5 (Surr)	*88*		*29 - 120*	*03/11/19 07:19*	*03/18/19 15:12*	*1*
Terphenyl-d14 (Surr)	*97*		*41 - 120*	*03/11/19 07:19*	*03/18/19 15:12*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.2**		1.1	0.34	mg/Kg	☼	03/11/19 14:00	03/12/19 17:15	1
Lead	**4.0**		1.1	0.31	mg/Kg	☼	03/11/19 14:00	03/12/19 17:15	1
Selenium	1.6	U	1.6	0.51	mg/Kg	☼	03/11/19 14:00	03/12/19 17:15	1
Thallium	1.1	U	1.1	0.43	mg/Kg	☼	03/11/19 14:00	03/12/19 17:15	1
Antimony	1.1	U	1.1	0.39	mg/Kg	☼	03/11/19 14:00	03/12/19 17:15	1
Barium	**5.2**	**J**	22	0.39	mg/Kg	☼	03/11/19 14:00	03/12/19 17:15	1
Beryllium	0.54	U ^	0.54	0.059	mg/Kg	☼	03/11/19 14:00	03/12/19 17:15	1
Cadmium	**0.11**	**J**	0.22	0.052	mg/Kg	☼	03/11/19 14:00	03/12/19 17:15	1
Chromium	**4.7**		0.54	0.16	mg/Kg	☼	03/11/19 14:00	03/12/19 17:15	1
Cobalt	**1.9**		1.1	0.22	mg/Kg	☼	03/11/19 14:00	03/12/19 17:15	1
Copper	**3.7**		2.7	0.26	mg/Kg	☼	03/11/19 14:00	03/12/19 17:15	1
Nickel	**3.7**	**J**	4.4	0.25	mg/Kg	☼	03/11/19 14:00	03/12/19 17:15	1
Silver	**0.21**	**J B**	0.54	0.088	mg/Kg	☼	03/11/19 14:00	03/12/19 17:15	1
Magnesium	**19000**		540	50	mg/Kg	☼	03/11/19 14:00	03/12/19 17:15	1
Tin	11	U	11	4.0	mg/Kg	☼	03/11/19 14:00	03/12/19 17:15	1
Manganese	**180**	**B**	1.6	0.34	mg/Kg	☼	03/11/19 14:00	03/12/19 17:15	1
Vanadium	**8.7**		5.4	0.90	mg/Kg	☼	03/11/19 14:00	03/12/19 17:15	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB03-6-8

Date Collected: 03/05/19 11:10
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-6

Matrix: Solid
Percent Solids: 86.6

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	19		5.4	1.5	mg/Kg	☼	03/11/19 14:00	03/12/19 17:15	1
Sodium	100	J	540	68	mg/Kg	☼	03/11/19 14:00	03/12/19 17:15	1
Iron	4600		11	7.6	mg/Kg	☼	03/11/19 14:00	03/12/19 17:15	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.12	U	0.12	0.022	mg/Kg	☼	03/11/19 16:00	03/13/19 11:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.53	U	0.53	0.20	mg/Kg	☼	03/11/19 13:18	03/11/19 15:52	1
Sulfide	35	U	35	17	mg/Kg	☼	03/11/19 09:23	03/11/19 11:35	1
Percent Solids	86.6		0.1	0.1	%			03/11/19 16:58	1
Percent Moisture	13.4		0.1	0.1	%			03/11/19 16:58	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: 9584-030519-0001

Date Collected: 03/05/19 00:01
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-7

Matrix: Solid
Percent Solids: 93.5

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	260	U	260	14	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
1,1,2,2-Tetrachloroethane	260	U	260	14	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	260	U	260	69	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
1,1,2-Trichloroethane	260	U	260	13	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
1,1-Dichloroethane	260	U	260	9.2	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
1,1-Dichloroethene	260	U	260	15	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
1,2,4-Trichlorobenzene	260	U	260	140	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
1,2-Dibromo-3-Chloropropane	510	U *	510	90	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Ethylene Dibromide	260	U *	260	81	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
1,2-Dichlorobenzene	260	U	260	22	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
1,2-Dichloroethane	260	U	260	12	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
1,2-Dichloropropane	260	U	260	8.2	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
1,3-Dichlorobenzene	260	U	260	22	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
1,4-Dichlorobenzene	260	U	260	17	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
2-Butanone (MEK)	1000	U	1000	160	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
2-Hexanone	1000	U	1000	270	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
4-Methyl-2-pentanone (MIBK)	1000	U	1000	240	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Acetone	1000	U	1000	250	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Benzene	260	U	260	8.2	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Dichlorobromomethane	260	U	260	29	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Bromoform	260	U	260	110	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Bromomethane	260	U	260	170	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Carbon disulfide	260	U	260	110	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Carbon tetrachloride	260	U	260	18	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Chlorobenzene	260	U	260	36	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Chloroethane	260	U	260	150	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Chloroform	260	U	260	9.2	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Chloromethane	260	U	260	68	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
cis-1,2-Dichloroethene	260	U	260	9.2	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
cis-1,3-Dichloropropene	260	U *	260	38	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Cyclohexane	510	U	510	170	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Chlorodibromomethane	260	U *	260	120	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Dichlorodifluoromethane	260	U	260	54	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Ethylbenzene	260	U	260	12	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Isopropylbenzene	260	U	260	39	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Methyl acetate	1300	U	1300	540	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Methyl tert-butyl ether	260	U	260	38	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Methylcyclohexane	510	U	510	68	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Methylene Chloride	510	U	510	390	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Styrene	260	U	260	12	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Tetrachloroethene	**29**	**J**	260	15	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Toluene	260	U	260	46	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
trans-1,2-Dichloroethene	260	U	260	15	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
trans-1,3-Dichloropropene	260	U *	260	110	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Trichloroethene	260	U	260	13	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Trichlorofluoromethane	260	U	260	47	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Vinyl chloride	260	U	260	10	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Xylenes, Total	510	U	510	24	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1
Naphthalene	260	U	260	120	ug/Kg	☼	03/13/19 11:20	03/14/19 14:18	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: 9584-030519-0001

Date Collected: 03/05/19 00:01
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-7

Matrix: Solid
Percent Solids: 93.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*81*		*49 - 147*	*03/13/19 11:20*	*03/14/19 14:18*	*1*
Dibromofluoromethane (Surr)	*59*		*49 - 138*	*03/13/19 11:20*	*03/14/19 14:18*	*1*
4-Bromofluorobenzene (Surr)	*85*		*48 - 151*	*03/13/19 11:20*	*03/14/19 14:18*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*53 - 155*	*03/13/19 11:20*	*03/14/19 14:18*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	270	U	270	90	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
bis (2-chloroisopropyl) ether	530	U	530	53	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
2,4,5-Trichlorophenol	800	U F1	800	370	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
2,4,6-Trichlorophenol	800	U F1	800	340	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
2,4-Dichlorophenol	800	U	800	230	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
2,4-Dimethylphenol	800	U	800	210	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
2,4-Dinitrophenol	1800	U F1	1800	750	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
2,4-Dinitrotoluene	1100	U	1100	330	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
2,6-Dinitrotoluene	1100	U	1100	300	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
2-Chloronaphthalene	270	U	270	74	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
2-Chlorophenol	270	U	270	53	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
2-Methylnaphthalene	**110**		80	10	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
2-Methylphenol	1100	U	1100	160	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
2-Nitroaniline	1100	U	1100	210	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
2-Nitrophenol	270	U	270	69	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
3,3'-Dichlorobenzidine	530	U	530	230	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
3-Nitroaniline	1100	U	1100	260	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
4,6-Dinitro-2-methylphenol	1800	U	1800	420	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
4-Bromophenyl phenyl ether	270	U	270	74	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
4-Chloro-3-methylphenol	800	U	800	240	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
4-Chloroaniline	800	U	800	160	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
4-Chlorophenyl phenyl ether	270	U	270	74	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
4-Nitroaniline	1100	U	1100	320	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
4-Nitrophenol	1800	U F1	1800	500	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Acenaphthene	**28**	**J**	80	15	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Acenaphthylene	80	U	80	21	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Acetophenone	530	U	530	58	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Anthracene	**86**		80	13	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Atrazine	1100	U	1100	190	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Benzaldehyde	530	U	530	120	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Benzo[a]anthracene	**280**		80	18	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Benzo[a]pyrene	**220**		80	50	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Benzo[b]fluoranthene	**430**		80	34	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Benzo[g,h,i]perylene	**240**		80	38	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Benzo[k]fluoranthene	**130**		80	37	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Bis(2-chloroethoxy)methane	530	U	530	64	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Bis(2-chloroethyl)ether	530	U	530	64	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Bis(2-ethylhexyl) phthalate	370	U F1	370	270	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Butyl benzyl phthalate	370	U	370	120	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Caprolactam	1800	U	1800	400	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Carbazole	270	U	270	100	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Chrysene	**380**		80	7.9	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Dibenz(a,h)anthracene	80	U	80	37	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: 9584-030519-0001

Date Collected: 03/05/19 00:01
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-7

Matrix: Solid
Percent Solids: 93.5

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	**82**	**J**	270	69	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Diethyl phthalate	370	U	370	160	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Dimethyl phthalate	370	U	370	74	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Di-n-butyl phthalate	370	U	370	120	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Di-n-octyl phthalate	370	U	370	150	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Fluoranthene	**730**		80	24	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Fluorene	**32**	**J**	80	15	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Hexachlorobenzene	80	U	80	15	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Hexachlorobutadiene	270	U	270	64	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Hexachlorocyclopentadiene	1800	U F1	1800	330	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Hexachloroethane	270	U	270	48	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Indeno[1,2,3-cd]pyrene	**180**		80	39	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Isophorone	270	U	270	64	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Naphthalene	**150**		80	13	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Nitrobenzene	530	U	530	69	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
N-Nitrosodi-n-propylamine	270	U	270	58	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
N-Nitrosodiphenylamine	270	U	270	64	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Pentachlorophenol	800	U F1	800	310	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Phenol	270	U	270	42	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Phenanthrene	**460**		80	12	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
Pyrene	**660**		80	11	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5
3 & 4 Methylphenol	2100	U	2100	150	ug/Kg	☼	03/11/19 07:19	03/14/19 18:48	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*82*		*32 - 120*	*03/11/19 07:19*	*03/14/19 18:48*	*5*
2-Fluorophenol (Surr)	*82*		*29 - 120*	*03/11/19 07:19*	*03/14/19 18:48*	*5*
2,4,6-Tribromophenol (Surr)	*27*		*10 - 120*	*03/11/19 07:19*	*03/14/19 18:48*	*5*
Nitrobenzene-d5 (Surr)	*69*		*30 - 120*	*03/11/19 07:19*	*03/14/19 18:48*	*5*
Phenol-d5 (Surr)	*88*		*29 - 120*	*03/11/19 07:19*	*03/14/19 18:48*	*5*
Terphenyl-d14 (Surr)	*91*		*41 - 120*	*03/11/19 07:19*	*03/14/19 18:48*	*5*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	17	U	17	5.3	mg/Kg	☼	03/11/19 14:00	03/13/19 12:39	20
Lead	**33**		17	4.7	mg/Kg	☼	03/11/19 14:00	03/13/19 12:39	20
Selenium	25	U	25	7.8	mg/Kg	☼	03/11/19 14:00	03/13/19 12:39	20
Thallium	17	U	17	6.7	mg/Kg	☼	03/11/19 14:00	03/13/19 12:39	20
Antimony	17	U	17	6.0	mg/Kg	☼	03/11/19 14:00	03/13/19 12:39	20
Barium	**180**		17	0.30	mg/Kg	☼	03/11/19 14:00	03/12/19 17:20	1
Beryllium	**0.40**	**J ^**	0.42	0.045	mg/Kg	☼	03/11/19 14:00	03/12/19 17:20	1
Cadmium	3.3	U	3.3	0.80	mg/Kg	☼	03/11/19 14:00	03/13/19 12:39	20
Chromium	**1100**		0.42	0.13	mg/Kg	☼	03/11/19 14:00	03/12/19 17:20	1
Cobalt	**1.9**		0.84	0.17	mg/Kg	☼	03/11/19 14:00	03/12/19 17:20	1
Copper	**45**		42	3.9	mg/Kg	☼	03/11/19 14:00	03/13/19 12:39	20
Nickel	**14**	**J**	67	3.9	mg/Kg	☼	03/11/19 14:00	03/13/19 12:39	20
Silver	**2.6**	**B**	0.42	0.068	mg/Kg	☼	03/11/19 14:00	03/12/19 17:20	1
Magnesium	**26000**		420	39	mg/Kg	☼	03/11/19 14:00	03/12/19 17:20	1
Tin	**6.0**	**J**	8.4	3.0	mg/Kg	☼	03/11/19 14:00	03/12/19 17:20	1
Manganese	**16000**	**B**	25	5.2	mg/Kg	☼	03/11/19 14:00	03/13/19 12:39	20
Vanadium	**540**		84	14	mg/Kg	☼	03/11/19 14:00	03/13/19 12:39	20

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: 9584-030519-0001

Date Collected: 03/05/19 00:01
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-7

Matrix: Solid
Percent Solids: 93.5

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	90		4.2	1.1	mg/Kg	☼	03/11/19 14:00	03/12/19 17:20	1
Sodium	190	J	420	52	mg/Kg	☼	03/11/19 14:00	03/12/19 17:20	1
Iron	210000		170	120	mg/Kg	☼	03/11/19 14:00	03/13/19 12:39	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17		0.11	0.020	mg/Kg	☼	03/11/19 16:00	03/13/19 11:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	1.2		0.56	0.21	mg/Kg	☼	03/11/19 13:18	03/11/19 15:53	1
Sulfide	82		32	16	mg/Kg	☼	03/11/19 09:23	03/11/19 11:35	1
Percent Solids	93.5		0.1	0.1	%			03/11/19 16:58	1
Percent Moisture	6.5		0.1	0.1	%			03/11/19 16:58	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB04-0-2

Date Collected: 03/05/19 14:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-8

Matrix: Solid
Percent Solids: 91.5

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	260	U *	260	15	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
1,1,2,2-Tetrachloroethane	260	U	260	15	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	260	U	260	70	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
1,1,2-Trichloroethane	260	U	260	14	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
1,1-Dichloroethane	260	U	260	9.4	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
1,1-Dichloroethene	260	U	260	16	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
1,2,4-Trichlorobenzene	260	U	260	140	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
1,2-Dibromo-3-Chloropropane	520	U *	520	92	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Ethylene Dibromide	260	U *	260	83	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
1,2-Dichlorobenzene	260	U	260	22	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
1,2-Dichloroethane	260	U	260	13	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
1,2-Dichloropropane	260	U	260	8.4	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
1,3-Dichlorobenzene	260	U	260	22	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
1,4-Dichlorobenzene	260	U	260	18	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
2-Butanone (MEK)	1000	U	1000	160	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
2-Hexanone	1000	U	1000	280	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
4-Methyl-2-pentanone (MIBK)	1000	U	1000	250	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Acetone	1000	U	1000	260	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Benzene	260	U	260	8.4	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Dichlorobromomethane	260	U	260	29	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Bromoform	260	U *	260	110	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Bromomethane	260	U	260	170	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Carbon disulfide	260	U	260	110	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Carbon tetrachloride	260	U *	260	19	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Chlorobenzene	260	U	260	37	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Chloroethane	260	U	260	160	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Chloroform	260	U	260	9.4	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Chloromethane	260	U	260	69	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
cis-1,2-Dichloroethene	260	U	260	9.4	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
cis-1,3-Dichloropropene	260	U *	260	39	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Cyclohexane	520	U	520	170	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Chlorodibromomethane	260	U *	260	120	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Dichlorodifluoromethane	260	U	260	56	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Ethylbenzene	260	U	260	13	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Isopropylbenzene	260	U	260	40	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Methyl acetate	1300	U	1300	550	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Methyl tert-butyl ether	260	U	260	39	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Methylcyclohexane	520	U	520	69	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Methylene Chloride	520	U	520	400	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Styrene	260	U	260	13	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Tetrachloroethene	**33**	**J**	260	16	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Toluene	260	U	260	47	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
trans-1,2-Dichloroethene	260	U	260	16	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
trans-1,3-Dichloropropene	260	U *	260	110	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Trichloroethene	260	U	260	14	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Trichlorofluoromethane	260	U	260	48	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Vinyl chloride	260	U	260	10	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Xylenes, Total	**26**	**J**	520	24	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1
Naphthalene	**170**	**J ***	260	120	ug/Kg	☼	03/13/19 13:53	03/15/19 10:41	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB04-0-2

Date Collected: 03/05/19 14:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-8

Matrix: Solid
Percent Solids: 91.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*88*		*49 - 147*	*03/13/19 13:53*	*03/15/19 10:41*	*1*
Dibromofluoromethane (Surr)	*64*		*49 - 138*	*03/13/19 13:53*	*03/15/19 10:41*	*1*
4-Bromofluorobenzene (Surr)	*94*		*48 - 151*	*03/13/19 13:53*	*03/15/19 10:41*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*53 - 155*	*03/13/19 13:53*	*03/15/19 10:41*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	**27**	**J**	54	18	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
bis (2-chloroisopropyl) ether	110	U	110	11	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
2,4,5-Trichlorophenol	160	U	160	75	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
2,4,6-Trichlorophenol	160	U	160	69	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
2,4-Dichlorophenol	160	U	160	48	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
2,4-Dimethylphenol	160	U	160	43	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
2,4-Dinitrophenol	360	U	360	150	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
2,4-Dinitrotoluene	220	U	220	67	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
2,6-Dinitrotoluene	220	U	220	61	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
2-Chloronaphthalene	54	U	54	15	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
2-Chlorophenol	54	U	54	11	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
2-Methylnaphthalene	**100**		16	2.1	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
2-Methylphenol	220	U	220	34	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
2-Nitroaniline	220	U	220	43	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
2-Nitrophenol	54	U	54	14	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
3,3'-Dichlorobenzidine	110	U	110	47	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
3-Nitroaniline	220	U	220	53	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
4,6-Dinitro-2-methylphenol	360	U	360	87	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
4-Bromophenyl phenyl ether	54	U	54	15	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
4-Chloro-3-methylphenol	160	U	160	49	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
4-Chloroaniline	160	U	160	32	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
4-Chlorophenyl phenyl ether	54	U	54	15	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
4-Nitroaniline	220	U	220	65	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
4-Nitrophenol	360	U	360	100	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Acenaphthene	**20**		16	3.1	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Acenaphthylene	**14**	**J**	16	4.3	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Acetophenone	**22**	**J**	110	12	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Anthracene	**65**		16	2.6	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Atrazine	220	U	220	39	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Benzaldehyde	110	U	110	25	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Benzo[a]anthracene	**250**		16	3.7	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Benzo[a]pyrene	**210**		16	10	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Benzo[b]fluoranthene	**410**		16	7.0	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Benzo[g,h,i]perylene	**200**		16	7.7	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Benzo[k]fluoranthene	**130**		16	7.5	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Bis(2-chloroethoxy)methane	110	U	110	13	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Bis(2-chloroethyl)ether	110	U	110	13	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Bis(2-ethylhexyl) phthalate	**400**		76	55	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Butyl benzyl phthalate	76	U	76	24	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Caprolactam	360	U	360	81	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Carbazole	**35**	**J**	54	21	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Chrysene	**330**		16	1.6	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Dibenz(a,h)anthracene	**65**		16	7.5	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1

Client Sample ID: SB04-0-2

Date Collected: 03/05/19 14:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-8

Matrix: Solid
Percent Solids: 91.5

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	**59**		54	14	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Diethyl phthalate	76	U	76	34	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Dimethyl phthalate	76	U	76	15	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Di-n-butyl phthalate	76	U	76	24	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Di-n-octyl phthalate	76	U	76	30	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Fluoranthene	**590**		16	4.8	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Fluorene	**15**	**J**	16	3.0	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Hexachlorobenzene	16	U	16	3.1	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Hexachlorobutadiene	54	U	54	13	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Hexachlorocyclopentadiene	360	U	360	67	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Hexachloroethane	54	U	54	9.7	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Indeno[1,2,3-cd]pyrene	**150**		16	8.0	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Isophorone	54	U	54	13	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Naphthalene	**100**		16	2.6	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Nitrobenzene	110	U	110	14	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
N-Nitrosodi-n-propylamine	54	U	54	12	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
N-Nitrosodiphenylamine	54	U	54	13	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Pentachlorophenol	160	U	160	63	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Phenol	54	U	54	8.7	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Phenanthrene	**330**		16	2.4	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
Pyrene	**530**		16	2.3	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1
3 & 4 Methylphenol	430	U	430	31	ug/Kg	☼	03/12/19 07:38	03/18/19 17:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*83*		*32 - 120*	*03/12/19 07:38*	*03/18/19 17:11*	*1*
2-Fluorophenol (Surr)	*93*		*29 - 120*	*03/12/19 07:38*	*03/18/19 17:11*	*1*
2,4,6-Tribromophenol (Surr)	*43*		*10 - 120*	*03/12/19 07:38*	*03/18/19 17:11*	*1*
Nitrobenzene-d5 (Surr)	*85*		*30 - 120*	*03/12/19 07:38*	*03/18/19 17:11*	*1*
Phenol-d5 (Surr)	*91*		*29 - 120*	*03/12/19 07:38*	*03/18/19 17:11*	*1*
Terphenyl-d14 (Surr)	*96*		*41 - 120*	*03/12/19 07:38*	*03/18/19 17:11*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	15	U	15	4.8	mg/Kg	☼	03/11/19 14:00	03/13/19 12:52	20
Lead	**94**		1.5	0.43	mg/Kg	☼	03/11/19 14:00	03/13/19 12:48	2
Selenium	23	U	23	7.1	mg/Kg	☼	03/11/19 14:00	03/13/19 12:52	20
Thallium	15	U	15	6.0	mg/Kg	☼	03/11/19 14:00	03/13/19 12:52	20
Antimony	**2.6**		1.5	0.54	mg/Kg	☼	03/11/19 14:00	03/13/19 12:48	2
Barium	**150**		15	0.27	mg/Kg	☼	03/11/19 14:00	03/12/19 17:33	1
Beryllium	**0.55**		0.38	0.041	mg/Kg	☼	03/11/19 14:00	03/13/19 12:43	1
Cadmium	**0.72**		0.30	0.072	mg/Kg	☼	03/11/19 14:00	03/13/19 12:48	2
Chromium	**800**		0.38	0.11	mg/Kg	☼	03/11/19 14:00	03/12/19 17:33	1
Cobalt	**2.3**		0.75	0.15	mg/Kg	☼	03/11/19 14:00	03/12/19 17:33	1
Copper	**62**		3.8	0.36	mg/Kg	☼	03/11/19 14:00	03/13/19 12:48	2
Nickel	**22**		6.0	0.35	mg/Kg	☼	03/11/19 14:00	03/13/19 12:48	2
Silver	**2.9**	**B**	0.38	0.061	mg/Kg	☼	03/11/19 14:00	03/12/19 17:33	1
Magnesium	**28000**		380	35	mg/Kg	☼	03/11/19 14:00	03/12/19 17:33	1
Tin	**7.6**		7.5	2.7	mg/Kg	☼	03/11/19 14:00	03/12/19 17:33	1
Manganese	**15000**	**B**	23	4.7	mg/Kg	☼	03/11/19 14:00	03/13/19 12:52	20
Vanadium	**230**		7.5	1.2	mg/Kg	☼	03/11/19 14:00	03/13/19 12:48	2

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB04-0-2

Date Collected: 03/05/19 14:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-8

Matrix: Solid
Percent Solids: 91.5

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	260		3.8	1.0	mg/Kg	☼	03/11/19 14:00	03/12/19 17:33	1
Sodium	170	J	380	47	mg/Kg	☼	03/11/19 14:00	03/12/19 17:33	1
Iron	66000		15	10	mg/Kg	☼	03/11/19 14:00	03/13/19 12:48	2

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.080	J	0.11	0.019	mg/Kg	☼	03/11/19 16:00	03/13/19 11:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	1.6		0.59	0.23	mg/Kg	☼	03/11/19 13:18	03/11/19 15:55	1
Sulfide	94		33	16	mg/Kg	☼	03/11/19 09:23	03/11/19 11:35	1
Percent Solids	91.5		0.1	0.1	%			03/11/19 16:58	1
Percent Moisture	8.5		0.1	0.1	%			03/11/19 16:58	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB04-6-8

Date Collected: 03/05/19 15:10
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-9

Matrix: Solid
Percent Solids: 92.6

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	250	U	250	14	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
1,1,2,2-Tetrachloroethane	250	U F2	250	14	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	250	U	250	66	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
1,1,2-Trichloroethane	250	U	250	13	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
1,1-Dichloroethane	250	U	250	8.9	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
1,1-Dichloroethene	250	U	250	15	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
1,2,4-Trichlorobenzene	250	U	250	130	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
1,2-Dibromo-3-Chloropropane	490	U * F2	490	87	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Ethylene Dibromide	250	U *	250	78	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
1,2-Dichlorobenzene	250	U	250	21	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
1,2-Dichloroethane	250	U F1	250	12	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
1,2-Dichloropropane	250	U	250	7.9	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
1,3-Dichlorobenzene	250	U	250	21	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
1,4-Dichlorobenzene	250	U	250	17	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
2-Butanone (MEK)	990	U	990	160	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
2-Hexanone	990	U	990	260	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
4-Methyl-2-pentanone (MIBK)	990	U	990	240	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Acetone	990	U	990	240	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Benzene	250	U	250	7.9	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Dichlorobromomethane	250	U	250	28	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Bromoform	250	U	250	100	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Bromomethane	250	U	250	160	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Carbon disulfide	250	U F2	250	110	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Carbon tetrachloride	250	U	250	18	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Chlorobenzene	250	U	250	35	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Chloroethane	250	U	250	150	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Chloroform	250	U	250	8.9	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Chloromethane	250	U	250	65	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
cis-1,2-Dichloroethene	250	U	250	8.9	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
cis-1,3-Dichloropropene	250	U *	250	37	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Cyclohexane	490	U	490	160	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Chlorodibromomethane	250	U *	250	120	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Dichlorodifluoromethane	250	U	250	52	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Ethylbenzene	**26**	**J**	250	12	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Isopropylbenzene	250	U	250	38	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Methyl acetate	1200	U F1	1200	520	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Methyl tert-butyl ether	250	U	250	37	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Methylcyclohexane	**120**	**J**	490	65	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Methylene Chloride	490	U	490	380	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Styrene	250	U	250	12	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Tetrachloroethene	250	U	250	15	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Toluene	**110**	**J**	250	45	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
trans-1,2-Dichloroethene	250	U	250	15	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
trans-1,3-Dichloropropene	250	U *	250	100	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Trichloroethene	250	U F1	250	13	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Trichlorofluoromethane	250	U	250	46	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Vinyl chloride	250	U	250	9.9	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Xylenes, Total	**180**	**J**	490	23	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1
Naphthalene	250	U	250	120	ug/Kg	☼	03/13/19 11:20	03/14/19 14:40	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB04-6-8

Date Collected: 03/05/19 15:10
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-9

Matrix: Solid
Percent Solids: 92.6

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*91*		*49 - 147*	*03/13/19 11:20*	*03/14/19 14:40*	*1*
Dibromofluoromethane (Surr)	*88*		*49 - 138*	*03/13/19 11:20*	*03/14/19 14:40*	*1*
4-Bromofluorobenzene (Surr)	*97*		*48 - 151*	*03/13/19 11:20*	*03/14/19 14:40*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*53 - 155*	*03/13/19 11:20*	*03/14/19 14:40*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	54	U	54	18	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
bis (2-chloroisopropyl) ether	110	U	110	11	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
2,4,5-Trichlorophenol	160	U	160	74	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
2,4,6-Trichlorophenol	160	U	160	69	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
2,4-Dichlorophenol	160	U	160	47	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
2,4-Dimethylphenol	160	U	160	43	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
2,4-Dinitrophenol	360	U	360	150	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
2,4-Dinitrotoluene	220	U	220	67	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
2,6-Dinitrotoluene	220	U	220	60	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
2-Chloronaphthalene	54	U	54	15	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
2-Chlorophenol	54	U	54	11	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
2-Methylnaphthalene	**22**		16	2.1	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
2-Methylphenol	220	U	220	33	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
2-Nitroaniline	220	U	220	43	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
2-Nitrophenol	54	U	54	14	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
3,3'-Dichlorobenzidine	110	U	110	46	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
3-Nitroaniline	220	U	220	53	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
4,6-Dinitro-2-methylphenol	360	U	360	86	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
4-Bromophenyl phenyl ether	54	U	54	15	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
4-Chloro-3-methylphenol	160	U	160	48	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
4-Chloroaniline	160	U	160	32	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
4-Chlorophenyl phenyl ether	54	U	54	15	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
4-Nitroaniline	220	U	220	65	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
4-Nitrophenol	360	U	360	100	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Acenaphthene	**31**		16	3.1	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Acenaphthylene	16	U	16	4.3	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Acetophenone	110	U	110	12	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Anthracene	**74**		16	2.6	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Atrazine	220	U	220	39	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Benzaldehyde	110	U	110	25	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Benzo[a]anthracene	**200**		16	3.7	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Benzo[a]pyrene	**190**		16	10	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Benzo[b]fluoranthene	**230**		16	7.0	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Benzo[g,h,i]perylene	**150**		16	7.6	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Benzo[k]fluoranthene	**120**		16	7.5	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Bis(2-chloroethoxy)methane	110	U	110	13	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Bis(2-chloroethyl)ether	110	U	110	13	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Bis(2-ethylhexyl) phthalate	**100**	**F1**	75	55	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Butyl benzyl phthalate	75	U	75	24	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Caprolactam	360	U	360	81	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Carbazole	**39**	**J**	54	20	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Chrysene	**220**		16	1.6	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Dibenz(a,h)anthracene	**36**		16	7.5	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1

Client Sample ID: SB04-6-8

Date Collected: 03/05/19 15:10
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-9

Matrix: Solid
Percent Solids: 92.6

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	**20**	**J**	54	14	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Diethyl phthalate	75	U	75	33	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Dimethyl phthalate	75	U	75	15	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Di-n-butyl phthalate	75	U	75	24	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Di-n-octyl phthalate	75	U	75	30	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Fluoranthene	**470**		16	4.8	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Fluorene	**28**		16	3.0	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Hexachlorobenzene	16	U	16	3.1	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Hexachlorobutadiene	54	U	54	13	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Hexachlorocyclopentadiene	360	U F1	360	67	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Hexachloroethane	54	U	54	9.7	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Indeno[1,2,3-cd]pyrene	**120**		16	7.9	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Isophorone	54	U	54	13	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Naphthalene	**22**		16	2.6	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Nitrobenzene	110	U	110	14	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
N-Nitrosodi-n-propylamine	54	U	54	12	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
N-Nitrosodiphenylamine	54	U	54	13	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Pentachlorophenol	160	U	160	62	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Phenol	54	U	54	8.6	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Phenanthrene	**300**		16	2.4	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
Pyrene	**380**		16	2.3	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1
3 & 4 Methylphenol	430	U	430	31	ug/Kg	☼	03/12/19 07:38	03/18/19 16:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*90*		*32 - 120*	*03/12/19 07:38*	*03/18/19 16:00*	*1*
2-Fluorophenol (Surr)	*97*		*29 - 120*	*03/12/19 07:38*	*03/18/19 16:00*	*1*
2,4,6-Tribromophenol (Surr)	*73*		*10 - 120*	*03/12/19 07:38*	*03/18/19 16:00*	*1*
Nitrobenzene-d5 (Surr)	*89*		*30 - 120*	*03/12/19 07:38*	*03/18/19 16:00*	*1*
Phenol-d5 (Surr)	*93*		*29 - 120*	*03/12/19 07:38*	*03/18/19 16:00*	*1*
Terphenyl-d14 (Surr)	*109*		*41 - 120*	*03/12/19 07:38*	*03/18/19 16:00*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.2**		0.84	0.26	mg/Kg	☼	03/11/19 14:00	03/12/19 16:29	1
Lead	**7.1**		0.84	0.24	mg/Kg	☼	03/11/19 14:00	03/12/19 16:29	1
Selenium	**0.78**	**J**	1.3	0.39	mg/Kg	☼	03/11/19 14:00	03/12/19 16:29	1
Thallium	0.84	U	0.84	0.33	mg/Kg	☼	03/11/19 14:00	03/12/19 16:29	1
Antimony	0.84	U	0.84	0.30	mg/Kg	☼	03/11/19 14:00	03/12/19 16:29	1
Barium	**9.4**	**J**	17	0.30	mg/Kg	☼	03/11/19 14:00	03/12/19 16:29	1
Beryllium	**0.072**	**J**	0.42	0.045	mg/Kg	☼	03/11/19 14:00	03/12/19 16:29	1
Cadmium	**0.081**	**J**	0.17	0.040	mg/Kg	☼	03/11/19 14:00	03/12/19 16:29	1
Chromium	**23**	**F1**	0.42	0.13	mg/Kg	☼	03/11/19 14:00	03/12/19 16:29	1
Cobalt	**3.5**		0.84	0.17	mg/Kg	☼	03/11/19 14:00	03/12/19 16:29	1
Copper	**9.0**		2.1	0.20	mg/Kg	☼	03/11/19 14:00	03/12/19 16:29	1
Nickel	**6.2**		3.3	0.20	mg/Kg	☼	03/11/19 14:00	03/12/19 16:29	1
Silver	**0.20**	**J B**	0.42	0.068	mg/Kg	☼	03/11/19 14:00	03/12/19 16:29	1
Magnesium	**11000**	**F1 F2**	420	39	mg/Kg	☼	03/11/19 14:00	03/12/19 16:29	1
Tin	**3.0**	**J**	8.4	3.0	mg/Kg	☼	03/11/19 14:00	03/12/19 16:29	1
Manganese	**360**	**B**	1.3	0.26	mg/Kg	☼	03/11/19 14:00	03/12/19 16:29	1
Vanadium	**13**		4.2	0.69	mg/Kg	☼	03/11/19 14:00	03/12/19 16:29	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB04-6-8

Date Collected: 03/05/19 15:10
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-9

Matrix: Solid
Percent Solids: 92.6

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	24		4.2	1.1	mg/Kg	☼	03/11/19 14:00	03/12/19 16:29	1
Sodium	77	J	420	53	mg/Kg	☼	03/11/19 14:00	03/12/19 16:29	1
Iron	9300	F2	8.4	5.8	mg/Kg	☼	03/11/19 14:00	03/12/19 16:29	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.12	U	0.12	0.021	mg/Kg	☼	03/11/19 16:00	03/13/19 10:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.59	U	0.59	0.22	mg/Kg	☼	03/11/19 13:18	03/11/19 15:57	1
Sulfide	83		32	16	mg/Kg	☼	03/11/19 09:23	03/11/19 11:35	1
Percent Solids	92.6		0.1	0.1	%			03/11/19 16:58	1
Percent Moisture	7.4		0.1	0.1	%			03/11/19 16:58	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB05-0-2

Date Collected: 03/06/19 08:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-10

Matrix: Solid
Percent Solids: 93.3

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**65**	**J ***	260	15	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
1,1,2,2-Tetrachloroethane	260	U	260	15	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	260	U	260	70	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
1,1,2-Trichloroethane	260	U	260	14	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
1,1-Dichloroethane	260	U	260	9.4	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
1,1-Dichloroethene	260	U	260	16	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
1,2,4-Trichlorobenzene	260	U	260	140	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
1,2-Dibromo-3-Chloropropane	520	U *	520	92	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Ethylene Dibromide	260	U *	260	83	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
1,2-Dichlorobenzene	260	U	260	22	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
1,2-Dichloroethane	260	U	260	13	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
1,2-Dichloropropane	260	U	260	8.4	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
1,3-Dichlorobenzene	260	U	260	22	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
1,4-Dichlorobenzene	260	U	260	18	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
2-Butanone (MEK)	1000	U	1000	160	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
2-Hexanone	1000	U	1000	280	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
4-Methyl-2-pentanone (MIBK)	1000	U	1000	250	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Acetone	1000	U	1000	260	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Benzene	**8.4**	**J**	260	8.4	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Dichlorobromomethane	260	U	260	29	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Bromoform	260	U *	260	110	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Bromomethane	260	U	260	170	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Carbon disulfide	260	U	260	110	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Carbon tetrachloride	260	U *	260	19	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Chlorobenzene	260	U	260	37	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Chloroethane	260	U F2	260	160	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Chloroform	260	U	260	9.4	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Chloromethane	260	U	260	69	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
cis-1,2-Dichloroethene	260	U	260	9.4	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
cis-1,3-Dichloropropene	260	U *	260	39	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Cyclohexane	520	U	520	170	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Chlorodibromomethane	260	U *	260	120	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Dichlorodifluoromethane	260	U	260	56	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Ethylbenzene	**18**	**J**	260	13	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Isopropylbenzene	260	U	260	40	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Methyl acetate	1300	U	1300	550	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Methyl tert-butyl ether	260	U	260	39	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Methylcyclohexane	**80**	**J**	520	69	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Methylene Chloride	520	U	520	400	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Styrene	260	U	260	13	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Tetrachloroethene	**190**	**J**	260	16	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Toluene	**83**	**J**	260	47	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
trans-1,2-Dichloroethene	260	U	260	16	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
trans-1,3-Dichloropropene	260	U *	260	110	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Trichloroethene	260	U	260	14	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Trichlorofluoromethane	260	U	260	48	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Vinyl chloride	260	U	260	10	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Xylenes, Total	**85**	**J**	520	24	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1
Naphthalene	**190**	**J ***	260	120	ug/Kg	☼	03/13/19 13:53	03/15/19 17:45	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB05-0-2

Date Collected: 03/06/19 08:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-10

Matrix: Solid
Percent Solids: 93.3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*84*		*49 - 147*	*03/13/19 13:53*	*03/15/19 17:45*	*1*
Dibromofluoromethane (Surr)	*79*		*49 - 138*	*03/13/19 13:53*	*03/15/19 17:45*	*1*
4-Bromofluorobenzene (Surr)	*83*		*48 - 151*	*03/13/19 13:53*	*03/15/19 17:45*	*1*
1,2-Dichloroethane-d4 (Surr)	*80*		*53 - 155*	*03/13/19 13:53*	*03/15/19 17:45*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	110	U	110	36	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
bis (2-chloroisopropyl) ether	210	U	210	21	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
2,4,5-Trichlorophenol	320	U	320	150	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
2,4,6-Trichlorophenol	320	U	320	140	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
2,4-Dichlorophenol	320	U	320	93	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
2,4-Dimethylphenol	320	U	320	85	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
2,4-Dinitrophenol	700	U F1	700	300	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
2,4-Dinitrotoluene	420	U	420	130	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
2,6-Dinitrotoluene	420	U	420	120	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
2-Chloronaphthalene	110	U	110	30	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
2-Chlorophenol	110	U	110	21	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
2-Methylnaphthalene	**150**		32	4.2	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
2-Methylphenol	420	U	420	66	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
2-Nitroaniline	420	U	420	85	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
2-Nitrophenol	110	U	110	28	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
3,3'-Dichlorobenzidine	210	U	210	91	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
3-Nitroaniline	420	U	420	100	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
4,6-Dinitro-2-methylphenol	700	U	700	170	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
4-Bromophenyl phenyl ether	110	U	110	30	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
4-Chloro-3-methylphenol	320	U	320	96	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
4-Chloroaniline	320	U	320	64	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
4-Chlorophenyl phenyl ether	110	U	110	30	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
4-Nitroaniline	420	U	420	130	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
4-Nitrophenol	700	U	700	200	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Acenaphthene	**87**		32	6.1	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Acenaphthylene	**39**		32	8.5	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Acetophenone	210	U	210	23	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Anthracene	**230**		32	5.1	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Atrazine	420	U	420	76	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Benzaldehyde	210	U	210	49	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Benzo[a]anthracene	**740**		32	7.2	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Benzo[a]pyrene	**710**		32	20	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Benzo[b]fluoranthene	**1100**		32	14	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Benzo[g,h,i]perylene	**640**		32	15	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Benzo[k]fluoranthene	**380**		32	15	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Bis(2-chloroethoxy)methane	210	U	210	25	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Bis(2-chloroethyl)ether	210	U	210	25	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Bis(2-ethylhexyl) phthalate	150	U	150	110	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Butyl benzyl phthalate	150	U	150	47	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Caprolactam	700	U	700	160	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Carbazole	**120**		110	40	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Chrysene	**790**		32	3.2	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Dibenz(a,h)anthracene	**120**		32	15	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB05-0-2

Date Collected: 03/06/19 08:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-10

Matrix: Solid
Percent Solids: 93.3

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	**97**	**J**	110	28	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Diethyl phthalate	150	U	150	66	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Dimethyl phthalate	150	U	150	30	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Di-n-butyl phthalate	150	U	150	47	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Di-n-octyl phthalate	150	U	150	59	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Fluoranthene	**1600**		32	9.5	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Fluorene	**76**		32	5.8	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Hexachlorobenzene	32	U	32	6.1	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Hexachlorobutadiene	110	U	110	25	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Hexachlorocyclopentadiene	700	U F1	700	130	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Hexachloroethane	110	U	110	19	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Indeno[1,2,3-cd]pyrene	**480**		32	16	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Isophorone	110	U	110	25	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Naphthalene	**200**		32	5.1	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Nitrobenzene	210	U	210	28	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
N-Nitrosodi-n-propylamine	110	U	110	23	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
N-Nitrosodiphenylamine	110	U	110	25	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Pentachlorophenol	320	U	320	120	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Phenol	110	U	110	17	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Phenanthrene	**1000**		32	4.7	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
Pyrene	**1300**		32	4.5	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2
3 & 4 Methylphenol	850	U	850	62	ug/Kg	☼	03/16/19 10:43	03/19/19 17:07	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*76*		*32 - 120*	*03/16/19 10:43*	*03/19/19 17:07*	*2*
2-Fluorophenol (Surr)	*73*		*29 - 120*	*03/16/19 10:43*	*03/19/19 17:07*	*2*
2,4,6-Tribromophenol (Surr)	*64*		*10 - 120*	*03/16/19 10:43*	*03/19/19 17:07*	*2*
Nitrobenzene-d5 (Surr)	*67*		*30 - 120*	*03/16/19 10:43*	*03/19/19 17:07*	*2*
Phenol-d5 (Surr)	*77*		*29 - 120*	*03/16/19 10:43*	*03/19/19 17:07*	*2*
Terphenyl-d14 (Surr)	*95*		*41 - 120*	*03/16/19 10:43*	*03/19/19 17:07*	*2*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.7**	**J**	5.3	1.7	mg/Kg	☼	03/11/19 14:00	03/14/19 17:43	5
Lead	**37**	**F1**	1.1	0.30	mg/Kg	☼	03/11/19 14:00	03/12/19 19:37	1
Selenium	8.0	U	8.0	2.5	mg/Kg	☼	03/11/19 14:00	03/14/19 17:43	5
Thallium	**6.7**		5.3	2.1	mg/Kg	☼	03/11/19 14:00	03/14/19 17:43	5
Antimony	1.1	U F1 F2	1.1	0.38	mg/Kg	☼	03/11/19 14:00	03/12/19 19:37	1
Barium	**140**	**F1**	21	0.38	mg/Kg	☼	03/11/19 14:00	03/12/19 19:37	1
Beryllium	**2.4**	**F1**	0.53	0.057	mg/Kg	☼	03/11/19 14:00	03/12/19 19:37	1
Cadmium	**0.59**		0.21	0.051	mg/Kg	☼	03/11/19 14:00	03/12/19 19:37	1
Chromium	**120**		2.7	0.80	mg/Kg	☼	03/11/19 14:00	03/14/19 17:43	5
Cobalt	**1.2**		1.1	0.21	mg/Kg	☼	03/11/19 14:00	03/12/19 19:37	1
Copper	**20**		13	1.3	mg/Kg	☼	03/11/19 14:00	03/14/19 17:43	5
Nickel	**9.0**		4.2	0.25	mg/Kg	☼	03/11/19 14:00	03/12/19 19:37	1
Silver	0.53	U	0.53	0.086	mg/Kg	☼	03/11/19 14:00	03/12/19 19:37	1
Magnesium	**26000**	**F2**	530	49	mg/Kg	☼	03/11/19 14:00	03/12/19 19:37	1
Tin	**5.2**	**J**	11	3.9	mg/Kg	☼	03/11/19 14:00	03/12/19 19:37	1
Manganese	**4200**		8.0	1.6	mg/Kg	☼	03/11/19 14:00	03/14/19 17:43	5
Vanadium	**46**	**F1 F2**	5.3	0.87	mg/Kg	☼	03/11/19 14:00	03/12/19 19:37	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB05-0-2

Date Collected: 03/06/19 08:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-10

Matrix: Solid
Percent Solids: 93.3

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	150	F1	5.3	1.5	mg/Kg	☼	03/11/19 14:00	03/12/19 19:37	1
Sodium	810		530	67	mg/Kg	☼	03/11/19 14:00	03/12/19 19:37	1
Iron	26000		11	7.4	mg/Kg	☼	03/11/19 14:00	03/12/19 19:37	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.049	J	0.12	0.021	mg/Kg	☼	03/11/19 16:00	03/13/19 11:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.60		0.54	0.20	mg/Kg	☼	03/11/19 13:18	03/11/19 16:06	1
Sulfide	430		32	16	mg/Kg	☼	03/11/19 09:23	03/11/19 11:35	1
Percent Solids	93.3		0.1	0.1	%			03/11/19 16:53	1
Percent Moisture	6.7		0.1	0.1	%			03/11/19 16:53	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB05-6-8

Date Collected: 03/06/19 08:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-11

Matrix: Solid
Percent Solids: 93.3

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	280	U *	280	16	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
1,1,2,2-Tetrachloroethane	280	U	280	16	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	280	U	280	75	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
1,1,2-Trichloroethane	280	U	280	15	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
1,1-Dichloroethane	280	U	280	10	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
1,1-Dichloroethene	280	U	280	17	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
1,2,4-Trichlorobenzene	280	U	280	150	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
1,2-Dibromo-3-Chloropropane	560	U *	560	99	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Ethylene Dibromide	280	U *	280	89	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
1,2-Dichlorobenzene	280	U	280	24	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
1,2-Dichloroethane	280	U	280	13	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
1,2-Dichloropropane	280	U	280	9.0	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
1,3-Dichlorobenzene	280	U	280	24	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
1,4-Dichlorobenzene	280	U	280	19	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
2-Butanone (MEK)	1100	U	1100	180	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
2-Hexanone	1100	U	1100	290	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
4-Methyl-2-pentanone (MIBK)	1100	U	1100	270	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Acetone	1100	U	1100	270	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Benzene	280	U	280	9.0	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Dichlorobromomethane	280	U	280	31	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Bromoform	280	U *	280	120	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Bromomethane	280	U	280	190	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Carbon disulfide	280	U	280	120	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Carbon tetrachloride	280	U *	280	20	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Chlorobenzene	280	U	280	39	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Chloroethane	280	U	280	170	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Chloroform	280	U	280	10	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Chloromethane	280	U	280	74	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
cis-1,2-Dichloroethene	280	U	280	10	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
cis-1,3-Dichloropropene	280	U *	280	41	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Cyclohexane	560	U	560	180	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Chlorodibromomethane	280	U *	280	130	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Dichlorodifluoromethane	280	U	280	59	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Ethylbenzene	280	U	280	13	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Isopropylbenzene	280	U	280	43	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Methyl acetate	1400	U	1400	590	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Methyl tert-butyl ether	280	U	280	41	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Methylcyclohexane	560	U	560	74	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Methylene Chloride	560	U	560	430	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Styrene	280	U	280	13	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Tetrachloroethene	280	U	280	17	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Toluene	280	U	280	50	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
trans-1,2-Dichloroethene	280	U	280	17	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
trans-1,3-Dichloropropene	280	U *	280	120	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Trichloroethene	280	U	280	15	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Trichlorofluoromethane	280	U	280	52	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Vinyl chloride	280	U	280	11	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Xylenes, Total	560	U	560	26	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1
Naphthalene	280	U *	280	130	ug/Kg	☼	03/13/19 13:53	03/15/19 11:02	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB05-6-8

Date Collected: 03/06/19 08:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-11

Matrix: Solid
Percent Solids: 93.3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*87*		*49 - 147*	*03/13/19 13:53*	*03/15/19 11:02*	*1*
Dibromofluoromethane (Surr)	*84*		*49 - 138*	*03/13/19 13:53*	*03/15/19 11:02*	*1*
4-Bromofluorobenzene (Surr)	*88*		*48 - 151*	*03/13/19 13:53*	*03/15/19 11:02*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*53 - 155*	*03/13/19 13:53*	*03/15/19 11:02*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	53	U	53	18	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
bis (2-chloroisopropyl) ether	110	U	110	11	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
2,4,5-Trichlorophenol	160	U	160	74	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
2,4,6-Trichlorophenol	160	U	160	68	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
2,4-Dichlorophenol	160	U	160	47	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
2,4-Dimethylphenol	160	U	160	43	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
2,4-Dinitrophenol	350	U	350	150	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
2,4-Dinitrotoluene	210	U	210	66	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
2,6-Dinitrotoluene	210	U	210	60	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
2-Chloronaphthalene	53	U	53	15	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
2-Chlorophenol	53	U	53	11	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
2-Methylnaphthalene	**10**	**J**	16	2.1	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
2-Methylphenol	210	U	210	33	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
2-Nitroaniline	210	U	210	43	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
2-Nitrophenol	53	U	53	14	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
3,3'-Dichlorobenzidine	110	U	110	46	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
3-Nitroaniline	210	U	210	52	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
4,6-Dinitro-2-methylphenol	350	U	350	85	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
4-Bromophenyl phenyl ether	53	U	53	15	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
4-Chloro-3-methylphenol	160	U	160	48	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
4-Chloroaniline	160	U	160	32	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
4-Chlorophenyl phenyl ether	53	U	53	15	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
4-Nitroaniline	210	U	210	64	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
4-Nitrophenol	350	U	350	100	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Acenaphthene	16	U	16	3.1	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Acenaphthylene	16	U	16	4.3	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Acetophenone	110	U	110	12	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Anthracene	**4.8**	**J**	16	2.6	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Atrazine	210	U	210	38	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Benzaldehyde	110	U	110	25	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Benzo[a]anthracene	**29**		16	3.6	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Benzo[a]pyrene	**37**		16	10	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Benzo[b]fluoranthene	**60**		16	6.9	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Benzo[g,h,i]perylene	**37**		16	7.6	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Benzo[k]fluoranthene	**20**		16	7.4	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Bis(2-chloroethoxy)methane	110	U	110	13	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Bis(2-chloroethyl)ether	110	U	110	13	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Bis(2-ethylhexyl) phthalate	75	U	75	54	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Butyl benzyl phthalate	75	U	75	23	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Caprolactam	350	U	350	80	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Carbazole	53	U	53	20	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Chrysene	**43**		16	1.6	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Dibenz(a,h)anthracene	**13**	**J**	16	7.4	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1

Client Sample ID: SB05-6-8

Date Collected: 03/06/19 08:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-11

Matrix: Solid
Percent Solids: 93.3

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	53	U	53	14	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Diethyl phthalate	75	U	75	33	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Dimethyl phthalate	75	U	75	15	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Di-n-butyl phthalate	75	U	75	23	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Di-n-octyl phthalate	75	U	75	30	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Fluoranthene	**42**		16	4.7	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Fluorene	16	U	16	2.9	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Hexachlorobenzene	16	U	16	3.0	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Hexachlorobutadiene	53	U	53	13	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Hexachlorocyclopentadiene	350	U	350	66	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Hexachloroethane	53	U	53	9.6	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Indeno[1,2,3-cd]pyrene	**28**		16	7.9	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Isophorone	53	U	53	13	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Naphthalene	**10**	**J**	16	2.6	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Nitrobenzene	110	U	110	14	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
N-Nitrosodi-n-propylamine	53	U	53	12	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
N-Nitrosodiphenylamine	53	U	53	13	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Pentachlorophenol	160	U	160	62	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Phenol	53	U	53	8.5	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Phenanthrene	**28**		16	2.4	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
Pyrene	**43**		16	2.3	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1
3 & 4 Methylphenol	430	U	430	31	ug/Kg	☼	03/16/19 10:19	03/19/19 15:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*70*		*32 - 120*	*03/16/19 10:19*	*03/19/19 15:00*	*1*
2-Fluorophenol (Surr)	*73*		*29 - 120*	*03/16/19 10:19*	*03/19/19 15:00*	*1*
2,4,6-Tribromophenol (Surr)	*45*		*10 - 120*	*03/16/19 10:19*	*03/19/19 15:00*	*1*
Nitrobenzene-d5 (Surr)	*60*		*30 - 120*	*03/16/19 10:19*	*03/19/19 15:00*	*1*
Phenol-d5 (Surr)	*71*		*29 - 120*	*03/16/19 10:19*	*03/19/19 15:00*	*1*
Terphenyl-d14 (Surr)	*85*		*41 - 120*	*03/16/19 10:19*	*03/19/19 15:00*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.4**		1.0	0.33	mg/Kg	☼	03/11/19 14:00	03/12/19 17:37	1
Lead	**16**		1.0	0.29	mg/Kg	☼	03/11/19 14:00	03/12/19 17:37	1
Selenium	**0.50**	**J**	1.5	0.48	mg/Kg	☼	03/11/19 14:00	03/12/19 17:37	1
Thallium	1.0	U	1.0	0.41	mg/Kg	☼	03/11/19 14:00	03/12/19 17:37	1
Antimony	**0.59**	**J**	1.0	0.37	mg/Kg	☼	03/11/19 14:00	03/12/19 17:37	1
Barium	**11**	**J**	21	0.37	mg/Kg	☼	03/11/19 14:00	03/12/19 17:37	1
Beryllium	**0.097**	**J ^**	0.52	0.056	mg/Kg	☼	03/11/19 14:00	03/12/19 17:37	1
Cadmium	**0.26**		0.21	0.049	mg/Kg	☼	03/11/19 14:00	03/12/19 17:37	1
Chromium	**7.4**		0.52	0.16	mg/Kg	☼	03/11/19 14:00	03/12/19 17:37	1
Cobalt	**1.4**		1.0	0.21	mg/Kg	☼	03/11/19 14:00	03/12/19 17:37	1
Copper	**7.3**		2.6	0.24	mg/Kg	☼	03/11/19 14:00	03/12/19 17:37	1
Nickel	**4.0**	**J**	4.1	0.24	mg/Kg	☼	03/11/19 14:00	03/12/19 17:37	1
Silver	**0.26**	**J B**	0.52	0.084	mg/Kg	☼	03/11/19 14:00	03/12/19 17:37	1
Magnesium	**8200**		520	48	mg/Kg	☼	03/11/19 14:00	03/12/19 17:37	1
Tin	**3.8**	**J**	10	3.8	mg/Kg	☼	03/11/19 14:00	03/12/19 17:37	1
Manganese	**220**	**B**	1.5	0.32	mg/Kg	☼	03/11/19 14:00	03/12/19 17:37	1
Vanadium	**9.2**		5.2	0.85	mg/Kg	☼	03/11/19 14:00	03/12/19 17:37	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB05-6-8

Date Collected: 03/06/19 08:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-11

Matrix: Solid
Percent Solids: 93.3

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	**40**		5.2	1.4	mg/Kg	☼	03/11/19 14:00	03/12/19 17:37	1
Sodium	**89**	**J**	520	65	mg/Kg	☼	03/11/19 14:00	03/12/19 17:37	1
Iron	**7000**		10	7.2	mg/Kg	☼	03/11/19 14:00	03/12/19 17:37	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.11	U	0.11	0.020	mg/Kg	☼	03/11/19 16:00	03/13/19 11:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.50	U	0.50	0.19	mg/Kg	☼	03/12/19 13:31	03/12/19 14:26	1
Sulfide	32	U	32	16	mg/Kg	☼	03/11/19 09:23	03/11/19 11:35	1
Percent Solids	**93.3**		0.1	0.1	%			03/11/19 16:58	1
Percent Moisture	**6.7**		0.1	0.1	%			03/11/19 16:58	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: RINSE BLANK 1

Lab Sample ID: 240-109180-12

Date Collected: 03/06/19 10:45
Date Received: 03/09/19 09:50

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			03/14/19 19:43	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			03/14/19 19:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			03/14/19 19:43	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			03/14/19 19:43	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			03/14/19 19:43	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			03/14/19 19:43	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			03/14/19 19:43	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.91	ug/L			03/14/19 19:43	1
Ethylene Dibromide	1.0	U	1.0	0.12	ug/L			03/14/19 19:43	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			03/14/19 19:43	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/14/19 19:43	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			03/14/19 19:43	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			03/14/19 19:43	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			03/14/19 19:43	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			03/14/19 19:43	1
2-Hexanone	10	U	10	0.54	ug/L			03/14/19 19:43	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			03/14/19 19:43	1
Acetone	10	U	10	5.4	ug/L			03/14/19 19:43	1
Benzene	1.0	U	1.0	0.13	ug/L			03/14/19 19:43	1
Dichlorobromomethane	1.0	U	1.0	0.17	ug/L			03/14/19 19:43	1
Bromoform	1.0	U	1.0	0.76	ug/L			03/14/19 19:43	1
Bromomethane	1.0	U	1.0	0.42	ug/L			03/14/19 19:43	1
Carbon disulfide	1.0	U	1.0	0.28	ug/L			03/14/19 19:43	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			03/14/19 19:43	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/14/19 19:43	1
Chloroethane	1.0	U	1.0	0.83	ug/L			03/14/19 19:43	1
Chloroform	1.0	U	1.0	0.13	ug/L			03/14/19 19:43	1
Chloromethane	1.0	U	1.0	0.20	ug/L			03/14/19 19:43	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			03/14/19 19:43	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			03/14/19 19:43	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			03/14/19 19:43	1
Chlorodibromomethane	1.0	U	1.0	0.39	ug/L			03/14/19 19:43	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			03/14/19 19:43	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			03/14/19 19:43	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			03/14/19 19:43	1
Methyl acetate	10	U	10	1.7	ug/L			03/14/19 19:43	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			03/14/19 19:43	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			03/14/19 19:43	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			03/14/19 19:43	1
Styrene	1.0	U	1.0	0.10	ug/L			03/14/19 19:43	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			03/14/19 19:43	1
Toluene	1.0	U	1.0	0.14	ug/L			03/14/19 19:43	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			03/14/19 19:43	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			03/14/19 19:43	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			03/14/19 19:43	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			03/14/19 19:43	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			03/14/19 19:43	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			03/14/19 19:43	1
Naphthalene	1.0	U	1.0	0.32	ug/L			03/14/19 19:43	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: RINSE BLANK 1

Lab Sample ID: 240-109180-12

Date Collected: 03/06/19 10:45
Date Received: 03/09/19 09:50

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*91*		*70 - 123*		*03/14/19 19:43*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 128*		*03/14/19 19:43*	*1*
4-Bromofluorobenzene (Surr)	*94*		*59 - 120*		*03/14/19 19:43*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 121*		*03/14/19 19:43*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.95	U	0.95	0.47	ug/L		03/11/19 11:50	03/18/19 12:00	1
bis (2-chloroisopropyl) ether	0.95	U	0.95	0.52	ug/L		03/11/19 11:50	03/18/19 12:00	1
2,4,5-Trichlorophenol	4.8	U	4.8	1.9	ug/L		03/11/19 11:50	03/18/19 12:00	1
2,4,6-Trichlorophenol	4.8	U	4.8	1.7	ug/L		03/11/19 11:50	03/18/19 12:00	1
2,4-Dichlorophenol	1.9	U	1.9	0.25	ug/L		03/11/19 11:50	03/18/19 12:00	1
2,4-Dimethylphenol	1.9	U	1.9	0.49	ug/L		03/11/19 11:50	03/18/19 12:00	1
2,4-Dinitrophenol	9.5	U	9.5	5.9	ug/L		03/11/19 11:50	03/18/19 12:00	1
2,4-Dinitrotoluene	4.8	U	4.8	2.0	ug/L		03/11/19 11:50	03/18/19 12:00	1
2,6-Dinitrotoluene	4.8	U	4.8	2.0	ug/L		03/11/19 11:50	03/18/19 12:00	1
2-Chloronaphthalene	0.95	U	0.95	0.46	ug/L		03/11/19 11:50	03/18/19 12:00	1
2-Chlorophenol	0.95	U	0.95	0.26	ug/L		03/11/19 11:50	03/18/19 12:00	1
2-Methylnaphthalene	0.19	U	0.19	0.11	ug/L		03/11/19 11:50	03/18/19 12:00	1
2-Methylphenol	0.95	U	0.95	0.20	ug/L		03/11/19 11:50	03/18/19 12:00	1
2-Nitroaniline	1.9	U	1.9	0.49	ug/L		03/11/19 11:50	03/18/19 12:00	1
2-Nitrophenol	1.9	U	1.9	0.54	ug/L		03/11/19 11:50	03/18/19 12:00	1
3,3'-Dichlorobenzidine	4.8	U	4.8	1.1	ug/L		03/11/19 11:50	03/18/19 12:00	1
3-Nitroaniline	1.9	U	1.9	0.54	ug/L		03/11/19 11:50	03/18/19 12:00	1
4,6-Dinitro-2-methylphenol	4.8	U	4.8	2.7	ug/L		03/11/19 11:50	03/18/19 12:00	1
4-Bromophenyl phenyl ether	1.9	U	1.9	0.48	ug/L		03/11/19 11:50	03/18/19 12:00	1
4-Chloro-3-methylphenol	1.9	U	1.9	0.28	ug/L		03/11/19 11:50	03/18/19 12:00	1
4-Chloroaniline	1.9	U	1.9	0.30	ug/L		03/11/19 11:50	03/18/19 12:00	1
4-Chlorophenyl phenyl ether	1.9	U	1.9	0.52	ug/L		03/11/19 11:50	03/18/19 12:00	1
4-Nitroaniline	1.9	U	1.9	0.87	ug/L		03/11/19 11:50	03/18/19 12:00	1
4-Nitrophenol	9.5	U	9.5	2.1	ug/L		03/11/19 11:50	03/18/19 12:00	1
Acenaphthene	0.19	U	0.19	0.16	ug/L		03/11/19 11:50	03/18/19 12:00	1
Acenaphthylene	0.19	U	0.19	0.12	ug/L		03/11/19 11:50	03/18/19 12:00	1
Acetophenone	0.95	U	0.95	0.35	ug/L		03/11/19 11:50	03/18/19 12:00	1
Anthracene	0.19	U	0.19	0.13	ug/L		03/11/19 11:50	03/18/19 12:00	1
Atrazine	1.9	U	1.9	0.91	ug/L		03/11/19 11:50	03/18/19 12:00	1
Benzaldehyde	**1.4**	**J**	1.9	0.72	ug/L		03/11/19 11:50	03/18/19 12:00	1
Benzo[a]anthracene	0.19	U	0.19	0.16	ug/L		03/11/19 11:50	03/18/19 12:00	1
Benzo[a]pyrene	0.19	U	0.19	0.16	ug/L		03/11/19 11:50	03/18/19 12:00	1
Benzo[b]fluoranthene	0.19	U	0.19	0.15	ug/L		03/11/19 11:50	03/18/19 12:00	1
Benzo[g,h,i]perylene	0.19	U	0.19	0.17	ug/L		03/11/19 11:50	03/18/19 12:00	1
Benzo[k]fluoranthene	0.19	U	0.19	0.13	ug/L		03/11/19 11:50	03/18/19 12:00	1
Bis(2-chloroethoxy)methane	0.95	U	0.95	0.43	ug/L		03/11/19 11:50	03/18/19 12:00	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.38	ug/L		03/11/19 11:50	03/18/19 12:00	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	2.1	ug/L		03/11/19 11:50	03/18/19 12:00	1
Butyl benzyl phthalate	1.9	U	1.9	0.63	ug/L		03/11/19 11:50	03/18/19 12:00	1
Caprolactam	4.8	U	4.8	0.89	ug/L		03/11/19 11:50	03/18/19 12:00	1
Carbazole	0.95	U	0.95	0.47	ug/L		03/11/19 11:50	03/18/19 12:00	1
Chrysene	0.19	U	0.19	0.18	ug/L		03/11/19 11:50	03/18/19 12:00	1
Dibenz(a,h)anthracene	0.19	U	0.19	0.14	ug/L		03/11/19 11:50	03/18/19 12:00	1

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: RINSE BLANK 1

Lab Sample ID: 240-109180-12

Date Collected: 03/06/19 10:45
Date Received: 03/09/19 09:50

Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	0.95	U	0.95	0.53	ug/L		03/11/19 11:50	03/18/19 12:00	1
Diethyl phthalate	4.8	U	4.8	3.6	ug/L		03/11/19 11:50	03/18/19 12:00	1
Dimethyl phthalate	1.9	U	1.9	0.49	ug/L		03/11/19 11:50	03/18/19 12:00	1
Di-n-butyl phthalate	4.8	U	4.8	1.7	ug/L		03/11/19 11:50	03/18/19 12:00	1
Di-n-octyl phthalate	1.9	U	1.9	0.78	ug/L		03/11/19 11:50	03/18/19 12:00	1
Fluoranthene	0.19	U	0.19	0.15	ug/L		03/11/19 11:50	03/18/19 12:00	1
Fluorene	0.19	U	0.19	0.16	ug/L		03/11/19 11:50	03/18/19 12:00	1
Hexachlorobenzene	0.19	U	0.19	0.15	ug/L		03/11/19 11:50	03/18/19 12:00	1
Hexachlorobutadiene	0.95	U	0.95	0.52	ug/L		03/11/19 11:50	03/18/19 12:00	1
Hexachlorocyclopentadiene	9.5	U	9.5	1.7	ug/L		03/11/19 11:50	03/18/19 12:00	1
Hexachloroethane	0.95	U	0.95	0.38	ug/L		03/11/19 11:50	03/18/19 12:00	1
Indeno[1,2,3-cd]pyrene	0.19	U	0.19	0.13	ug/L		03/11/19 11:50	03/18/19 12:00	1
Isophorone	0.95	U	0.95	0.31	ug/L		03/11/19 11:50	03/18/19 12:00	1
Naphthalene	0.19	U	0.19	0.10	ug/L		03/11/19 11:50	03/18/19 12:00	1
Nitrobenzene	0.95	U	0.95	0.49	ug/L		03/11/19 11:50	03/18/19 12:00	1
N-Nitrosodi-n-propylamine	0.95	U	0.95	0.24	ug/L		03/11/19 11:50	03/18/19 12:00	1
N-Nitrosodiphenylamine	0.95	U	0.95	0.42	ug/L		03/11/19 11:50	03/18/19 12:00	1
Pentachlorophenol	9.5	U	9.5	3.0	ug/L		03/11/19 11:50	03/18/19 12:00	1
Phenol	0.95	U	0.95	0.12	ug/L		03/11/19 11:50	03/18/19 12:00	1
Phenanthrene	0.19	U	0.19	0.16	ug/L		03/11/19 11:50	03/18/19 12:00	1
Pyrene	0.19	U	0.19	0.17	ug/L		03/11/19 11:50	03/18/19 12:00	1
3 & 4 Methylphenol	1.9	U	1.9	0.18	ug/L		03/11/19 11:50	03/18/19 12:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*82*		*38 - 120*	*03/11/19 11:50*	*03/18/19 12:00*	*1*
2-Fluorophenol (Surr)	*48*		*10 - 120*	*03/11/19 11:50*	*03/18/19 12:00*	*1*
2,4,6-Tribromophenol (Surr)	*45*		*28 - 120*	*03/11/19 11:50*	*03/18/19 12:00*	*1*
Nitrobenzene-d5 (Surr)	*82*		*32 - 120*	*03/11/19 11:50*	*03/18/19 12:00*	*1*
Phenol-d5 (Surr)	*28*		*10 - 120*	*03/11/19 11:50*	*03/18/19 12:00*	*1*
Terphenyl-d14 (Surr)	*76*		*23 - 127*	*03/11/19 11:50*	*03/18/19 12:00*	*1*

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	10	U	10	7.5	ug/L		03/11/19 14:00	03/12/19 18:17	1
Arsenic	10	U	10	4.1	ug/L		03/11/19 14:00	03/12/19 18:17	1
Barium	200	U	200	1.3	ug/L		03/11/19 14:00	03/12/19 18:17	1
Beryllium	5.0	U	5.0	0.60	ug/L		03/11/19 14:00	03/12/19 18:17	1
Cadmium	2.0	U	2.0	0.20	ug/L		03/11/19 14:00	03/12/19 18:17	1
Cobalt	10	U	10	0.75	ug/L		03/11/19 14:00	03/12/19 18:17	1
Chromium	5.0	U	5.0	0.63	ug/L		03/11/19 14:00	03/12/19 18:17	1
Copper	25	U	25	3.5	ug/L		03/11/19 14:00	03/12/19 18:17	1
Magnesium	5000	U	5000	780	ug/L		03/11/19 14:00	03/12/19 18:17	1
Manganese	15	U	15	2.1	ug/L		03/11/19 14:00	03/12/19 18:17	1
Nickel	40	U	40	2.2	ug/L		03/11/19 14:00	03/12/19 18:17	1
Lead	5.0	U	5.0	2.8	ug/L		03/11/19 14:00	03/12/19 18:17	1
Selenium	15	U	15	6.0	ug/L		03/11/19 14:00	03/12/19 18:17	1
Tin	100	U	100	5.3	ug/L		03/11/19 14:00	03/12/19 18:17	1
Thallium	10	U	10	2.7	ug/L		03/11/19 14:00	03/12/19 18:17	1
Vanadium	50	U	50	5.6	ug/L		03/11/19 14:00	03/12/19 18:17	1
Zinc	50	U	50	9.7	ug/L		03/11/19 14:00	03/12/19 18:17	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: RINSE BLANK 1

Lab Sample ID: 240-109180-12

Date Collected: 03/06/19 10:45
Date Received: 03/09/19 09:50

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	5.0	U	5.0	0.62	ug/L		03/11/19 14:00	03/12/19 18:17	1
Sodium	5000	U	5000	560	ug/L		03/11/19 14:00	03/12/19 18:17	1
Iron	**59**	**J**	100	26	ug/L		03/11/19 14:00	03/12/19 18:17	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.13	ug/L		03/11/19 12:00	03/12/19 14:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		03/11/19 10:29	03/11/19 11:54	1
Sulfide	**1.7**	**J**	3.0	1.4	mg/L		03/12/19 12:18	03/12/19 13:24	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: RINSE BLANK 2

Lab Sample ID: 240-109180-13

Date Collected: 03/06/19 14:45
Date Received: 03/09/19 09:50

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			03/14/19 20:05	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			03/14/19 20:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			03/14/19 20:05	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			03/14/19 20:05	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			03/14/19 20:05	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			03/14/19 20:05	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			03/14/19 20:05	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.91	ug/L			03/14/19 20:05	1
Ethylene Dibromide	1.0	U	1.0	0.12	ug/L			03/14/19 20:05	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			03/14/19 20:05	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/14/19 20:05	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			03/14/19 20:05	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			03/14/19 20:05	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			03/14/19 20:05	1
2-Butanone (MEK)	**1.6**	**J**	10	1.2	ug/L			03/14/19 20:05	1
2-Hexanone	10	U	10	0.54	ug/L			03/14/19 20:05	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			03/14/19 20:05	1
Acetone	**5.6**	**J**	10	5.4	ug/L			03/14/19 20:05	1
Benzene	1.0	U	1.0	0.13	ug/L			03/14/19 20:05	1
Dichlorobromomethane	1.0	U	1.0	0.17	ug/L			03/14/19 20:05	1
Bromoform	1.0	U	1.0	0.76	ug/L			03/14/19 20:05	1
Bromomethane	1.0	U	1.0	0.42	ug/L			03/14/19 20:05	1
Carbon disulfide	1.0	U	1.0	0.28	ug/L			03/14/19 20:05	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			03/14/19 20:05	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/14/19 20:05	1
Chloroethane	1.0	U	1.0	0.83	ug/L			03/14/19 20:05	1
Chloroform	1.0	U	1.0	0.13	ug/L			03/14/19 20:05	1
Chloromethane	1.0	U	1.0	0.20	ug/L			03/14/19 20:05	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			03/14/19 20:05	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			03/14/19 20:05	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			03/14/19 20:05	1
Chlorodibromomethane	1.0	U	1.0	0.39	ug/L			03/14/19 20:05	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			03/14/19 20:05	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			03/14/19 20:05	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			03/14/19 20:05	1
Methyl acetate	10	U	10	1.7	ug/L			03/14/19 20:05	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			03/14/19 20:05	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			03/14/19 20:05	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			03/14/19 20:05	1
Styrene	1.0	U	1.0	0.10	ug/L			03/14/19 20:05	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			03/14/19 20:05	1
Toluene	**0.24**	**J**	1.0	0.14	ug/L			03/14/19 20:05	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			03/14/19 20:05	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			03/14/19 20:05	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			03/14/19 20:05	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			03/14/19 20:05	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			03/14/19 20:05	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			03/14/19 20:05	1
Naphthalene	1.0	U	1.0	0.32	ug/L			03/14/19 20:05	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: RINSE BLANK 2

Lab Sample ID: 240-109180-13

Date Collected: 03/06/19 14:45
Date Received: 03/09/19 09:50

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*93*		*70 - 123*		*03/14/19 20:05*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 128*		*03/14/19 20:05*	*1*
4-Bromofluorobenzene (Surr)	*95*		*59 - 120*		*03/14/19 20:05*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 121*		*03/14/19 20:05*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.95	U	0.95	0.47	ug/L		03/11/19 11:50	03/18/19 12:24	1
bis (2-chloroisopropyl) ether	0.95	U	0.95	0.52	ug/L		03/11/19 11:50	03/18/19 12:24	1
2,4,5-Trichlorophenol	4.8	U	4.8	1.9	ug/L		03/11/19 11:50	03/18/19 12:24	1
2,4,6-Trichlorophenol	4.8	U	4.8	1.7	ug/L		03/11/19 11:50	03/18/19 12:24	1
2,4-Dichlorophenol	1.9	U	1.9	0.25	ug/L		03/11/19 11:50	03/18/19 12:24	1
2,4-Dimethylphenol	1.9	U	1.9	0.49	ug/L		03/11/19 11:50	03/18/19 12:24	1
2,4-Dinitrophenol	9.5	U	9.5	5.9	ug/L		03/11/19 11:50	03/18/19 12:24	1
2,4-Dinitrotoluene	4.8	U	4.8	2.0	ug/L		03/11/19 11:50	03/18/19 12:24	1
2,6-Dinitrotoluene	4.8	U	4.8	2.0	ug/L		03/11/19 11:50	03/18/19 12:24	1
2-Chloronaphthalene	0.95	U	0.95	0.46	ug/L		03/11/19 11:50	03/18/19 12:24	1
2-Chlorophenol	0.95	U	0.95	0.26	ug/L		03/11/19 11:50	03/18/19 12:24	1
2-Methylnaphthalene	0.19	U	0.19	0.11	ug/L		03/11/19 11:50	03/18/19 12:24	1
2-Methylphenol	0.95	U	0.95	0.20	ug/L		03/11/19 11:50	03/18/19 12:24	1
2-Nitroaniline	1.9	U	1.9	0.49	ug/L		03/11/19 11:50	03/18/19 12:24	1
2-Nitrophenol	1.9	U	1.9	0.54	ug/L		03/11/19 11:50	03/18/19 12:24	1
3,3'-Dichlorobenzidine	4.8	U	4.8	1.1	ug/L		03/11/19 11:50	03/18/19 12:24	1
3-Nitroaniline	1.9	U	1.9	0.54	ug/L		03/11/19 11:50	03/18/19 12:24	1
4,6-Dinitro-2-methylphenol	4.8	U	4.8	2.7	ug/L		03/11/19 11:50	03/18/19 12:24	1
4-Bromophenyl phenyl ether	1.9	U	1.9	0.48	ug/L		03/11/19 11:50	03/18/19 12:24	1
4-Chloro-3-methylphenol	1.9	U	1.9	0.28	ug/L		03/11/19 11:50	03/18/19 12:24	1
4-Chloroaniline	1.9	U	1.9	0.30	ug/L		03/11/19 11:50	03/18/19 12:24	1
4-Chlorophenyl phenyl ether	1.9	U	1.9	0.52	ug/L		03/11/19 11:50	03/18/19 12:24	1
4-Nitroaniline	1.9	U	1.9	0.87	ug/L		03/11/19 11:50	03/18/19 12:24	1
4-Nitrophenol	9.5	U	9.5	2.1	ug/L		03/11/19 11:50	03/18/19 12:24	1
Acenaphthene	0.19	U	0.19	0.16	ug/L		03/11/19 11:50	03/18/19 12:24	1
Acenaphthylene	0.19	U	0.19	0.12	ug/L		03/11/19 11:50	03/18/19 12:24	1
Acetophenone	0.95	U	0.95	0.35	ug/L		03/11/19 11:50	03/18/19 12:24	1
Anthracene	0.19	U	0.19	0.13	ug/L		03/11/19 11:50	03/18/19 12:24	1
Atrazine	1.9	U	1.9	0.91	ug/L		03/11/19 11:50	03/18/19 12:24	1
Benzaldehyde	1.9	U	1.9	0.72	ug/L		03/11/19 11:50	03/18/19 12:24	1
Benzo[a]anthracene	0.19	U	0.19	0.16	ug/L		03/11/19 11:50	03/18/19 12:24	1
Benzo[a]pyrene	0.19	U	0.19	0.16	ug/L		03/11/19 11:50	03/18/19 12:24	1
Benzo[b]fluoranthene	0.19	U	0.19	0.15	ug/L		03/11/19 11:50	03/18/19 12:24	1
Benzo[g,h,i]perylene	0.19	U	0.19	0.17	ug/L		03/11/19 11:50	03/18/19 12:24	1
Benzo[k]fluoranthene	0.19	U	0.19	0.13	ug/L		03/11/19 11:50	03/18/19 12:24	1
Bis(2-chloroethoxy)methane	0.95	U	0.95	0.43	ug/L		03/11/19 11:50	03/18/19 12:24	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.38	ug/L		03/11/19 11:50	03/18/19 12:24	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8	2.1	ug/L		03/11/19 11:50	03/18/19 12:24	1
Butyl benzyl phthalate	1.9	U	1.9	0.63	ug/L		03/11/19 11:50	03/18/19 12:24	1
Caprolactam	4.8	U	4.8	0.89	ug/L		03/11/19 11:50	03/18/19 12:24	1
Carbazole	0.95	U	0.95	0.47	ug/L		03/11/19 11:50	03/18/19 12:24	1
Chrysene	0.19	U	0.19	0.18	ug/L		03/11/19 11:50	03/18/19 12:24	1
Dibenz(a,h)anthracene	0.19	U	0.19	0.14	ug/L		03/11/19 11:50	03/18/19 12:24	1

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: RINSE BLANK 2

Lab Sample ID: 240-109180-13

Date Collected: 03/06/19 14:45
Date Received: 03/09/19 09:50

Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	0.95	U	0.95	0.53	ug/L		03/11/19 11:50	03/18/19 12:24	1
Diethyl phthalate	4.8	U	4.8	3.6	ug/L		03/11/19 11:50	03/18/19 12:24	1
Dimethyl phthalate	1.9	U	1.9	0.49	ug/L		03/11/19 11:50	03/18/19 12:24	1
Di-n-butyl phthalate	4.8	U	4.8	1.7	ug/L		03/11/19 11:50	03/18/19 12:24	1
Di-n-octyl phthalate	1.9	U	1.9	0.78	ug/L		03/11/19 11:50	03/18/19 12:24	1
Fluoranthene	0.19	U	0.19	0.15	ug/L		03/11/19 11:50	03/18/19 12:24	1
Fluorene	0.19	U	0.19	0.16	ug/L		03/11/19 11:50	03/18/19 12:24	1
Hexachlorobenzene	0.19	U	0.19	0.15	ug/L		03/11/19 11:50	03/18/19 12:24	1
Hexachlorobutadiene	0.95	U	0.95	0.52	ug/L		03/11/19 11:50	03/18/19 12:24	1
Hexachlorocyclopentadiene	9.5	U	9.5	1.7	ug/L		03/11/19 11:50	03/18/19 12:24	1
Hexachloroethane	0.95	U	0.95	0.38	ug/L		03/11/19 11:50	03/18/19 12:24	1
Indeno[1,2,3-cd]pyrene	0.19	U	0.19	0.13	ug/L		03/11/19 11:50	03/18/19 12:24	1
Isophorone	0.95	U	0.95	0.31	ug/L		03/11/19 11:50	03/18/19 12:24	1
Naphthalene	0.19	U	0.19	0.10	ug/L		03/11/19 11:50	03/18/19 12:24	1
Nitrobenzene	0.95	U	0.95	0.49	ug/L		03/11/19 11:50	03/18/19 12:24	1
N-Nitrosodi-n-propylamine	0.95	U	0.95	0.24	ug/L		03/11/19 11:50	03/18/19 12:24	1
N-Nitrosodiphenylamine	0.95	U	0.95	0.42	ug/L		03/11/19 11:50	03/18/19 12:24	1
Pentachlorophenol	9.5	U	9.5	3.0	ug/L		03/11/19 11:50	03/18/19 12:24	1
Phenol	0.95	U	0.95	0.12	ug/L		03/11/19 11:50	03/18/19 12:24	1
Phenanthrene	0.19	U	0.19	0.16	ug/L		03/11/19 11:50	03/18/19 12:24	1
Pyrene	0.19	U	0.19	0.17	ug/L		03/11/19 11:50	03/18/19 12:24	1
3 & 4 Methylphenol	1.9	U	1.9	0.18	ug/L		03/11/19 11:50	03/18/19 12:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*81*		*38 - 120*	*03/11/19 11:50*	*03/18/19 12:24*	*1*
2-Fluorophenol (Surr)	*45*		*10 - 120*	*03/11/19 11:50*	*03/18/19 12:24*	*1*
2,4,6-Tribromophenol (Surr)	*52*		*28 - 120*	*03/11/19 11:50*	*03/18/19 12:24*	*1*
Nitrobenzene-d5 (Surr)	*87*		*32 - 120*	*03/11/19 11:50*	*03/18/19 12:24*	*1*
Phenol-d5 (Surr)	*27*		*10 - 120*	*03/11/19 11:50*	*03/18/19 12:24*	*1*
Terphenyl-d14 (Surr)	*89*		*23 - 127*	*03/11/19 11:50*	*03/18/19 12:24*	*1*

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	10	U	10	7.5	ug/L		03/11/19 14:00	03/12/19 18:22	1
Arsenic	10	U	10	4.1	ug/L		03/11/19 14:00	03/12/19 18:22	1
Barium	200	U	200	1.3	ug/L		03/11/19 14:00	03/12/19 18:22	1
Beryllium	5.0	U	5.0	0.60	ug/L		03/11/19 14:00	03/12/19 18:22	1
Cadmium	2.0	U	2.0	0.20	ug/L		03/11/19 14:00	03/12/19 18:22	1
Cobalt	10	U	10	0.75	ug/L		03/11/19 14:00	03/12/19 18:22	1
Chromium	5.0	U	5.0	0.63	ug/L		03/11/19 14:00	03/12/19 18:22	1
Copper	25	U	25	3.5	ug/L		03/11/19 14:00	03/12/19 18:22	1
Magnesium	5000	U	5000	780	ug/L		03/11/19 14:00	03/12/19 18:22	1
Manganese	15	U	15	2.1	ug/L		03/11/19 14:00	03/12/19 18:22	1
Nickel	40	U	40	2.2	ug/L		03/11/19 14:00	03/12/19 18:22	1
Lead	5.0	U	5.0	2.8	ug/L		03/11/19 14:00	03/12/19 18:22	1
Selenium	15	U	15	6.0	ug/L		03/11/19 14:00	03/12/19 18:22	1
Tin	100	U	100	5.3	ug/L		03/11/19 14:00	03/12/19 18:22	1
Thallium	10	U	10	2.7	ug/L		03/11/19 14:00	03/12/19 18:22	1
Vanadium	50	U	50	5.6	ug/L		03/11/19 14:00	03/12/19 18:22	1
Zinc	50	U	50	9.7	ug/L		03/11/19 14:00	03/12/19 18:22	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: RINSE BLANK 2

Lab Sample ID: 240-109180-13

Date Collected: 03/06/19 14:45
Matrix: Water
Date Received: 03/09/19 09:50

Method: 6010B - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	5.0	U	5.0	0.62	ug/L		03/11/19 14:00	03/12/19 18:22	1
Sodium	5000	U	5000	560	ug/L		03/11/19 14:00	03/12/19 18:22	1
Iron	**32**	**J**	100	26	ug/L		03/11/19 14:00	03/12/19 18:22	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.13	ug/L		03/11/19 12:00	03/12/19 14:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		03/11/19 10:29	03/11/19 11:56	1
Sulfide	3.0	U	3.0	1.4	mg/L		03/12/19 12:18	03/12/19 13:24	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: 9584-030619-0002

Date Collected: 03/06/19 00:02
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-14

Matrix: Solid
Percent Solids: 91.5

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	270	U *	270	15	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
1,1,2,2-Tetrachloroethane	270	U	270	15	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	270	U	270	73	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
1,1,2-Trichloroethane	270	U	270	14	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
1,1-Dichloroethane	270	U	270	9.8	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
1,1-Dichloroethene	270	U	270	16	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
1,2,4-Trichlorobenzene	270	U	270	140	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
1,2-Dibromo-3-Chloropropane	540	U *	540	96	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Ethylene Dibromide	270	U *	270	86	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
1,2-Dichlorobenzene	270	U	270	23	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
1,2-Dichloroethane	270	U	270	13	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
1,2-Dichloropropane	270	U	270	8.7	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
1,3-Dichlorobenzene	270	U	270	23	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
1,4-Dichlorobenzene	270	U	270	18	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
2-Butanone (MEK)	1100	U	1100	170	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
2-Hexanone	1100	U	1100	290	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
4-Methyl-2-pentanone (MIBK)	1100	U	1100	260	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Acetone	1100	U	1100	270	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Benzene	270	U	270	8.7	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Dichlorobromomethane	270	U	270	30	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Bromoform	270	U *	270	120	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Bromomethane	270	U	270	180	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Carbon disulfide	270	U	270	120	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Carbon tetrachloride	270	U *	270	20	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Chlorobenzene	270	U	270	38	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Chloroethane	270	U	270	160	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Chloroform	270	U	270	9.8	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Chloromethane	270	U	270	72	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
cis-1,2-Dichloroethene	270	U	270	9.8	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
cis-1,3-Dichloropropene	270	U *	270	40	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Cyclohexane	540	U	540	180	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Chlorodibromomethane	270	U *	270	130	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Dichlorodifluoromethane	270	U	270	58	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Ethylbenzene	270	U	270	13	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Isopropylbenzene	270	U	270	41	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Methyl acetate	1400	U	1400	570	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Methyl tert-butyl ether	270	U	270	40	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Methylcyclohexane	540	U	540	72	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Methylene Chloride	540	U	540	420	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Styrene	270	U	270	13	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Tetrachloroethene	270	U	270	16	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Toluene	270	U	270	49	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
trans-1,2-Dichloroethene	270	U	270	16	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
trans-1,3-Dichloropropene	270	U *	270	110	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Trichloroethene	270	U	270	14	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Trichlorofluoromethane	270	U	270	50	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Vinyl chloride	270	U	270	11	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Xylenes, Total	540	U	540	25	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1
Naphthalene	270	U *	270	130	ug/Kg	☼	03/13/19 13:53	03/15/19 11:23	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: 9584-030619-0002

Date Collected: 03/06/19 00:02
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-14

Matrix: Solid
Percent Solids: 91.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*83*		*49 - 147*	*03/13/19 13:53*	*03/15/19 11:23*	*1*
Dibromofluoromethane (Surr)	*83*		*49 - 138*	*03/13/19 13:53*	*03/15/19 11:23*	*1*
4-Bromofluorobenzene (Surr)	*87*		*48 - 151*	*03/13/19 13:53*	*03/15/19 11:23*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*53 - 155*	*03/13/19 13:53*	*03/15/19 11:23*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	55	U	55	19	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
bis (2-chloroisopropyl) ether	110	U	110	11	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
2,4,5-Trichlorophenol	160	U	160	76	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
2,4,6-Trichlorophenol	160	U	160	70	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
2,4-Dichlorophenol	160	U	160	48	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
2,4-Dimethylphenol	160	U	160	44	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
2,4-Dinitrophenol	360	U	360	160	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
2,4-Dinitrotoluene	220	U	220	68	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
2,6-Dinitrotoluene	220	U	220	61	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
2-Chloronaphthalene	55	U	55	15	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
2-Chlorophenol	55	U	55	11	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
2-Methylnaphthalene	**31**		16	2.1	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
2-Methylphenol	220	U	220	34	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
2-Nitroaniline	220	U	220	44	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
2-Nitrophenol	55	U	55	14	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
3,3'-Dichlorobenzidine	110	U	110	47	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
3-Nitroaniline	220	U	220	54	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
4,6-Dinitro-2-methylphenol	360	U	360	88	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
4-Bromophenyl phenyl ether	55	U	55	15	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
4-Chloro-3-methylphenol	160	U	160	49	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
4-Chloroaniline	160	U	160	33	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
4-Chlorophenyl phenyl ether	55	U	55	15	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
4-Nitroaniline	220	U	220	66	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
4-Nitrophenol	360	U	360	100	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Acenaphthene	16	U	16	3.1	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Acenaphthylene	16	U	16	4.4	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Acetophenone	110	U	110	12	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Anthracene	**8.5**	**J**	16	2.6	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Atrazine	220	U	220	39	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Benzaldehyde	110	U	110	25	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Benzo[a]anthracene	**50**		16	3.7	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Benzo[a]pyrene	**58**		16	10	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Benzo[b]fluoranthene	**100**		16	7.1	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Benzo[g,h,i]perylene	**67**		16	7.8	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Benzo[k]fluoranthene	**26**		16	7.6	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Bis(2-chloroethoxy)methane	110	U	110	13	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Bis(2-chloroethyl)ether	110	U	110	13	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Bis(2-ethylhexyl) phthalate	77	U	77	56	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Butyl benzyl phthalate	77	U	77	24	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Caprolactam	360	U	360	82	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Carbazole	55	U	55	21	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Chrysene	**61**		16	1.6	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Dibenz(a,h)anthracene	**23**		16	7.6	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1

Client Sample ID: 9584-030619-0002

Date Collected: 03/06/19 00:02
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-14

Matrix: Solid
Percent Solids: 91.5

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	55	U	55	14	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Diethyl phthalate	77	U	77	34	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Dimethyl phthalate	77	U	77	15	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Di-n-butyl phthalate	77	U	77	24	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Di-n-octyl phthalate	77	U	77	31	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Fluoranthene	**77**		16	4.9	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Fluorene	**4.9**	**J**	16	3.0	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Hexachlorobenzene	16	U	16	3.1	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Hexachlorobutadiene	55	U	55	13	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Hexachlorocyclopentadiene	360	U	360	68	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Hexachloroethane	55	U	55	9.9	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Indeno[1,2,3-cd]pyrene	**51**		16	8.1	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Isophorone	55	U	55	13	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Naphthalene	**23**		16	2.6	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Nitrobenzene	110	U	110	14	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
N-Nitrosodi-n-propylamine	55	U	55	12	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
N-Nitrosodiphenylamine	55	U	55	13	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Pentachlorophenol	160	U	160	64	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Phenol	55	U	55	8.8	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Phenanthrene	**65**		16	2.4	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
Pyrene	**73**		16	2.3	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1
3 & 4 Methylphenol	440	U	440	32	ug/Kg	☼	03/12/19 07:38	03/18/19 15:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*77*		*32 - 120*	*03/12/19 07:38*	*03/18/19 15:36*	*1*
2-Fluorophenol (Surr)	*82*		*29 - 120*	*03/12/19 07:38*	*03/18/19 15:36*	*1*
2,4,6-Tribromophenol (Surr)	*69*		*10 - 120*	*03/12/19 07:38*	*03/18/19 15:36*	*1*
Nitrobenzene-d5 (Surr)	*76*		*30 - 120*	*03/12/19 07:38*	*03/18/19 15:36*	*1*
Phenol-d5 (Surr)	*80*		*29 - 120*	*03/12/19 07:38*	*03/18/19 15:36*	*1*
Terphenyl-d14 (Surr)	*97*		*41 - 120*	*03/12/19 07:38*	*03/18/19 15:36*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.5**		0.99	0.31	mg/Kg	☼	03/11/19 14:00	03/12/19 18:03	1
Lead	**17**		0.99	0.28	mg/Kg	☼	03/11/19 14:00	03/12/19 18:03	1
Selenium	1.5	U	1.5	0.47	mg/Kg	☼	03/11/19 14:00	03/12/19 18:03	1
Thallium	0.99	U	0.99	0.40	mg/Kg	☼	03/11/19 14:00	03/12/19 18:03	1
Antimony	**0.46**	**J**	0.99	0.36	mg/Kg	☼	03/11/19 14:00	03/12/19 18:03	1
Barium	**11**	**J**	20	0.36	mg/Kg	☼	03/11/19 14:00	03/12/19 18:03	1
Beryllium	**0.081**	**J ^**	0.50	0.054	mg/Kg	☼	03/11/19 14:00	03/12/19 18:03	1
Cadmium	**0.27**		0.20	0.048	mg/Kg	☼	03/11/19 14:00	03/12/19 18:03	1
Chromium	**8.0**		0.50	0.15	mg/Kg	☼	03/11/19 14:00	03/12/19 18:03	1
Cobalt	**1.5**		0.99	0.20	mg/Kg	☼	03/11/19 14:00	03/12/19 18:03	1
Copper	**6.6**		2.5	0.23	mg/Kg	☼	03/11/19 14:00	03/12/19 18:03	1
Nickel	**3.9**	**J**	4.0	0.23	mg/Kg	☼	03/11/19 14:00	03/12/19 18:03	1
Silver	**0.23**	**J B**	0.50	0.080	mg/Kg	☼	03/11/19 14:00	03/12/19 18:03	1
Magnesium	**9200**		500	46	mg/Kg	☼	03/11/19 14:00	03/12/19 18:03	1
Tin	**3.7**	**J**	9.9	3.6	mg/Kg	☼	03/11/19 14:00	03/12/19 18:03	1
Manganese	**300**	**B**	1.5	0.31	mg/Kg	☼	03/11/19 14:00	03/12/19 18:03	1
Vanadium	**8.7**		5.0	0.82	mg/Kg	☼	03/11/19 14:00	03/12/19 18:03	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: 9584-030619-0002

Date Collected: 03/06/19 00:02
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-14

Matrix: Solid
Percent Solids: 91.5

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	42		5.0	1.4	mg/Kg	☼	03/11/19 14:00	03/12/19 18:03	1
Sodium	99	J	500	62	mg/Kg	☼	03/11/19 14:00	03/12/19 18:03	1
Iron	7200		9.9	6.9	mg/Kg	☼	03/11/19 14:00	03/12/19 18:03	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13	U	0.13	0.023	mg/Kg	☼	03/11/19 16:00	03/13/19 11:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.55	U	0.55	0.21	mg/Kg	☼	03/12/19 13:31	03/12/19 14:28	1
Sulfide	19	J	33	16	mg/Kg	☼	03/11/19 09:23	03/11/19 11:35	1
Percent Solids	91.5		0.1	0.1	%			03/11/19 16:58	1
Percent Moisture	8.5		0.1	0.1	%			03/11/19 16:58	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB06-0-2

Date Collected: 03/06/19 09:15
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-15

Matrix: Solid
Percent Solids: 91.7

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	260	U *	260	14	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
1,1,2,2-Tetrachloroethane	260	U	260	14	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	260	U	260	69	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
1,1,2-Trichloroethane	260	U	260	13	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
1,1-Dichloroethane	260	U	260	9.3	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
1,1-Dichloroethene	260	U	260	15	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
1,2,4-Trichlorobenzene	260	U	260	140	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
1,2-Dibromo-3-Chloropropane	520	U *	520	91	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Ethylene Dibromide	260	U *	260	81	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
1,2-Dichlorobenzene	260	U	260	22	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
1,2-Dichloroethane	260	U	260	12	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
1,2-Dichloropropane	260	U	260	8.2	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
1,3-Dichlorobenzene	260	U	260	22	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
1,4-Dichlorobenzene	260	U	260	18	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
2-Butanone (MEK)	1000	U	1000	160	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
2-Hexanone	1000	U	1000	270	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
4-Methyl-2-pentanone (MIBK)	1000	U	1000	250	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Acetone	1000	U	1000	250	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Benzene	260	U	260	8.2	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Dichlorobromomethane	260	U	260	29	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Bromoform	260	U *	260	110	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Bromomethane	260	U	260	170	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Carbon disulfide	260	U	260	110	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Carbon tetrachloride	260	U *	260	19	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Chlorobenzene	260	U	260	36	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Chloroethane	260	U	260	150	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Chloroform	260	U	260	9.3	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Chloromethane	260	U	260	68	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
cis-1,2-Dichloroethene	260	U	260	9.3	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
cis-1,3-Dichloropropene	260	U *	260	38	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Cyclohexane	520	U	520	170	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Chlorodibromomethane	260	U *	260	120	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Dichlorodifluoromethane	260	U	260	55	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Ethylbenzene	260	U	260	12	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Isopropylbenzene	260	U	260	39	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Methyl acetate	**2100**		1300	540	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Methyl tert-butyl ether	260	U	260	38	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Methylcyclohexane	520	U	520	68	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Methylene Chloride	520	U	520	390	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Styrene	260	U	260	12	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Tetrachloroethene	260	U	260	15	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Toluene	260	U	260	46	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
trans-1,2-Dichloroethene	260	U	260	15	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
trans-1,3-Dichloropropene	260	U *	260	110	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Trichloroethene	260	U	260	13	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Trichlorofluoromethane	260	U	260	47	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Vinyl chloride	260	U	260	10	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Xylenes, Total	520	U	520	24	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1
Naphthalene	260	U *	260	120	ug/Kg	☼	03/13/19 13:53	03/15/19 11:45	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB06-0-2

Date Collected: 03/06/19 09:15
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-15

Matrix: Solid
Percent Solids: 91.7

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*89*		*49 - 147*	*03/13/19 13:53*	*03/15/19 11:45*	*1*
Dibromofluoromethane (Surr)	*81*		*49 - 138*	*03/13/19 13:53*	*03/15/19 11:45*	*1*
4-Bromofluorobenzene (Surr)	*88*		*48 - 151*	*03/13/19 13:53*	*03/15/19 11:45*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*53 - 155*	*03/13/19 13:53*	*03/15/19 11:45*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	220	U	220	74	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
bis (2-chloroisopropyl) ether	430	U	430	43	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
2,4,5-Trichlorophenol	650	U	650	300	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
2,4,6-Trichlorophenol	650	U	650	280	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
2,4-Dichlorophenol	650	U	650	190	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
2,4-Dimethylphenol	650	U	650	170	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
2,4-Dinitrophenol	1400	U	1400	620	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
2,4-Dinitrotoluene	870	U	870	270	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
2,6-Dinitrotoluene	870	U	870	240	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
2-Chloronaphthalene	220	U	220	61	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
2-Chlorophenol	220	U	220	43	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
2-Methylnaphthalene	**64**	**J**	65	8.5	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
2-Methylphenol	870	U	870	130	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
2-Nitroaniline	870	U	870	170	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
2-Nitrophenol	220	U	220	57	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
3,3'-Dichlorobenzidine	430	U	430	190	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
3-Nitroaniline	870	U	870	210	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
4,6-Dinitro-2-methylphenol	1400	U	1400	350	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
4-Bromophenyl phenyl ether	220	U	220	61	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
4-Chloro-3-methylphenol	650	U	650	200	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
4-Chloroaniline	650	U	650	130	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
4-Chlorophenyl phenyl ether	220	U	220	61	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
4-Nitroaniline	870	U	870	260	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
4-Nitrophenol	1400	U	1400	410	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Acenaphthene	**95**		65	12	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Acenaphthylene	**97**		65	17	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Acetophenone	430	U	430	48	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Anthracene	**360**		65	10	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Atrazine	870	U	870	160	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Benzaldehyde	430	U	430	100	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Benzo[a]anthracene	**1100**		65	15	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Benzo[a]pyrene	**700**		65	41	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Benzo[b]fluoranthene	**1500**		65	28	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Benzo[g,h,i]perylene	**600**		65	31	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Benzo[k]fluoranthene	**390**		65	30	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Bis(2-chloroethoxy)methane	430	U	430	52	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Bis(2-chloroethyl)ether	430	U	430	52	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Bis(2-ethylhexyl) phthalate	**330**		300	220	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Butyl benzyl phthalate	300	U	300	96	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Caprolactam	1400	U	1400	330	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Carbazole	220	U	220	83	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Chrysene	**1400**		65	6.5	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Dibenz(a,h)anthracene	**180**		65	30	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB06-0-2

Date Collected: 03/06/19 09:15
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-15

Matrix: Solid
Percent Solids: 91.7

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	**65**	**J**	220	57	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Diethyl phthalate	300	U	300	130	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Dimethyl phthalate	300	U	300	61	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Di-n-butyl phthalate	300	U	300	96	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Di-n-octyl phthalate	300	U	300	120	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Fluoranthene	**4300**		65	19	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Fluorene	**76**		65	12	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Hexachlorobenzene	65	U	65	12	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Hexachlorobutadiene	220	U	220	52	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Hexachlorocyclopentadiene	1400	U	1400	270	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Hexachloroethane	220	U	220	39	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Indeno[1,2,3-cd]pyrene	**510**		65	32	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Isophorone	220	U	220	52	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Naphthalene	**82**		65	10	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Nitrobenzene	430	U	430	57	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
N-Nitrosodi-n-propylamine	220	U	220	48	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
N-Nitrosodiphenylamine	220	U	220	52	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Pentachlorophenol	650	U	650	250	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Phenol	220	U	220	35	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Phenanthrene	**940**		65	9.7	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
Pyrene	**3400**		65	9.3	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4
3 & 4 Methylphenol	1700	U	1700	130	ug/Kg	☼	03/12/19 07:38	03/18/19 18:47	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*90*		*32 - 120*	*03/12/19 07:38*	*03/18/19 18:47*	*4*
2-Fluorophenol (Surr)	*85*		*29 - 120*	*03/12/19 07:38*	*03/18/19 18:47*	*4*
2,4,6-Tribromophenol (Surr)	*56*		*10 - 120*	*03/12/19 07:38*	*03/18/19 18:47*	*4*
Nitrobenzene-d5 (Surr)	*80*		*30 - 120*	*03/12/19 07:38*	*03/18/19 18:47*	*4*
Phenol-d5 (Surr)	*79*		*29 - 120*	*03/12/19 07:38*	*03/18/19 18:47*	*4*
Terphenyl-d14 (Surr)	*96*		*41 - 120*	*03/12/19 07:38*	*03/18/19 18:47*	*4*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	22	U	22	6.8	mg/Kg	☼	03/11/19 14:00	03/13/19 13:10	20
Lead	**40**		2.2	0.61	mg/Kg	☼	03/11/19 14:00	03/13/19 12:57	2
Selenium	32	U	32	10	mg/Kg	☼	03/11/19 14:00	03/13/19 13:10	20
Thallium	22	U	22	8.6	mg/Kg	☼	03/11/19 14:00	03/13/19 13:10	20
Antimony	**1.5**	**J**	2.2	0.77	mg/Kg	☼	03/11/19 14:00	03/13/19 12:57	2
Barium	**170**		22	0.39	mg/Kg	☼	03/11/19 14:00	03/12/19 17:41	1
Beryllium	**2.5**		1.1	0.12	mg/Kg	☼	03/11/19 14:00	03/13/19 12:57	2
Cadmium	**0.56**		0.43	0.10	mg/Kg	☼	03/11/19 14:00	03/13/19 12:57	2
Chromium	**920**		0.54	0.16	mg/Kg	☼	03/11/19 14:00	03/12/19 17:41	1
Cobalt	**1.2**		1.1	0.22	mg/Kg	☼	03/11/19 14:00	03/12/19 17:41	1
Copper	**31**		5.4	0.51	mg/Kg	☼	03/11/19 14:00	03/13/19 12:57	2
Nickel	**12**		8.6	0.50	mg/Kg	☼	03/11/19 14:00	03/13/19 12:57	2
Silver	**2.9**	**B**	0.54	0.087	mg/Kg	☼	03/11/19 14:00	03/12/19 17:41	1
Magnesium	**30000**		540	50	mg/Kg	☼	03/11/19 14:00	03/12/19 17:41	1
Tin	**15**		11	3.9	mg/Kg	☼	03/11/19 14:00	03/12/19 17:41	1
Manganese	**5100**	**B**	32	6.7	mg/Kg	☼	03/11/19 14:00	03/13/19 13:10	20
Vanadium	**240**		11	1.8	mg/Kg	☼	03/11/19 14:00	03/13/19 12:57	2

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB06-0-2

Date Collected: 03/06/19 09:15
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-15

Matrix: Solid
Percent Solids: 91.7

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	120		5.4	1.5	mg/Kg	☼	03/11/19 14:00	03/12/19 17:41	1
Sodium	430	J	540	68	mg/Kg	☼	03/11/19 14:00	03/12/19 17:41	1
Iron	88000		22	15	mg/Kg	☼	03/11/19 14:00	03/13/19 12:57	2

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.061	J	0.11	0.019	mg/Kg	☼	03/11/19 16:00	03/13/19 11:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.55	J	0.57	0.22	mg/Kg	☼	03/12/19 13:31	03/12/19 14:29	1
Sulfide	180		33	16	mg/Kg	☼	03/11/19 09:23	03/11/19 11:35	1
Percent Solids	91.7		0.1	0.1	%			03/11/19 16:58	1
Percent Moisture	8.3		0.1	0.1	%			03/11/19 16:58	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB06-2-4

Date Collected: 03/06/19 09:45
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-16

Matrix: Solid
Percent Solids: 84.0

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	330	U *	330	19	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
1,1,2,2-Tetrachloroethane	330	U	330	19	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	330	U	330	89	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
1,1,2-Trichloroethane	330	U	330	17	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
1,1-Dichloroethane	330	U	330	12	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
1,1-Dichloroethene	330	U	330	20	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
1,2,4-Trichlorobenzene	330	U	330	180	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
1,2-Dibromo-3-Chloropropane	660	U *	660	120	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Ethylene Dibromide	330	U *	330	100	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
1,2-Dichlorobenzene	330	U	330	28	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
1,2-Dichloroethane	330	U	330	16	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
1,2-Dichloropropane	330	U	330	11	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
1,3-Dichlorobenzene	330	U	330	28	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
1,4-Dichlorobenzene	330	U	330	23	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
2-Butanone (MEK)	1300	U	1300	210	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
2-Hexanone	1300	U	1300	350	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
4-Methyl-2-pentanone (MIBK)	1300	U	1300	320	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Acetone	1300	U	1300	320	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Benzene	330	U	330	11	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Dichlorobromomethane	330	U	330	37	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Bromoform	330	U *	330	140	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Bromomethane	330	U	330	220	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Carbon disulfide	330	U	330	140	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Carbon tetrachloride	330	U *	330	24	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Chlorobenzene	330	U	330	46	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Chloroethane	330	U	330	200	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Chloroform	330	U	330	12	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Chloromethane	330	U	330	87	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
cis-1,2-Dichloroethene	330	U	330	12	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
cis-1,3-Dichloropropene	330	U *	330	49	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Cyclohexane	660	U	660	220	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Chlorodibromomethane	330	U *	330	160	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Dichlorodifluoromethane	330	U	330	70	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Ethylbenzene	330	U	330	16	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Isopropylbenzene	330	U	330	50	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Methyl acetate	1700	U	1700	700	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Methyl tert-butyl ether	330	U	330	49	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Methylcyclohexane	660	U	660	87	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Methylene Chloride	660	U	660	510	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Styrene	330	U	330	16	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Tetrachloroethene	330	U	330	20	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Toluene	330	U	330	60	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
trans-1,2-Dichloroethene	330	U	330	20	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
trans-1,3-Dichloropropene	330	U *	330	140	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Trichloroethene	330	U	330	17	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Trichlorofluoromethane	330	U	330	61	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Vinyl chloride	330	U	330	13	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Xylenes, Total	660	U	660	30	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1
Naphthalene	330	U *	330	160	ug/Kg	☼	03/13/19 13:53	03/15/19 12:06	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB06-2-4

Date Collected: 03/06/19 09:45
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-16

Matrix: Solid
Percent Solids: 84.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*89*		*49 - 147*	*03/13/19 13:53*	*03/15/19 12:06*	*1*
Dibromofluoromethane (Surr)	*88*		*49 - 138*	*03/13/19 13:53*	*03/15/19 12:06*	*1*
4-Bromofluorobenzene (Surr)	*93*		*48 - 151*	*03/13/19 13:53*	*03/15/19 12:06*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*53 - 155*	*03/13/19 13:53*	*03/15/19 12:06*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	59	U	59	20	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
bis (2-chloroisopropyl) ether	120	U	120	12	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
2,4,5-Trichlorophenol	180	U	180	81	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
2,4,6-Trichlorophenol	180	U	180	76	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
2,4-Dichlorophenol	180	U	180	52	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
2,4-Dimethylphenol	180	U	180	47	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
2,4-Dinitrophenol	390	U	390	170	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
2,4-Dinitrotoluene	240	U	240	73	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
2,6-Dinitrotoluene	240	U	240	66	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
2-Chloronaphthalene	59	U	59	17	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
2-Chlorophenol	59	U	59	12	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
2-Methylnaphthalene	18	U	18	2.3	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
2-Methylphenol	240	U	240	37	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
2-Nitroaniline	240	U	240	47	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
2-Nitrophenol	59	U	59	15	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
3,3'-Dichlorobenzidine	120	U	120	51	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
3-Nitroaniline	240	U	240	58	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
4,6-Dinitro-2-methylphenol	390	U	390	94	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
4-Bromophenyl phenyl ether	59	U	59	17	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
4-Chloro-3-methylphenol	180	U	180	53	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
4-Chloroaniline	180	U	180	35	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
4-Chlorophenyl phenyl ether	59	U	59	17	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
4-Nitroaniline	240	U	240	71	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
4-Nitrophenol	390	U	390	110	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Acenaphthene	18	U	18	3.4	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Acenaphthylene	18	U	18	4.7	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Acetophenone	120	U	120	13	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Anthracene	18	U	18	2.8	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Atrazine	240	U	240	42	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Benzaldehyde	120	U	120	27	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Benzo[a]anthracene	**13**	**J**	18	4.0	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Benzo[a]pyrene	**15**	**J**	18	11	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Benzo[b]fluoranthene	**15**	**J**	18	7.7	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Benzo[g,h,i]perylene	**12**	**J**	18	8.4	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Benzo[k]fluoranthene	18	U	18	8.2	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Bis(2-chloroethoxy)methane	120	U	120	14	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Bis(2-chloroethyl)ether	120	U	120	14	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Bis(2-ethylhexyl) phthalate	83	U	83	60	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Butyl benzyl phthalate	83	U	83	26	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Caprolactam	390	U	390	88	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Carbazole	59	U	59	22	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Chrysene	**13**	**J**	18	1.8	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Dibenz(a,h)anthracene	18	U	18	8.2	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1

Client Sample ID: SB06-2-4

Date Collected: 03/06/19 09:45
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-16

Matrix: Solid
Percent Solids: 84.0

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	59	U	59	15	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Diethyl phthalate	83	U	83	37	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Dimethyl phthalate	83	U	83	17	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Di-n-butyl phthalate	83	U	83	26	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Di-n-octyl phthalate	83	U	83	33	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Fluoranthene	**23**		18	5.3	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Fluorene	18	U	18	3.2	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Hexachlorobenzene	18	U	18	3.4	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Hexachlorobutadiene	59	U	59	14	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Hexachlorocyclopentadiene	390	U	390	73	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Hexachloroethane	59	U	59	11	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Indeno[1,2,3-cd]pyrene	**13**	**J**	18	8.7	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Isophorone	59	U	59	14	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Naphthalene	18	U	18	2.8	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Nitrobenzene	120	U	120	15	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
N-Nitrosodi-n-propylamine	59	U	59	13	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
N-Nitrosodiphenylamine	59	U	59	14	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Pentachlorophenol	180	U	180	68	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Phenol	59	U	59	9.4	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Phenanthrene	**15**	**J**	18	2.6	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
Pyrene	**22**		18	2.5	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1
3 & 4 Methylphenol	470	U	470	34	ug/Kg	☼	03/12/19 07:38	03/14/19 17:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*85*		*32 - 120*	*03/12/19 07:38*	*03/14/19 17:36*	*1*
2-Fluorophenol (Surr)	*96*		*29 - 120*	*03/12/19 07:38*	*03/14/19 17:36*	*1*
2,4,6-Tribromophenol (Surr)	*77*		*10 - 120*	*03/12/19 07:38*	*03/14/19 17:36*	*1*
Nitrobenzene-d5 (Surr)	*85*		*30 - 120*	*03/12/19 07:38*	*03/14/19 17:36*	*1*
Phenol-d5 (Surr)	*97*		*29 - 120*	*03/12/19 07:38*	*03/14/19 17:36*	*1*
Terphenyl-d14 (Surr)	*97*		*41 - 120*	*03/12/19 07:38*	*03/14/19 17:36*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.4**		0.86	0.27	mg/Kg	☼	03/11/19 14:00	03/12/19 17:46	1
Lead	**2.5**		0.86	0.24	mg/Kg	☼	03/11/19 14:00	03/12/19 17:46	1
Selenium	1.3	U	1.3	0.40	mg/Kg	☼	03/11/19 14:00	03/12/19 17:46	1
Thallium	0.86	U	0.86	0.34	mg/Kg	☼	03/11/19 14:00	03/12/19 17:46	1
Antimony	0.86	U	0.86	0.31	mg/Kg	☼	03/11/19 14:00	03/12/19 17:46	1
Barium	**2.6**	**J**	17	0.31	mg/Kg	☼	03/11/19 14:00	03/12/19 17:46	1
Beryllium	**0.047**	**J ^**	0.43	0.046	mg/Kg	☼	03/11/19 14:00	03/12/19 17:46	1
Cadmium	**0.059**	**J**	0.17	0.041	mg/Kg	☼	03/11/19 14:00	03/12/19 17:46	1
Chromium	**4.1**		0.43	0.13	mg/Kg	☼	03/11/19 14:00	03/12/19 17:46	1
Cobalt	**1.4**		0.86	0.17	mg/Kg	☼	03/11/19 14:00	03/12/19 17:46	1
Copper	**1.3**	**J**	2.1	0.20	mg/Kg	☼	03/11/19 14:00	03/12/19 17:46	1
Nickel	**2.3**	**J**	3.4	0.20	mg/Kg	☼	03/11/19 14:00	03/12/19 17:46	1
Silver	**0.20**	**J B**	0.43	0.069	mg/Kg	☼	03/11/19 14:00	03/12/19 17:46	1
Magnesium	**16000**		430	39	mg/Kg	☼	03/11/19 14:00	03/12/19 17:46	1
Tin	8.6	U	8.6	3.1	mg/Kg	☼	03/11/19 14:00	03/12/19 17:46	1
Manganese	**140**	**B**	1.3	0.26	mg/Kg	☼	03/11/19 14:00	03/12/19 17:46	1
Vanadium	**8.6**		4.3	0.70	mg/Kg	☼	03/11/19 14:00	03/12/19 17:46	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB06-2-4

Date Collected: 03/06/19 09:45
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-16

Matrix: Solid
Percent Solids: 84.0

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	12		4.3	1.2	mg/Kg	☼	03/11/19 14:00	03/12/19 17:46	1
Sodium	92	J	430	54	mg/Kg	☼	03/11/19 14:00	03/12/19 17:46	1
Iron	3500		8.6	5.9	mg/Kg	☼	03/11/19 14:00	03/12/19 17:46	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13	U	0.13	0.023	mg/Kg	☼	03/11/19 16:00	03/13/19 11:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.60	U	0.60	0.23	mg/Kg	☼	03/12/19 13:31	03/12/19 14:31	1
Sulfide	36	U	36	18	mg/Kg	☼	03/11/19 09:23	03/11/19 11:35	1
Percent Solids	84.0		0.1	0.1	%			03/11/19 16:53	1
Percent Moisture	16.0		0.1	0.1	%			03/11/19 16:53	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB07-0-2

Date Collected: 03/06/19 11:25
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-17

Matrix: Solid
Percent Solids: 93.2

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	300	U *	300	17	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
1,1,2,2-Tetrachloroethane	300	U	300	17	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	300	U	300	80	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
1,1,2-Trichloroethane	300	U	300	16	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
1,1-Dichloroethane	300	U	300	11	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
1,1-Dichloroethene	300	U	300	18	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
1,2,4-Trichlorobenzene	300	U	300	160	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
1,2-Dibromo-3-Chloropropane	600	U *	600	110	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Ethylene Dibromide	300	U *	300	95	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
1,2-Dichlorobenzene	300	U	300	25	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
1,2-Dichloroethane	300	U	300	14	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
1,2-Dichloropropane	300	U	300	9.6	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
1,3-Dichlorobenzene	300	U	300	25	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
1,4-Dichlorobenzene	300	U	300	20	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
2-Butanone (MEK)	1200	U	1200	190	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
2-Hexanone	1200	U	1200	320	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
4-Methyl-2-pentanone (MIBK)	1200	U	1200	290	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Acetone	1200	U	1200	290	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Benzene	300	U	300	9.6	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Dichlorobromomethane	300	U	300	34	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Bromoform	300	U *	300	130	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Bromomethane	300	U	300	200	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Carbon disulfide	300	U	300	130	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Carbon tetrachloride	300	U *	300	22	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Chlorobenzene	300	U	300	42	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Chloroethane	300	U	300	180	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Chloroform	300	U	300	11	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Chloromethane	300	U	300	79	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
cis-1,2-Dichloroethene	300	U	300	11	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
cis-1,3-Dichloropropene	300	U *	300	44	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Cyclohexane	600	U	600	200	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Chlorodibromomethane	300	U *	300	140	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Dichlorodifluoromethane	300	U	300	64	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Ethylbenzene	300	U	300	14	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Isopropylbenzene	300	U	300	46	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Methyl acetate	1500	U	1500	630	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Methyl tert-butyl ether	300	U	300	44	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Methylcyclohexane	600	U	600	79	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Methylene Chloride	600	U	600	460	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Styrene	300	U	300	14	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Tetrachloroethene	300	U	300	18	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Toluene	300	U	300	54	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
trans-1,2-Dichloroethene	300	U	300	18	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
trans-1,3-Dichloropropene	300	U *	300	130	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Trichloroethene	300	U	300	16	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Trichlorofluoromethane	300	U	300	55	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Vinyl chloride	300	U	300	12	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Xylenes, Total	600	U	600	28	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1
Naphthalene	300	U *	300	140	ug/Kg	☼	03/13/19 13:53	03/15/19 12:28	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB07-0-2

Date Collected: 03/06/19 11:25
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-17

Matrix: Solid
Percent Solids: 93.2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	89		49 - 147	03/13/19 13:53	03/15/19 12:28	1
Dibromofluoromethane (Surr)	86		49 - 138	03/13/19 13:53	03/15/19 12:28	1
4-Bromofluorobenzene (Surr)	91		48 - 151	03/13/19 13:53	03/15/19 12:28	1
1,2-Dichloroethane-d4 (Surr)	104		53 - 155	03/13/19 13:53	03/15/19 12:28	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	110	U	110	36	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
bis (2-chloroisopropyl) ether	210	U	210	21	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
2,4,5-Trichlorophenol	320	U	320	150	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
2,4,6-Trichlorophenol	320	U	320	140	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
2,4-Dichlorophenol	320	U	320	94	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
2,4-Dimethylphenol	320	U	320	86	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
2,4-Dinitrophenol	710	U	710	300	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
2,4-Dinitrotoluene	430	U	430	130	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
2,6-Dinitrotoluene	430	U	430	120	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
2-Chloronaphthalene	110	U	110	30	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
2-Chlorophenol	110	U	110	21	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
2-Methylnaphthalene	**44**		32	4.2	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
2-Methylphenol	430	U	430	66	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
2-Nitroaniline	430	U	430	86	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
2-Nitrophenol	110	U	110	28	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
3,3'-Dichlorobenzidine	210	U	210	92	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
3-Nitroaniline	430	U	430	100	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
4,6-Dinitro-2-methylphenol	710	U	710	170	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
4-Bromophenyl phenyl ether	110	U	110	30	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
4-Chloro-3-methylphenol	320	U	320	96	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
4-Chloroaniline	320	U	320	64	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
4-Chlorophenyl phenyl ether	110	U	110	30	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
4-Nitroaniline	430	U	430	130	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
4-Nitrophenol	710	U	710	200	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Acenaphthene	**50**		32	6.1	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Acenaphthylene	**220**		32	8.6	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Acetophenone	210	U	210	24	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Anthracene	**270**		32	5.2	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Atrazine	430	U	430	77	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Benzaldehyde	210	U	210	49	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Benzo[a]anthracene	**830**		32	7.3	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Benzo[a]pyrene	**1400**		32	20	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Benzo[b]fluoranthene	**1900**		32	14	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Benzo[g,h,i]perylene	**1400**		32	15	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Benzo[k]fluoranthene	**680**		32	15	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Bis(2-chloroethoxy)methane	210	U	210	26	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Bis(2-chloroethyl)ether	210	U	210	26	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Bis(2-ethylhexyl) phthalate	**170**		150	110	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Butyl benzyl phthalate	150	U	150	47	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Caprolactam	710	U	710	160	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Carbazole	**110**		110	41	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Chrysene	**1100**		32	3.2	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Dibenz(a,h)anthracene	**370**		32	15	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB07-0-2

Date Collected: 03/06/19 11:25
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-17

Matrix: Solid
Percent Solids: 93.2

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	**63**	**J**	110	28	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Diethyl phthalate	150	U	150	66	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Dimethyl phthalate	150	U	150	30	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Di-n-butyl phthalate	150	U	150	47	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Di-n-octyl phthalate	150	U	150	60	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Fluoranthene	**1100**		32	9.5	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Fluorene	**46**		32	5.9	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Hexachlorobenzene	32	U	32	6.1	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Hexachlorobutadiene	110	U	110	26	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Hexachlorocyclopentadiene	710	U	710	130	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Hexachloroethane	110	U	110	19	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Indeno[1,2,3-cd]pyrene	**1200**		32	16	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Isophorone	110	U	110	26	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Naphthalene	**77**		32	5.2	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Nitrobenzene	210	U	210	28	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
N-Nitrosodi-n-propylamine	110	U	110	24	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
N-Nitrosodiphenylamine	110	U	110	26	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Pentachlorophenol	320	U	320	120	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Phenol	110	U	110	17	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Phenanthrene	**520**		32	4.8	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
Pyrene	**1100**		32	4.6	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2
3 & 4 Methylphenol	860	U	860	62	ug/Kg	☼	03/16/19 10:19	03/19/19 17:02	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*77*		*32 - 120*	*03/16/19 10:19*	*03/19/19 17:02*	*2*
2-Fluorophenol (Surr)	*67*		*29 - 120*	*03/16/19 10:19*	*03/19/19 17:02*	*2*
2,4,6-Tribromophenol (Surr)	*82*		*10 - 120*	*03/16/19 10:19*	*03/19/19 17:02*	*2*
Nitrobenzene-d5 (Surr)	*55*		*30 - 120*	*03/16/19 10:19*	*03/19/19 17:02*	*2*
Phenol-d5 (Surr)	*70*		*29 - 120*	*03/16/19 10:19*	*03/19/19 17:02*	*2*
Terphenyl-d14 (Surr)	*95*		*41 - 120*	*03/16/19 10:19*	*03/19/19 17:02*	*2*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.6**		4.9	1.5	mg/Kg	☼	03/11/19 14:00	03/13/19 13:18	5
Lead	**110**		2.0	0.55	mg/Kg	☼	03/11/19 14:00	03/13/19 13:14	2
Selenium	**4.6**	**J**	7.3	2.3	mg/Kg	☼	03/11/19 14:00	03/13/19 13:18	5
Thallium	4.9	U	4.9	1.9	mg/Kg	☼	03/11/19 14:00	03/13/19 13:18	5
Antimony	2.0	U	2.0	0.70	mg/Kg	☼	03/11/19 14:00	03/13/19 13:14	2
Barium	**210**		20	0.35	mg/Kg	☼	03/11/19 14:00	03/12/19 17:50	1
Beryllium	**4.0**		0.98	0.11	mg/Kg	☼	03/11/19 14:00	03/13/19 13:14	2
Cadmium	**1.5**		0.39	0.094	mg/Kg	☼	03/11/19 14:00	03/13/19 13:14	2
Chromium	**120**		0.49	0.15	mg/Kg	☼	03/11/19 14:00	03/12/19 17:50	1
Cobalt	**3.7**		0.98	0.20	mg/Kg	☼	03/11/19 14:00	03/12/19 17:50	1
Copper	**100**		4.9	0.46	mg/Kg	☼	03/11/19 14:00	03/13/19 13:14	2
Nickel	**44**		7.8	0.45	mg/Kg	☼	03/11/19 14:00	03/13/19 13:14	2
Silver	**1.1**	**B**	0.49	0.079	mg/Kg	☼	03/11/19 14:00	03/12/19 17:50	1
Magnesium	**25000**		490	45	mg/Kg	☼	03/11/19 14:00	03/12/19 17:50	1
Tin	**11**		9.8	3.6	mg/Kg	☼	03/11/19 14:00	03/12/19 17:50	1
Manganese	**4200**	**B**	7.3	1.5	mg/Kg	☼	03/11/19 14:00	03/13/19 13:18	5
Vanadium	**48**		9.8	1.6	mg/Kg	☼	03/11/19 14:00	03/13/19 13:14	2

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB07-0-2

Date Collected: 03/06/19 11:25
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-17

Matrix: Solid
Percent Solids: 93.2

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	340		4.9	1.3	mg/Kg	☼	03/11/19 14:00	03/12/19 17:50	1
Sodium	550		490	61	mg/Kg	☼	03/11/19 14:00	03/12/19 17:50	1
Iron	67000		20	14	mg/Kg	☼	03/11/19 14:00	03/13/19 13:14	2

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13		0.099	0.018	mg/Kg	☼	03/11/19 16:00	03/13/19 11:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	1.2		0.54	0.20	mg/Kg	☼	03/12/19 13:31	03/12/19 14:33	1
Sulfide	230		32	16	mg/Kg	☼	03/12/19 08:22	03/12/19 13:24	1
Percent Solids	93.2		0.1	0.1	%			03/11/19 16:53	1
Percent Moisture	6.8		0.1	0.1	%			03/11/19 16:53	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB07-4-6

Date Collected: 03/06/19 11:55
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-18

Matrix: Solid
Percent Solids: 83.1

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	330	U *	330	18	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
1,1,2,2-Tetrachloroethane	330	U	330	18	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	330	U	330	88	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
1,1,2-Trichloroethane	330	U	330	17	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
1,1-Dichloroethane	330	U	330	12	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
1,1-Dichloroethene	330	U	330	20	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
1,2,4-Trichlorobenzene	330	U	330	180	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
1,2-Dibromo-3-Chloropropane	660	U *	660	120	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Ethylene Dibromide	330	U *	330	100	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
1,2-Dichlorobenzene	330	U	330	28	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
1,2-Dichloroethane	330	U	330	16	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
1,2-Dichloropropane	330	U	330	11	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
1,3-Dichlorobenzene	330	U	330	28	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
1,4-Dichlorobenzene	330	U	330	22	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
2-Butanone (MEK)	1300	U	1300	210	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
2-Hexanone	1300	U	1300	350	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
4-Methyl-2-pentanone (MIBK)	1300	U	1300	310	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Acetone	1300	U	1300	320	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Benzene	330	U	330	11	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Dichlorobromomethane	330	U	330	37	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Bromoform	330	U *	330	140	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Bromomethane	330	U	330	220	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Carbon disulfide	330	U	330	140	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Carbon tetrachloride	330	U *	330	24	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Chlorobenzene	330	U	330	46	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Chloroethane	330	U	330	200	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Chloroform	330	U	330	12	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Chloromethane	330	U	330	87	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
cis-1,2-Dichloroethene	330	U	330	12	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
cis-1,3-Dichloropropene	330	U *	330	49	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Cyclohexane	660	U	660	210	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Chlorodibromomethane	330	U *	330	150	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Dichlorodifluoromethane	330	U	330	70	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Ethylbenzene	330	U	330	16	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Isopropylbenzene	330	U	330	50	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Methyl acetate	1600	U	1600	690	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Methyl tert-butyl ether	330	U	330	49	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Methylcyclohexane	660	U	660	87	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Methylene Chloride	660	U	660	510	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Styrene	330	U	330	16	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Tetrachloroethene	330	U	330	20	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Toluene	330	U	330	59	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
trans-1,2-Dichloroethene	330	U	330	20	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
trans-1,3-Dichloropropene	330	U *	330	140	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Trichloroethene	330	U	330	17	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Trichlorofluoromethane	330	U	330	61	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Vinyl chloride	330	U	330	13	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Xylenes, Total	660	U	660	30	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1
Naphthalene	330	U *	330	160	ug/Kg	☼	03/13/19 13:53	03/15/19 12:49	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB07-4-6

Date Collected: 03/06/19 11:55
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-18

Matrix: Solid
Percent Solids: 83.1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	93		49 - 147	03/13/19 13:53	03/15/19 12:49	1
Dibromofluoromethane (Surr)	92		49 - 138	03/13/19 13:53	03/15/19 12:49	1
4-Bromofluorobenzene (Surr)	96		48 - 151	03/13/19 13:53	03/15/19 12:49	1
1,2-Dichloroethane-d4 (Surr)	113		53 - 155	03/13/19 13:53	03/15/19 12:49	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	59	U	59	20	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
bis (2-chloroisopropyl) ether	120	U	120	12	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
2,4,5-Trichlorophenol	180	U	180	82	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
2,4,6-Trichlorophenol	180	U	180	76	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
2,4-Dichlorophenol	180	U	180	52	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
2,4-Dimethylphenol	180	U	180	48	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
2,4-Dinitrophenol	390	U	390	170	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
2,4-Dinitrotoluene	240	U	240	74	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
2,6-Dinitrotoluene	240	U	240	67	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
2-Chloronaphthalene	59	U	59	17	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
2-Chlorophenol	59	U	59	12	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
2-Methylnaphthalene	18	U	18	2.3	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
2-Methylphenol	240	U	240	37	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
2-Nitroaniline	240	U	240	48	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
2-Nitrophenol	59	U	59	15	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
3,3'-Dichlorobenzidine	120	U	120	51	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
3-Nitroaniline	240	U	240	58	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
4,6-Dinitro-2-methylphenol	390	U	390	95	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
4-Bromophenyl phenyl ether	59	U	59	17	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
4-Chloro-3-methylphenol	180	U	180	54	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
4-Chloroaniline	180	U	180	36	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
4-Chlorophenyl phenyl ether	59	U	59	17	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
4-Nitroaniline	240	U	240	71	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
4-Nitrophenol	390	U	390	110	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Acenaphthene	18	U	18	3.4	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Acenaphthylene	18	U	18	4.8	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Acetophenone	120	U	120	13	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Anthracene	**4.6**	**J**	18	2.9	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Atrazine	240	U	240	43	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Benzaldehyde	120	U	120	27	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Benzo[a]anthracene	**16**	**J**	18	4.1	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Benzo[a]pyrene	**19**		18	11	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Benzo[b]fluoranthene	**29**		18	7.7	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Benzo[g,h,i]perylene	**17**	**J**	18	8.4	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Benzo[k]fluoranthene	**9.9**	**J**	18	8.2	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Bis(2-chloroethoxy)methane	120	U	120	14	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Bis(2-chloroethyl)ether	120	U	120	14	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Bis(2-ethylhexyl) phthalate	83	U	83	61	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Butyl benzyl phthalate	83	U	83	26	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Caprolactam	390	U	390	89	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Carbazole	59	U	59	23	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Chrysene	**24**		18	1.8	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Dibenz(a,h)anthracene	18	U	18	8.2	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB07-4-6

Date Collected: 03/06/19 11:55
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-18

Matrix: Solid
Percent Solids: 83.1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	59	U	59	15	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Diethyl phthalate	83	U	83	37	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Dimethyl phthalate	83	U	83	17	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Di-n-butyl phthalate	83	U	83	26	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Di-n-octyl phthalate	83	U	83	33	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Fluoranthene	**32**		18	5.3	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Fluorene	18	U	18	3.3	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Hexachlorobenzene	18	U	18	3.4	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Hexachlorobutadiene	59	U	59	14	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Hexachlorocyclopentadiene	390	U	390	74	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Hexachloroethane	59	U	59	11	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Indeno[1,2,3-cd]pyrene	**13**	**J**	18	8.8	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Isophorone	59	U	59	14	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Naphthalene	18	U	18	2.9	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Nitrobenzene	120	U	120	15	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
N-Nitrosodi-n-propylamine	59	U	59	13	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
N-Nitrosodiphenylamine	59	U	59	14	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Pentachlorophenol	180	U	180	69	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Phenol	59	U	59	9.5	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Phenanthrene	**20**		18	2.7	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
Pyrene	**30**		18	2.5	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1
3 & 4 Methylphenol	480	U	480	35	ug/Kg	☼	03/16/19 10:19	03/19/19 14:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*69*		*32 - 120*	*03/16/19 10:19*	*03/19/19 14:36*	*1*
2-Fluorophenol (Surr)	*67*		*29 - 120*	*03/16/19 10:19*	*03/19/19 14:36*	*1*
2,4,6-Tribromophenol (Surr)	*62*		*10 - 120*	*03/16/19 10:19*	*03/19/19 14:36*	*1*
Nitrobenzene-d5 (Surr)	*59*		*30 - 120*	*03/16/19 10:19*	*03/19/19 14:36*	*1*
Phenol-d5 (Surr)	*69*		*29 - 120*	*03/16/19 10:19*	*03/19/19 14:36*	*1*
Terphenyl-d14 (Surr)	*85*		*41 - 120*	*03/16/19 10:19*	*03/19/19 14:36*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.9**		1.1	0.36	mg/Kg	☼	03/11/19 14:00	03/12/19 17:55	1
Lead	**2.3**		1.1	0.32	mg/Kg	☼	03/11/19 14:00	03/12/19 17:55	1
Selenium	1.7	U	1.7	0.53	mg/Kg	☼	03/11/19 14:00	03/12/19 17:55	1
Thallium	1.1	U	1.1	0.45	mg/Kg	☼	03/11/19 14:00	03/12/19 17:55	1
Antimony	1.1	U	1.1	0.40	mg/Kg	☼	03/11/19 14:00	03/12/19 17:55	1
Barium	**3.4**	**J**	22	0.41	mg/Kg	☼	03/11/19 14:00	03/12/19 17:55	1
Beryllium	0.56	U ^	0.56	0.061	mg/Kg	☼	03/11/19 14:00	03/12/19 17:55	1
Cadmium	**0.057**	**J**	0.22	0.054	mg/Kg	☼	03/11/19 14:00	03/12/19 17:55	1
Chromium	**4.1**		0.56	0.17	mg/Kg	☼	03/11/19 14:00	03/12/19 17:55	1
Cobalt	**1.1**		1.1	0.22	mg/Kg	☼	03/11/19 14:00	03/12/19 17:55	1
Copper	**2.0**	**J**	2.8	0.27	mg/Kg	☼	03/11/19 14:00	03/12/19 17:55	1
Nickel	**2.6**	**J**	4.5	0.26	mg/Kg	☼	03/11/19 14:00	03/12/19 17:55	1
Silver	**0.35**	**J B**	0.56	0.091	mg/Kg	☼	03/11/19 14:00	03/12/19 17:55	1
Magnesium	**9800**		560	52	mg/Kg	☼	03/11/19 14:00	03/12/19 17:55	1
Tin	11	U	11	4.1	mg/Kg	☼	03/11/19 14:00	03/12/19 17:55	1
Manganese	**120**	**B**	1.7	0.35	mg/Kg	☼	03/11/19 14:00	03/12/19 17:55	1
Vanadium	**9.5**		5.6	0.92	mg/Kg	☼	03/11/19 14:00	03/12/19 17:55	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB07-4-6

Date Collected: 03/06/19 11:55
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-18

Matrix: Solid
Percent Solids: 83.1

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	11		5.6	1.5	mg/Kg	☼	03/11/19 14:00	03/12/19 17:55	1
Sodium	82	J	560	71	mg/Kg	☼	03/11/19 14:00	03/12/19 17:55	1
Iron	4200		11	7.8	mg/Kg	☼	03/11/19 14:00	03/12/19 17:55	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13	U	0.13	0.023	mg/Kg	☼	03/11/19 16:00	03/13/19 11:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.60	U	0.60	0.23	mg/Kg	☼	03/12/19 13:31	03/12/19 14:38	1
Sulfide	21	J	36	18	mg/Kg	☼	03/12/19 08:22	03/12/19 13:24	1
Percent Solids	83.1		0.1	0.1	%			03/11/19 16:53	1
Percent Moisture	16.9		0.1	0.1	%			03/11/19 16:53	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB09-0-2

Date Collected: 03/06/19 12:40
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-19

Matrix: Solid
Percent Solids: 93.6

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	250	U *	250	14	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
1,1,2,2-Tetrachloroethane	250	U	250	14	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	250	U	250	67	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
1,1,2-Trichloroethane	250	U	250	13	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
1,1-Dichloroethane	250	U	250	9.0	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
1,1-Dichloroethene	250	U	250	15	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
1,2,4-Trichlorobenzene	250	U	250	130	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
1,2-Dibromo-3-Chloropropane	500	U *	500	88	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Ethylene Dibromide	250	U *	250	79	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
1,2-Dichlorobenzene	250	U	250	21	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
1,2-Dichloroethane	250	U	250	12	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
1,2-Dichloropropane	250	U	250	8.0	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
1,3-Dichlorobenzene	250	U	250	21	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
1,4-Dichlorobenzene	250	U	250	17	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
2-Butanone (MEK)	1000	U	1000	160	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
2-Hexanone	1000	U	1000	260	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
4-Methyl-2-pentanone (MIBK)	1000	U	1000	240	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Acetone	1000	U	1000	240	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Benzene	250	U	250	8.0	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Dichlorobromomethane	250	U	250	28	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Bromoform	250	U *	250	110	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Bromomethane	250	U	250	170	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Carbon disulfide	250	U	250	110	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Carbon tetrachloride	250	U *	250	18	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Chlorobenzene	250	U	250	35	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Chloroethane	250	U	250	150	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Chloroform	250	U	250	9.0	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Chloromethane	250	U	250	66	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
cis-1,2-Dichloroethene	250	U	250	9.0	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
cis-1,3-Dichloropropene	250	U *	250	37	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Cyclohexane	500	U	500	160	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Chlorodibromomethane	250	U *	250	120	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Dichlorodifluoromethane	250	U	250	53	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Ethylbenzene	250	U	250	12	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Isopropylbenzene	250	U	250	38	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Methyl acetate	**530**	**J**	1200	520	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Methyl tert-butyl ether	250	U	250	37	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Methylcyclohexane	500	U	500	66	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Methylene Chloride	500	U	500	380	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Styrene	250	U	250	12	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Tetrachloroethene	250	U	250	15	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Toluene	250	U	250	45	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
trans-1,2-Dichloroethene	250	U	250	15	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
trans-1,3-Dichloropropene	250	U *	250	100	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Trichloroethene	250	U	250	13	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Trichlorofluoromethane	250	U	250	46	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Vinyl chloride	250	U	250	10	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Xylenes, Total	500	U	500	23	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1
Naphthalene	250	U *	250	120	ug/Kg	☼	03/13/19 13:53	03/15/19 13:10	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB09-0-2

Date Collected: 03/06/19 12:40
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-19

Matrix: Solid
Percent Solids: 93.6

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*86*		*49 - 147*	*03/13/19 13:53*	*03/15/19 13:10*	*1*
Dibromofluoromethane (Surr)	*79*		*49 - 138*	*03/13/19 13:53*	*03/15/19 13:10*	*1*
4-Bromofluorobenzene (Surr)	*86*		*48 - 151*	*03/13/19 13:53*	*03/15/19 13:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*53 - 155*	*03/13/19 13:53*	*03/15/19 13:10*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	110	U	110	36	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
bis (2-chloroisopropyl) ether	210	U	210	21	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
2,4,5-Trichlorophenol	320	U	320	150	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
2,4,6-Trichlorophenol	320	U	320	140	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
2,4-Dichlorophenol	320	U	320	93	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
2,4-Dimethylphenol	320	U	320	85	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
2,4-Dinitrophenol	700	U	700	300	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
2,4-Dinitrotoluene	420	U	420	130	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
2,6-Dinitrotoluene	420	U	420	120	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
2-Chloronaphthalene	110	U	110	30	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
2-Chlorophenol	110	U	110	21	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
2-Methylnaphthalene	**79**		32	4.2	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
2-Methylphenol	420	U	420	66	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
2-Nitroaniline	420	U	420	85	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
2-Nitrophenol	110	U	110	28	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
3,3'-Dichlorobenzidine	210	U	210	91	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
3-Nitroaniline	420	U	420	100	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
4,6-Dinitro-2-methylphenol	700	U	700	170	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
4-Bromophenyl phenyl ether	110	U	110	30	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
4-Chloro-3-methylphenol	320	U	320	95	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
4-Chloroaniline	320	U	320	64	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
4-Chlorophenyl phenyl ether	110	U	110	30	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
4-Nitroaniline	420	U	420	130	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
4-Nitrophenol	700	U	700	200	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Acenaphthene	**53**		32	6.1	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Acenaphthylene	**200**		32	8.5	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Acetophenone	210	U	210	23	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Anthracene	**290**		32	5.1	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Atrazine	420	U	420	76	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Benzaldehyde	210	U	210	49	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Benzo[a]anthracene	**770**		32	7.2	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Benzo[a]pyrene	**820**		32	20	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Benzo[b]fluoranthene	**1400**		32	14	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Benzo[g,h,i]perylene	**820**		32	15	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Benzo[k]fluoranthene	**450**		32	15	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Bis(2-chloroethoxy)methane	210	U	210	25	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Bis(2-chloroethyl)ether	210	U	210	25	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Bis(2-ethylhexyl) phthalate	**170**		150	110	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Butyl benzyl phthalate	150	U	150	47	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Caprolactam	700	U	700	160	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Carbazole	**92**	**J**	110	40	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Chrysene	**880**		32	3.2	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Dibenz(a,h)anthracene	**220**		32	15	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB09-0-2

Date Collected: 03/06/19 12:40
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-19

Matrix: Solid
Percent Solids: 93.6

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	**71**	**J**	110	28	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Diethyl phthalate	150	U	150	66	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Dimethyl phthalate	150	U	150	30	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Di-n-butyl phthalate	150	U	150	47	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Di-n-octyl phthalate	150	U	150	59	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Fluoranthene	**1900**		32	9.4	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Fluorene	**56**		32	5.8	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Hexachlorobenzene	32	U	32	6.0	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Hexachlorobutadiene	110	U	110	25	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Hexachlorocyclopentadiene	700	U	700	130	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Hexachloroethane	110	U	110	19	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Indeno[1,2,3-cd]pyrene	**690**		32	16	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Isophorone	110	U	110	25	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Naphthalene	**85**		32	5.1	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Nitrobenzene	210	U	210	28	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
N-Nitrosodi-n-propylamine	110	U	110	23	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
N-Nitrosodiphenylamine	110	U	110	25	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Pentachlorophenol	320	U	320	120	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Phenol	110	U	110	17	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Phenanthrene	**690**		32	4.7	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
Pyrene	**1600**		32	4.5	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2
3 & 4 Methylphenol	850	U	850	61	ug/Kg	☼	03/16/19 10:19	03/19/19 16:37	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*75*		*32 - 120*	*03/16/19 10:19*	*03/19/19 16:37*	*2*
2-Fluorophenol (Surr)	*74*		*29 - 120*	*03/16/19 10:19*	*03/19/19 16:37*	*2*
2,4,6-Tribromophenol (Surr)	*78*		*10 - 120*	*03/16/19 10:19*	*03/19/19 16:37*	*2*
Nitrobenzene-d5 (Surr)	*58*		*30 - 120*	*03/16/19 10:19*	*03/19/19 16:37*	*2*
Phenol-d5 (Surr)	*73*		*29 - 120*	*03/16/19 10:19*	*03/19/19 16:37*	*2*
Terphenyl-d14 (Surr)	*90*		*41 - 120*	*03/16/19 10:19*	*03/19/19 16:37*	*2*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.70**	**J**	1.0	0.33	mg/Kg	☼	03/11/19 14:00	03/13/19 16:57	1
Lead	**56**		1.0	0.29	mg/Kg	☼	03/11/19 14:00	03/12/19 17:59	1
Selenium	1.6	U	1.6	0.49	mg/Kg	☼	03/11/19 14:00	03/13/19 16:57	1
Thallium	1.0	U	1.0	0.41	mg/Kg	☼	03/11/19 14:00	03/13/19 16:57	1
Antimony	**0.39**	**J**	1.0	0.37	mg/Kg	☼	03/11/19 14:00	03/12/19 17:59	1
Barium	**190**		21	0.38	mg/Kg	☼	03/11/19 14:00	03/12/19 17:59	1
Beryllium	**4.4**		1.0	0.11	mg/Kg	☼	03/11/19 14:00	03/13/19 13:22	2
Cadmium	**0.61**		0.21	0.050	mg/Kg	☼	03/11/19 14:00	03/12/19 17:59	1
Chromium	**62**		0.52	0.16	mg/Kg	☼	03/11/19 14:00	03/12/19 17:59	1
Cobalt	**3.5**		1.0	0.21	mg/Kg	☼	03/11/19 14:00	03/12/19 17:59	1
Copper	**70**		5.2	0.49	mg/Kg	☼	03/11/19 14:00	03/13/19 13:22	2
Nickel	**29**		4.1	0.24	mg/Kg	☼	03/11/19 14:00	03/12/19 17:59	1
Silver	**0.84**	**B**	0.52	0.084	mg/Kg	☼	03/11/19 14:00	03/12/19 17:59	1
Magnesium	**23000**		520	48	mg/Kg	☼	03/11/19 14:00	03/12/19 17:59	1
Tin	**9.6**	**J**	10	3.8	mg/Kg	☼	03/11/19 14:00	03/12/19 17:59	1
Manganese	**540**	**B**	1.6	0.32	mg/Kg	☼	03/11/19 14:00	03/13/19 16:57	1
Vanadium	**23**		5.2	0.85	mg/Kg	☼	03/11/19 14:00	03/12/19 17:59	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB09-0-2

Date Collected: 03/06/19 12:40
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-19

Matrix: Solid
Percent Solids: 93.6

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	170		5.2	1.4	mg/Kg	☼	03/11/19 14:00	03/12/19 17:59	1
Sodium	760		520	65	mg/Kg	☼	03/11/19 14:00	03/12/19 17:59	1
Iron	43000		10	7.2	mg/Kg	☼	03/11/19 14:00	03/12/19 17:59	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.12		0.11	0.020	mg/Kg	☼	03/11/19 16:00	03/13/19 11:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.67		0.58	0.22	mg/Kg	☼	03/12/19 13:31	03/12/19 14:40	1
Sulfide	330		32	16	mg/Kg	☼	03/12/19 08:22	03/12/19 13:24	1
Percent Solids	93.6		0.1	0.1	%			03/11/19 16:53	1
Percent Moisture	6.4		0.1	0.1	%			03/11/19 16:53	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB09-3-5

Date Collected: 03/06/19 13:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-20

Matrix: Solid
Percent Solids: 86.5

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	290	U *	290	16	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
1,1,2,2-Tetrachloroethane	290	U	290	16	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	290	U	290	78	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
1,1,2-Trichloroethane	290	U	290	15	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
1,1-Dichloroethane	290	U	290	10	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
1,1-Dichloroethene	290	U	290	17	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
1,2,4-Trichlorobenzene	290	U	290	150	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
1,2-Dibromo-3-Chloropropane	580	U *	580	100	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Ethylene Dibromide	290	U *	290	92	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
1,2-Dichlorobenzene	290	U	290	24	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
1,2-Dichloroethane	290	U	290	14	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
1,2-Dichloropropane	290	U	290	9.3	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
1,3-Dichlorobenzene	290	U	290	24	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
1,4-Dichlorobenzene	290	U	290	20	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
2-Butanone (MEK)	1200	U	1200	180	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
2-Hexanone	1200	U	1200	310	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
4-Methyl-2-pentanone (MIBK)	1200	U	1200	280	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Acetone	1200	U	1200	280	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Benzene	290	U	290	9.3	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Dichlorobromomethane	290	U	290	33	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Bromoform	290	U *	290	120	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Bromomethane	290	U	290	190	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Carbon disulfide	290	U	290	130	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Carbon tetrachloride	290	U *	290	21	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Chlorobenzene	290	U	290	41	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Chloroethane	290	U	290	170	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Chloroform	290	U	290	10	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Chloromethane	290	U	290	77	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
cis-1,2-Dichloroethene	290	U	290	10	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
cis-1,3-Dichloropropene	290	U *	290	43	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Cyclohexane	580	U	580	190	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Chlorodibromomethane	290	U *	290	140	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Dichlorodifluoromethane	290	U	290	62	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Ethylbenzene	290	U	290	14	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Isopropylbenzene	290	U	290	44	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Methyl acetate	1500	U	1500	610	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Methyl tert-butyl ether	290	U	290	43	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Methylcyclohexane	580	U	580	77	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Methylene Chloride	580	U	580	450	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Styrene	290	U	290	14	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Tetrachloroethene	290	U	290	17	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Toluene	290	U	290	52	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
trans-1,2-Dichloroethene	290	U	290	17	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
trans-1,3-Dichloropropene	290	U *	290	120	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Trichloroethene	290	U	290	15	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Trichlorofluoromethane	290	U	290	54	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Vinyl chloride	290	U	290	12	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Xylenes, Total	580	U	580	27	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1
Naphthalene	290	U *	290	140	ug/Kg	☼	03/13/19 13:53	03/15/19 13:32	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB09-3-5

Date Collected: 03/06/19 13:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-20

Matrix: Solid
Percent Solids: 86.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*84*		*49 - 147*	*03/13/19 13:53*	*03/15/19 13:32*	*1*
Dibromofluoromethane (Surr)	*84*		*49 - 138*	*03/13/19 13:53*	*03/15/19 13:32*	*1*
4-Bromofluorobenzene (Surr)	*87*		*48 - 151*	*03/13/19 13:53*	*03/15/19 13:32*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*53 - 155*	*03/13/19 13:53*	*03/15/19 13:32*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	58	U	58	20	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
bis (2-chloroisopropyl) ether	120	U	120	12	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
2,4,5-Trichlorophenol	170	U	170	80	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
2,4,6-Trichlorophenol	170	U	170	74	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
2,4-Dichlorophenol	170	U	170	51	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
2,4-Dimethylphenol	170	U	170	46	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
2,4-Dinitrophenol	380	U	380	160	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
2,4-Dinitrotoluene	230	U	230	72	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
2,6-Dinitrotoluene	230	U	230	65	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
2-Chloronaphthalene	58	U	58	16	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
2-Chlorophenol	58	U	58	12	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
2-Methylnaphthalene	**53**		17	2.3	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
2-Methylphenol	230	U	230	36	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
2-Nitroaniline	230	U	230	46	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
2-Nitrophenol	58	U	58	15	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
3,3'-Dichlorobenzidine	120	U	120	50	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
3-Nitroaniline	230	U	230	57	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
4,6-Dinitro-2-methylphenol	380	U	380	93	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
4-Bromophenyl phenyl ether	58	U	58	16	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
4-Chloro-3-methylphenol	170	U	170	52	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
4-Chloroaniline	170	U	170	35	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
4-Chlorophenyl phenyl ether	58	U	58	16	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
4-Nitroaniline	230	U	230	70	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
4-Nitrophenol	380	U	380	110	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Acenaphthene	17	U	17	3.3	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Acenaphthylene	**50**		17	4.6	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Acetophenone	120	U	120	13	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Anthracene	**66**		17	2.8	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Atrazine	230	U	230	42	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Benzaldehyde	120	U	120	27	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Benzo[a]anthracene	**440**		17	4.0	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Benzo[a]pyrene	**680**		17	11	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Benzo[b]fluoranthene	**1200**		17	7.5	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Benzo[g,h,i]perylene	**900**		17	8.2	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Benzo[k]fluoranthene	**400**		17	8.0	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Bis(2-chloroethoxy)methane	120	U	120	14	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Bis(2-chloroethyl)ether	120	U	120	14	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Bis(2-ethylhexyl) phthalate	81	U	81	59	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Butyl benzyl phthalate	81	U	81	25	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Caprolactam	380	U	380	87	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Carbazole	**27**	**J**	58	22	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Chrysene	**680**		17	1.7	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Dibenz(a,h)anthracene	**280**		17	8.0	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB09-3-5

Date Collected: 03/06/19 13:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-20

Matrix: Solid
Percent Solids: 86.5

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	**33**	**J**	58	15	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Diethyl phthalate	81	U	81	36	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Dimethyl phthalate	81	U	81	16	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Di-n-butyl phthalate	81	U	81	25	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Di-n-octyl phthalate	81	U	81	32	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Fluoranthene	**460**		17	5.2	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Fluorene	17	U	17	3.2	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Hexachlorobenzene	17	U	17	3.3	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Hexachlorobutadiene	58	U	58	14	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Hexachlorocyclopentadiene	380	U	380	72	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Hexachloroethane	58	U	58	10	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Indeno[1,2,3-cd]pyrene	**680**		17	8.5	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Isophorone	58	U	58	14	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Naphthalene	**55**		17	2.8	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Nitrobenzene	120	U	120	15	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
N-Nitrosodi-n-propylamine	58	U	58	13	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
N-Nitrosodiphenylamine	58	U	58	14	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Pentachlorophenol	170	U	170	67	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Phenol	58	U	58	9.3	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Phenanthrene	**210**		17	2.6	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
Pyrene	**460**		17	2.5	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1
3 & 4 Methylphenol	460	U	460	34	ug/Kg	☼	03/16/19 10:19	03/19/19 16:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*78*		*32 - 120*	*03/16/19 10:19*	*03/19/19 16:13*	*1*
2-Fluorophenol (Surr)	*71*		*29 - 120*	*03/16/19 10:19*	*03/19/19 16:13*	*1*
2,4,6-Tribromophenol (Surr)	*68*		*10 - 120*	*03/16/19 10:19*	*03/19/19 16:13*	*1*
Nitrobenzene-d5 (Surr)	*64*		*30 - 120*	*03/16/19 10:19*	*03/19/19 16:13*	*1*
Phenol-d5 (Surr)	*73*		*29 - 120*	*03/16/19 10:19*	*03/19/19 16:13*	*1*
Terphenyl-d14 (Surr)	*93*		*41 - 120*	*03/16/19 10:19*	*03/19/19 16:13*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.7**		0.94	0.30	mg/Kg	☼	03/11/19 14:00	03/12/19 18:08	1
Lead	**17**		0.94	0.27	mg/Kg	☼	03/11/19 14:00	03/12/19 18:08	1
Selenium	**0.68**	**J**	1.4	0.44	mg/Kg	☼	03/11/19 14:00	03/12/19 18:08	1
Thallium	0.94	U	0.94	0.38	mg/Kg	☼	03/11/19 14:00	03/12/19 18:08	1
Antimony	0.94	U	0.94	0.34	mg/Kg	☼	03/11/19 14:00	03/12/19 18:08	1
Barium	**11**	**J**	19	0.34	mg/Kg	☼	03/11/19 14:00	03/12/19 18:08	1
Beryllium	**0.20**	**J ^**	0.47	0.051	mg/Kg	☼	03/11/19 14:00	03/12/19 18:08	1
Cadmium	**0.22**		0.19	0.045	mg/Kg	☼	03/11/19 14:00	03/12/19 18:08	1
Chromium	**12**		0.47	0.14	mg/Kg	☼	03/11/19 14:00	03/12/19 18:08	1
Cobalt	**2.5**		0.94	0.19	mg/Kg	☼	03/11/19 14:00	03/12/19 18:08	1
Copper	**19**		2.4	0.22	mg/Kg	☼	03/11/19 14:00	03/12/19 18:08	1
Nickel	**8.9**		3.8	0.22	mg/Kg	☼	03/11/19 14:00	03/12/19 18:08	1
Silver	**0.27**	**J B**	0.47	0.076	mg/Kg	☼	03/11/19 14:00	03/12/19 18:08	1
Magnesium	**590**		470	43	mg/Kg	☼	03/11/19 14:00	03/12/19 18:08	1
Tin	**4.8**	**J**	9.4	3.4	mg/Kg	☼	03/11/19 14:00	03/12/19 18:08	1
Manganese	**600**	**B**	1.4	0.29	mg/Kg	☼	03/11/19 14:00	03/12/19 18:08	1
Vanadium	**7.8**		4.7	0.77	mg/Kg	☼	03/11/19 14:00	03/12/19 18:08	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB09-3-5

Date Collected: 03/06/19 13:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-20

Matrix: Solid
Percent Solids: 86.5

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	**63**		4.7	1.3	mg/Kg	☼	03/11/19 14:00	03/12/19 18:08	1
Sodium	470	U	470	59	mg/Kg	☼	03/11/19 14:00	03/12/19 18:08	1
Iron	**24000**		9.4	6.5	mg/Kg	☼	03/11/19 14:00	03/12/19 18:08	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.12	U	0.12	0.021	mg/Kg	☼	03/11/19 16:00	03/13/19 11:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.56	U	0.56	0.21	mg/Kg	☼	03/12/19 13:31	03/12/19 14:42	1
Sulfide	35	U	35	17	mg/Kg	☼	03/12/19 08:22	03/12/19 13:24	1
Percent Solids	**86.5**		0.1	0.1	%			03/11/19 16:53	1
Percent Moisture	**13.5**		0.1	0.1	%			03/11/19 16:53	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB10-0-2

Date Collected: 03/06/19 13:35
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-21

Matrix: Solid
Percent Solids: 91.8

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	360	U *	360	20	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
1,1,2,2-Tetrachloroethane	360	U	360	20	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	360	U	360	97	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
1,1,2-Trichloroethane	360	U	360	19	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
1,1-Dichloroethane	360	U	360	13	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
1,1-Dichloroethene	360	U	360	22	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
1,2,4-Trichlorobenzene	360	U	360	190	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
1,2-Dibromo-3-Chloropropane	720	U *	720	130	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Ethylene Dibromide	360	U *	360	110	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
1,2-Dichlorobenzene	360	U	360	30	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
1,2-Dichloroethane	360	U	360	17	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
1,2-Dichloropropane	360	U	360	12	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
1,3-Dichlorobenzene	360	U	360	30	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
1,4-Dichlorobenzene	360	U	360	24	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
2-Butanone (MEK)	1400	U	1400	230	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
2-Hexanone	1400	U	1400	380	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
4-Methyl-2-pentanone (MIBK)	1400	U	1400	340	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Acetone	1400	U	1400	350	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Benzene	360	U	360	12	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Dichlorobromomethane	360	U	360	40	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Bromoform	360	U *	360	150	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Bromomethane	360	U	360	240	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Carbon disulfide	360	U	360	160	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Carbon tetrachloride	360	U *	360	26	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Chlorobenzene	360	U	360	50	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Chloroethane	360	U	360	220	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Chloroform	360	U	360	13	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Chloromethane	360	U	360	95	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
cis-1,2-Dichloroethene	360	U	360	13	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
cis-1,3-Dichloropropene	360	U *	360	53	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Cyclohexane	720	U	720	230	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Chlorodibromomethane	360	U *	360	170	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Dichlorodifluoromethane	360	U	360	76	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Ethylbenzene	360	U	360	17	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Isopropylbenzene	360	U	360	55	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Methyl acetate	1800	U	1800	760	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Methyl tert-butyl ether	360	U	360	53	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Methylcyclohexane	720	U	720	95	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Methylene Chloride	720	U	720	550	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Styrene	360	U	360	17	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Tetrachloroethene	360	U	360	22	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Toluene	360	U	360	65	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
trans-1,2-Dichloroethene	360	U	360	22	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
trans-1,3-Dichloropropene	360	U *	360	150	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Trichloroethene	360	U	360	19	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Trichlorofluoromethane	360	U	360	66	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Vinyl chloride	360	U	360	14	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Xylenes, Total	720	U	720	33	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1
Naphthalene	360	U *	360	170	ug/Kg	☼	03/13/19 13:53	03/15/19 13:54	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB10-0-2

Date Collected: 03/06/19 13:35
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-21

Matrix: Solid
Percent Solids: 91.8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*85*		*49 - 147*	*03/13/19 13:53*	*03/15/19 13:54*	*1*
Dibromofluoromethane (Surr)	*84*		*49 - 138*	*03/13/19 13:53*	*03/15/19 13:54*	*1*
4-Bromofluorobenzene (Surr)	*88*		*48 - 151*	*03/13/19 13:53*	*03/15/19 13:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*53 - 155*	*03/13/19 13:53*	*03/15/19 13:54*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	130	U	130	46	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
bis (2-chloroisopropyl) ether	270	U	270	27	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
2,4,5-Trichlorophenol	400	U	400	190	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
2,4,6-Trichlorophenol	400	U	400	170	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
2,4-Dichlorophenol	400	U	400	120	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
2,4-Dimethylphenol	400	U	400	110	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
2,4-Dinitrophenol	890	U	890	380	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
2,4-Dinitrotoluene	540	U	540	170	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
2,6-Dinitrotoluene	540	U	540	150	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
2-Chloronaphthalene	130	U	130	38	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
2-Chlorophenol	130	U	130	27	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
2-Methylnaphthalene	**130**		40	5.3	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
2-Methylphenol	540	U	540	84	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
2-Nitroaniline	540	U	540	110	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
2-Nitrophenol	130	U	130	35	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
3,3'-Dichlorobenzidine	270	U	270	120	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
3-Nitroaniline	540	U	540	130	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
4,6-Dinitro-2-methylphenol	890	U	890	220	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
4-Bromophenyl phenyl ether	130	U	130	38	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
4-Chloro-3-methylphenol	400	U	400	120	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
4-Chloroaniline	400	U	400	81	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
4-Chlorophenyl phenyl ether	130	U	130	38	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
4-Nitroaniline	540	U	540	160	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
4-Nitrophenol	890	U	890	250	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Acenaphthene	**59**		40	7.7	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Acenaphthylene	**29**	**J**	40	11	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Acetophenone	270	U	270	30	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Anthracene	**150**		40	6.5	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Atrazine	540	U	540	97	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Benzaldehyde	**63**	**J**	270	62	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Benzo[a]anthracene	**370**		40	9.2	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Benzo[a]pyrene	**340**		40	25	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Benzo[b]fluoranthene	**490**		40	18	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Benzo[g,h,i]perylene	**240**		40	19	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Benzo[k]fluoranthene	**130**		40	19	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Bis(2-chloroethoxy)methane	270	U	270	32	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Bis(2-chloroethyl)ether	270	U	270	32	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Bis(2-ethylhexyl) phthalate	190	U	190	140	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Butyl benzyl phthalate	190	U	190	59	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Caprolactam	890	U	890	200	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Carbazole	**69**	**J**	130	51	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Chrysene	**420**		40	4.0	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Dibenz(a,h)anthracene	**63**		40	19	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5

Client Sample ID: SB10-0-2

Date Collected: 03/06/19 13:35
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-21

Matrix: Solid
Percent Solids: 91.8

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	**120**	**J**	130	35	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Diethyl phthalate	190	U	190	84	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Dimethyl phthalate	190	U	190	38	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Di-n-butyl phthalate	190	U	190	59	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Di-n-octyl phthalate	190	U	190	75	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Fluoranthene	**890**		40	12	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Fluorene	**53**		40	7.4	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Hexachlorobenzene	40	U	40	7.7	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Hexachlorobutadiene	130	U	130	32	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Hexachlorocyclopentadiene	890	U	890	170	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Hexachloroethane	130	U	130	24	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Indeno[1,2,3-cd]pyrene	**210**		40	20	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Isophorone	130	U	130	32	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Naphthalene	**59**		40	6.5	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Nitrobenzene	270	U	270	35	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
N-Nitrosodi-n-propylamine	130	U	130	30	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
N-Nitrosodiphenylamine	130	U	130	32	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Pentachlorophenol	400	U	400	160	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Phenol	130	U	130	22	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Phenanthrene	**990**		40	6.0	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
Pyrene	**690**		40	5.8	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5
3 & 4 Methylphenol	1100	U	1100	78	ug/Kg	☼	03/16/19 10:19	03/19/19 17:26	2.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*91*		*32 - 120*	*03/16/19 10:19*	*03/19/19 17:26*	*2.5*
2-Fluorophenol (Surr)	*78*		*29 - 120*	*03/16/19 10:19*	*03/19/19 17:26*	*2.5*
2,4,6-Tribromophenol (Surr)	*71*		*10 - 120*	*03/16/19 10:19*	*03/19/19 17:26*	*2.5*
Nitrobenzene-d5 (Surr)	*69*		*30 - 120*	*03/16/19 10:19*	*03/19/19 17:26*	*2.5*
Phenol-d5 (Surr)	*85*		*29 - 120*	*03/16/19 10:19*	*03/19/19 17:26*	*2.5*
Terphenyl-d14 (Surr)	*103*		*41 - 120*	*03/16/19 10:19*	*03/19/19 17:26*	*2.5*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.9**		2.1	0.65	mg/Kg	☼	03/11/19 14:00	03/13/19 13:27	2
Lead	**29**		1.0	0.29	mg/Kg	☼	03/11/19 14:00	03/12/19 18:12	1
Selenium	**1.4**	**J**	3.1	0.96	mg/Kg	☼	03/11/19 14:00	03/13/19 13:27	2
Thallium	2.1	U	2.1	0.82	mg/Kg	☼	03/11/19 14:00	03/13/19 13:27	2
Antimony	1.0	U	1.0	0.37	mg/Kg	☼	03/11/19 14:00	03/12/19 18:12	1
Barium	**32**		21	0.37	mg/Kg	☼	03/11/19 14:00	03/12/19 18:12	1
Beryllium	**0.28**	**J ^**	0.51	0.055	mg/Kg	☼	03/11/19 14:00	03/12/19 18:12	1
Cadmium	**0.36**		0.21	0.049	mg/Kg	☼	03/11/19 14:00	03/12/19 18:12	1
Chromium	**61**		0.51	0.16	mg/Kg	☼	03/11/19 14:00	03/12/19 18:12	1
Cobalt	**2.5**		1.0	0.21	mg/Kg	☼	03/11/19 14:00	03/12/19 18:12	1
Copper	**28**		2.6	0.24	mg/Kg	☼	03/11/19 14:00	03/12/19 18:12	1
Nickel	**9.2**		4.1	0.24	mg/Kg	☼	03/11/19 14:00	03/12/19 18:12	1
Silver	**0.46**	**J B**	0.51	0.083	mg/Kg	☼	03/11/19 14:00	03/12/19 18:12	1
Magnesium	**16000**		510	47	mg/Kg	☼	03/11/19 14:00	03/12/19 18:12	1
Tin	**5.0**	**J**	10	3.7	mg/Kg	☼	03/11/19 14:00	03/12/19 18:12	1
Manganese	**1900**	**B**	3.1	0.64	mg/Kg	☼	03/11/19 14:00	03/13/19 13:27	2
Vanadium	**28**		5.1	0.84	mg/Kg	☼	03/11/19 14:00	03/12/19 18:12	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB10-0-2

Date Collected: 03/06/19 13:35
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-21

Matrix: Solid
Percent Solids: 91.8

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	88		5.1	1.4	mg/Kg	☼	03/11/19 14:00	03/12/19 18:12	1
Sodium	150	J	510	64	mg/Kg	☼	03/11/19 14:00	03/12/19 18:12	1
Iron	19000		10	7.1	mg/Kg	☼	03/11/19 14:00	03/12/19 18:12	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019	J	0.098	0.018	mg/Kg	☼	03/11/19 16:00	03/13/19 11:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.48	J	0.52	0.20	mg/Kg	☼	03/12/19 13:31	03/12/19 14:44	1
Sulfide	41		33	16	mg/Kg	☼	03/12/19 08:22	03/12/19 13:24	1
Percent Solids	91.8		0.1	0.1	%			03/11/19 16:53	1
Percent Moisture	8.2		0.1	0.1	%			03/11/19 16:53	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB10-4-6

Date Collected: 03/06/19 14:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-22

Matrix: Solid
Percent Solids: 84.9

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	290	U *	290	16	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
1,1,2,2-Tetrachloroethane	290	U	290	16	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	290	U	290	79	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
1,1,2-Trichloroethane	290	U	290	15	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
1,1-Dichloroethane	290	U	290	11	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
1,1-Dichloroethene	290	U	290	18	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
1,2,4-Trichlorobenzene	290	U	290	160	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
1,2-Dibromo-3-Chloropropane	590	U *	590	100	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Ethylene Dibromide	290	U *	290	93	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
1,2-Dichlorobenzene	290	U	290	25	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
1,2-Dichloroethane	290	U	290	14	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
1,2-Dichloropropane	290	U	290	9.4	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
1,3-Dichlorobenzene	290	U	290	25	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
1,4-Dichlorobenzene	290	U	290	20	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
2-Butanone (MEK)	1200	U	1200	180	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
2-Hexanone	1200	U	1200	310	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
4-Methyl-2-pentanone (MIBK)	1200	U	1200	280	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Acetone	1200	U	1200	290	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Benzene	290	U	290	9.4	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Dichlorobromomethane	290	U	290	33	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Bromoform	290	U *	290	120	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Bromomethane	290	U	290	200	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Carbon disulfide	290	U	290	130	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Carbon tetrachloride	290	U *	290	21	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Chlorobenzene	290	U	290	41	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Chloroethane	290	U	290	180	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Chloroform	290	U	290	11	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Chloromethane	290	U	290	78	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
cis-1,2-Dichloroethene	290	U	290	11	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
cis-1,3-Dichloropropene	290	U *	290	44	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Cyclohexane	590	U	590	190	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Chlorodibromomethane	290	U *	290	140	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Dichlorodifluoromethane	290	U	290	62	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Ethylbenzene	290	U	290	14	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Isopropylbenzene	290	U	290	45	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Methyl acetate	1500	U	1500	620	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Methyl tert-butyl ether	290	U	290	44	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Methylcyclohexane	590	U	590	78	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Methylene Chloride	590	U	590	450	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Styrene	290	U	290	14	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Tetrachloroethene	290	U	290	18	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Toluene	290	U	290	53	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
trans-1,2-Dichloroethene	290	U	290	18	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
trans-1,3-Dichloropropene	290	U *	290	120	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Trichloroethene	290	U	290	15	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Trichlorofluoromethane	290	U	290	54	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Vinyl chloride	290	U	290	12	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Xylenes, Total	590	U	590	27	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1
Naphthalene	290	U *	290	140	ug/Kg	☼	03/13/19 14:57	03/15/19 14:15	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB10-4-6

Date Collected: 03/06/19 14:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-22

Matrix: Solid
Percent Solids: 84.9

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*74*		*49 - 147*	*03/13/19 14:57*	*03/15/19 14:15*	*1*
Dibromofluoromethane (Surr)	*75*		*49 - 138*	*03/13/19 14:57*	*03/15/19 14:15*	*1*
4-Bromofluorobenzene (Surr)	*77*		*48 - 151*	*03/13/19 14:57*	*03/15/19 14:15*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*53 - 155*	*03/13/19 14:57*	*03/15/19 14:15*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	59	U	59	20	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
bis (2-chloroisopropyl) ether	120	U	120	12	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
2,4,5-Trichlorophenol	180	U	180	81	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
2,4,6-Trichlorophenol	180	U	180	75	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
2,4-Dichlorophenol	180	U	180	52	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
2,4-Dimethylphenol	180	U	180	47	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
2,4-Dinitrophenol	390	U	390	170	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
2,4-Dinitrotoluene	230	U	230	73	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
2,6-Dinitrotoluene	230	U	230	66	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
2-Chloronaphthalene	59	U	59	16	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
2-Chlorophenol	59	U	59	12	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
2-Methylnaphthalene	**25**		18	2.3	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
2-Methylphenol	230	U	230	36	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
2-Nitroaniline	230	U	230	47	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
2-Nitrophenol	59	U	59	15	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
3,3'-Dichlorobenzidine	120	U	120	50	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
3-Nitroaniline	230	U	230	57	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
4,6-Dinitro-2-methylphenol	390	U	390	94	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
4-Bromophenyl phenyl ether	59	U	59	16	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
4-Chloro-3-methylphenol	180	U	180	53	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
4-Chloroaniline	180	U	180	35	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
4-Chlorophenyl phenyl ether	59	U	59	16	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
4-Nitroaniline	230	U	230	70	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
4-Nitrophenol	390	U	390	110	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Acenaphthene	**17**	**J**	18	3.4	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Acenaphthylene	18	U	18	4.7	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Acetophenone	120	U	120	13	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Anthracene	**54**		18	2.8	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Atrazine	230	U	230	42	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Benzaldehyde	120	U	120	27	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Benzo[a]anthracene	**120**		18	4.0	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Benzo[a]pyrene	**120**		18	11	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Benzo[b]fluoranthene	**230**		18	7.6	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Benzo[g,h,i]perylene	**130**		18	8.3	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Benzo[k]fluoranthene	**62**		18	8.1	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Bis(2-chloroethoxy)methane	120	U	120	14	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Bis(2-chloroethyl)ether	120	U	120	14	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Bis(2-ethylhexyl) phthalate	82	U	82	60	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Butyl benzyl phthalate	82	U	82	26	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Caprolactam	390	U	390	88	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Carbazole	**25**	**J**	59	22	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Chrysene	**140**		18	1.7	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Dibenz(a,h)anthracene	**39**		18	8.1	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB10-4-6

Date Collected: 03/06/19 14:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-22

Matrix: Solid
Percent Solids: 84.9

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	**21**	**J**	59	15	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Diethyl phthalate	82	U	82	36	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Dimethyl phthalate	82	U	82	16	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Di-n-butyl phthalate	82	U	82	26	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Di-n-octyl phthalate	82	U	82	33	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Fluoranthene	**220**		18	5.2	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Fluorene	**20**		18	3.2	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Hexachlorobenzene	18	U	18	3.3	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Hexachlorobutadiene	59	U	59	14	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Hexachlorocyclopentadiene	390	U	390	73	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Hexachloroethane	59	U	59	11	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Indeno[1,2,3-cd]pyrene	**100**		18	8.6	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Isophorone	59	U	59	14	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Naphthalene	**23**		18	2.8	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Nitrobenzene	120	U	120	15	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
N-Nitrosodi-n-propylamine	59	U	59	13	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
N-Nitrosodiphenylamine	59	U	59	14	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Pentachlorophenol	180	U	180	68	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Phenol	**45**	**J**	59	9.4	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Phenanthrene	**210**		18	2.6	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
Pyrene	**180**		18	2.5	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1
3 & 4 Methylphenol	470	U	470	34	ug/Kg	☼	03/16/19 10:19	03/19/19 15:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*69*		*32 - 120*	*03/16/19 10:19*	*03/19/19 15:49*	*1*
2-Fluorophenol (Surr)	*70*		*29 - 120*	*03/16/19 10:19*	*03/19/19 15:49*	*1*
2,4,6-Tribromophenol (Surr)	*57*		*10 - 120*	*03/16/19 10:19*	*03/19/19 15:49*	*1*
Nitrobenzene-d5 (Surr)	*60*		*30 - 120*	*03/16/19 10:19*	*03/19/19 15:49*	*1*
Phenol-d5 (Surr)	*69*		*29 - 120*	*03/16/19 10:19*	*03/19/19 15:49*	*1*
Terphenyl-d14 (Surr)	*88*		*41 - 120*	*03/16/19 10:19*	*03/19/19 15:49*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.7**		0.97	0.31	mg/Kg	☼	03/11/19 14:00	03/12/19 18:25	1
Lead	**4.0**		0.97	0.27	mg/Kg	☼	03/11/19 14:00	03/12/19 18:25	1
Selenium	**0.63**	**J**	1.5	0.46	mg/Kg	☼	03/11/19 14:00	03/12/19 18:25	1
Thallium	0.97	U	0.97	0.39	mg/Kg	☼	03/11/19 14:00	03/12/19 18:25	1
Antimony	0.97	U	0.97	0.35	mg/Kg	☼	03/11/19 14:00	03/12/19 18:25	1
Barium	**4.9**	**J**	19	0.35	mg/Kg	☼	03/11/19 14:00	03/12/19 18:25	1
Beryllium	0.49	U	0.49	0.053	mg/Kg	☼	03/11/19 14:00	03/12/19 18:25	1
Cadmium	**0.078**	**J**	0.19	0.047	mg/Kg	☼	03/11/19 14:00	03/12/19 18:25	1
Chromium	**44**		0.49	0.15	mg/Kg	☼	03/11/19 14:00	03/12/19 18:25	1
Cobalt	**1.6**		0.97	0.19	mg/Kg	☼	03/11/19 14:00	03/12/19 18:25	1
Copper	**3.8**		2.4	0.23	mg/Kg	☼	03/11/19 14:00	03/12/19 18:25	1
Nickel	**2.8**	**J**	3.9	0.23	mg/Kg	☼	03/11/19 14:00	03/12/19 18:25	1
Silver	**0.19**	**J B**	0.49	0.079	mg/Kg	☼	03/11/19 14:00	03/12/19 18:25	1
Magnesium	**14000**		490	45	mg/Kg	☼	03/11/19 14:00	03/12/19 18:25	1
Tin	9.7	U	9.7	3.5	mg/Kg	☼	03/11/19 14:00	03/12/19 18:25	1
Manganese	**550**	**B**	1.5	0.30	mg/Kg	☼	03/11/19 14:00	03/12/19 18:25	1
Vanadium	**14**		4.9	0.80	mg/Kg	☼	03/11/19 14:00	03/12/19 18:25	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB10-4-6

Date Collected: 03/06/19 14:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-22

Matrix: Solid
Percent Solids: 84.9

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	17		4.9	1.3	mg/Kg	☼	03/11/19 14:00	03/12/19 18:25	1
Sodium	77	J	490	61	mg/Kg	☼	03/11/19 14:00	03/12/19 18:25	1
Iron	7100		9.7	6.8	mg/Kg	☼	03/11/19 14:00	03/12/19 18:25	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.12	U	0.12	0.022	mg/Kg	☼	03/11/19 16:00	03/13/19 11:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.59	U	0.59	0.22	mg/Kg	☼	03/12/19 13:31	03/12/19 14:45	1
Sulfide	36	U	36	17	mg/Kg	☼	03/12/19 08:22	03/12/19 13:24	1
Percent Solids	84.9		0.1	0.1	%			03/11/19 16:53	1
Percent Moisture	15.1		0.1	0.1	%			03/11/19 16:53	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB08-0-2

Date Collected: 03/07/19 08:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-23

Matrix: Solid
Percent Solids: 89.3

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	340	U *	340	19	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
1,1,2,2-Tetrachloroethane	340	U	340	19	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	340	U	340	90	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
1,1,2-Trichloroethane	340	U	340	18	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
1,1-Dichloroethane	340	U	340	12	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
1,1-Dichloroethene	340	U	340	20	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
1,2,4-Trichlorobenzene	340	U	340	180	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
1,2-Dibromo-3-Chloropropane	670	U *	670	120	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Ethylene Dibromide	340	U *	340	110	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
1,2-Dichlorobenzene	340	U	340	28	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
1,2-Dichloroethane	340	U	340	16	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
1,2-Dichloropropane	340	U	340	11	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
1,3-Dichlorobenzene	340	U	340	28	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
1,4-Dichlorobenzene	340	U	340	23	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
2-Butanone (MEK)	1300	U	1300	210	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
2-Hexanone	1300	U	1300	350	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
4-Methyl-2-pentanone (MIBK)	1300	U	1300	320	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Acetone	1300	U	1300	330	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Benzene	**15**	**J**	340	11	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Dichlorobromomethane	340	U	340	38	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Bromoform	340	U *	340	140	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Bromomethane	340	U	340	220	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Carbon disulfide	340	U	340	150	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Carbon tetrachloride	340	U *	340	24	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Chlorobenzene	340	U	340	47	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Chloroethane	340	U	340	200	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Chloroform	340	U	340	12	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Chloromethane	340	U	340	89	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
cis-1,2-Dichloroethene	340	U	340	12	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
cis-1,3-Dichloropropene	340	U *	340	50	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Cyclohexane	670	U	670	220	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Chlorodibromomethane	340	U *	340	160	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Dichlorodifluoromethane	340	U	340	71	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Ethylbenzene	**19**	**J**	340	16	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Isopropylbenzene	340	U	340	51	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Methyl acetate	**900**	**J**	1700	710	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Methyl tert-butyl ether	340	U	340	50	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Methylcyclohexane	670	U	670	89	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Methylene Chloride	670	U	670	520	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Styrene	340	U	340	16	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Tetrachloroethene	**51**	**J**	340	20	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Toluene	340	U	340	61	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
trans-1,2-Dichloroethene	340	U	340	20	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
trans-1,3-Dichloropropene	340	U *	340	140	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Trichloroethene	340	U	340	18	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Trichlorofluoromethane	340	U	340	62	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Vinyl chloride	340	U	340	13	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Xylenes, Total	670	U	670	31	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1
Naphthalene	340	U *	340	160	ug/Kg	☼	03/13/19 13:53	03/15/19 18:52	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB08-0-2

Date Collected: 03/07/19 08:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-23

Matrix: Solid
Percent Solids: 89.3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*81*		*49 - 147*	*03/13/19 13:53*	*03/15/19 18:52*	*1*
Dibromofluoromethane (Surr)	*79*		*49 - 138*	*03/13/19 13:53*	*03/15/19 18:52*	*1*
4-Bromofluorobenzene (Surr)	*86*		*48 - 151*	*03/13/19 13:53*	*03/15/19 18:52*	*1*
1,2-Dichloroethane-d4 (Surr)	*80*		*53 - 155*	*03/13/19 13:53*	*03/15/19 18:52*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	140	U	140	48	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
bis (2-chloroisopropyl) ether	280	U	280	28	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
2,4,5-Trichlorophenol	420	U	420	200	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
2,4,6-Trichlorophenol	420	U	420	180	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
2,4-Dichlorophenol	420	U	420	120	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
2,4-Dimethylphenol	420	U	420	110	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
2,4-Dinitrophenol	930	U	930	400	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
2,4-Dinitrotoluene	570	U	570	180	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
2,6-Dinitrotoluene	570	U	570	160	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
2-Chloronaphthalene	140	U	140	40	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
2-Chlorophenol	140	U	140	28	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
2-Methylnaphthalene	**64**		42	5.5	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
2-Methylphenol	570	U	570	88	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
2-Nitroaniline	570	U	570	110	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
2-Nitrophenol	140	U	140	37	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
3,3'-Dichlorobenzidine	280	U	280	120	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
3-Nitroaniline	570	U	570	140	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
4,6-Dinitro-2-methylphenol	930	U	930	230	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
4-Bromophenyl phenyl ether	140	U	140	40	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
4-Chloro-3-methylphenol	420	U	420	130	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
4-Chloroaniline	420	U	420	85	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
4-Chlorophenyl phenyl ether	140	U	140	40	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
4-Nitroaniline	570	U	570	170	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
4-Nitrophenol	930	U	930	270	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Acenaphthene	**13**	**J**	42	8.1	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Acenaphthylene	**17**	**J**	42	11	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Acetophenone	**54**	**J**	280	31	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Anthracene	**49**		42	6.8	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Atrazine	570	U	570	100	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Benzaldehyde	**69**	**J**	280	65	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Benzo[a]anthracene	**160**		42	9.7	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Benzo[a]pyrene	**200**		42	26	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Benzo[b]fluoranthene	**340**		42	18	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Benzo[g,h,i]perylene	**170**		42	20	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Benzo[k]fluoranthene	**89**		42	20	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Bis(2-chloroethoxy)methane	280	U	280	34	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Bis(2-chloroethyl)ether	280	U	280	34	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Bis(2-ethylhexyl) phthalate	200	U	200	140	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Butyl benzyl phthalate	200	U	200	62	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Caprolactam	930	U	930	210	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Carbazole	140	U	140	54	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Chrysene	**220**		42	4.2	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Dibenz(a,h)anthracene	**44**		42	20	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB08-0-2

Date Collected: 03/07/19 08:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-23

Matrix: Solid
Percent Solids: 89.3

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	**39**	**J**	140	37	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Diethyl phthalate	200	U	200	88	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Dimethyl phthalate	**70**	**J**	200	40	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Di-n-butyl phthalate	200	U	200	62	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Di-n-octyl phthalate	200	U	200	79	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Fluoranthene	**370**		42	13	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Fluorene	42	U	42	7.8	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Hexachlorobenzene	42	U	42	8.1	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Hexachlorobutadiene	140	U	140	34	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Hexachlorocyclopentadiene	930	U	930	180	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Hexachloroethane	140	U	140	25	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Indeno[1,2,3-cd]pyrene	**140**		42	21	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Isophorone	140	U	140	34	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Naphthalene	**82**		42	6.8	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Nitrobenzene	280	U	280	37	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
N-Nitrosodi-n-propylamine	140	U	140	31	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
N-Nitrosodiphenylamine	140	U	140	34	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Pentachlorophenol	420	U	420	160	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Phenol	**23**	**J**	140	23	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Phenanthrene	**280**		42	6.3	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
Pyrene	**310**		42	6.1	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5
3 & 4 Methylphenol	1100	U	1100	82	ug/Kg	☼	03/16/19 10:19	03/19/19 17:50	2.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*89*		*32 - 120*	*03/16/19 10:19*	*03/19/19 17:50*	*2.5*
2-Fluorophenol (Surr)	*81*		*29 - 120*	*03/16/19 10:19*	*03/19/19 17:50*	*2.5*
2,4,6-Tribromophenol (Surr)	*56*		*10 - 120*	*03/16/19 10:19*	*03/19/19 17:50*	*2.5*
Nitrobenzene-d5 (Surr)	*74*		*30 - 120*	*03/16/19 10:19*	*03/19/19 17:50*	*2.5*
Phenol-d5 (Surr)	*84*		*29 - 120*	*03/16/19 10:19*	*03/19/19 17:50*	*2.5*
Terphenyl-d14 (Surr)	*91*		*41 - 120*	*03/16/19 10:19*	*03/19/19 17:50*	*2.5*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	17	U	17	5.5	mg/Kg	☼	03/11/19 14:00	03/13/19 13:35	20
Lead	**170**		4.3	1.2	mg/Kg	☼	03/11/19 14:00	03/13/19 13:31	5
Selenium	26	U	26	8.1	mg/Kg	☼	03/11/19 14:00	03/13/19 13:35	20
Thallium	17	U	17	6.9	mg/Kg	☼	03/11/19 14:00	03/13/19 13:35	20
Antimony	**2.2**	**J**	4.3	1.6	mg/Kg	☼	03/11/19 14:00	03/13/19 13:31	5
Barium	**110**		17	0.31	mg/Kg	☼	03/11/19 14:00	03/12/19 18:29	1
Beryllium	**0.88**		0.43	0.047	mg/Kg	☼	03/11/19 14:00	03/12/19 18:29	1
Cadmium	**1.5**		0.87	0.21	mg/Kg	☼	03/11/19 14:00	03/13/19 13:31	5
Chromium	**640**		0.43	0.13	mg/Kg	☼	03/11/19 14:00	03/12/19 18:29	1
Cobalt	**6.1**		0.87	0.17	mg/Kg	☼	03/11/19 14:00	03/12/19 18:29	1
Copper	**140**		11	1.0	mg/Kg	☼	03/11/19 14:00	03/13/19 13:31	5
Nickel	**72**		17	1.0	mg/Kg	☼	03/11/19 14:00	03/13/19 13:31	5
Silver	**2.2**	**B**	0.43	0.070	mg/Kg	☼	03/11/19 14:00	03/12/19 18:29	1
Magnesium	**21000**		430	40	mg/Kg	☼	03/11/19 14:00	03/12/19 18:29	1
Tin	**15**		8.7	3.2	mg/Kg	☼	03/11/19 14:00	03/12/19 18:29	1
Manganese	**11000**	**B**	26	5.4	mg/Kg	☼	03/11/19 14:00	03/13/19 13:35	20
Vanadium	**200**		22	3.6	mg/Kg	☼	03/11/19 14:00	03/13/19 13:31	5

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB08-0-2

Date Collected: 03/07/19 08:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-23

Matrix: Solid
Percent Solids: 89.3

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	330		4.3	1.2	mg/Kg	☼	03/11/19 14:00	03/12/19 18:29	1
Sodium	260	J	430	54	mg/Kg	☼	03/11/19 14:00	03/12/19 18:29	1
Iron	110000		43	30	mg/Kg	☼	03/11/19 14:00	03/13/19 13:31	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.080	J	0.11	0.020	mg/Kg	☼	03/11/19 16:00	03/13/19 11:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.57		0.54	0.20	mg/Kg	☼	03/12/19 13:31	03/12/19 14:47	1
Sulfide	90		33	16	mg/Kg	☼	03/12/19 08:22	03/12/19 13:24	1
Percent Solids	89.3		0.1	0.1	%			03/11/19 16:53	1
Percent Moisture	10.7		0.1	0.1	%			03/11/19 16:53	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB08-2-4

Date Collected: 03/07/19 08:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-24

Matrix: Solid
Percent Solids: 90.9

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	280	U *	280	16	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
1,1,2,2-Tetrachloroethane	280	U	280	16	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	280	U	280	75	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
1,1,2-Trichloroethane	280	U	280	15	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
1,1-Dichloroethane	280	U	280	10	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
1,1-Dichloroethene	280	U	280	17	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
1,2,4-Trichlorobenzene	280	U	280	150	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
1,2-Dibromo-3-Chloropropane	560	U *	560	99	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Ethylene Dibromide	280	U *	280	89	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
1,2-Dichlorobenzene	280	U	280	24	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
1,2-Dichloroethane	280	U	280	13	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
1,2-Dichloropropane	280	U	280	9.0	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
1,3-Dichlorobenzene	280	U	280	24	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
1,4-Dichlorobenzene	280	U	280	19	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
2-Butanone (MEK)	1100	U	1100	180	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
2-Hexanone	1100	U	1100	300	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
4-Methyl-2-pentanone (MIBK)	1100	U	1100	270	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Acetone	1100	U	1100	270	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Benzene	280	U	280	9.0	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Dichlorobromomethane	280	U	280	31	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Bromoform	280	U *	280	120	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Bromomethane	280	U	280	190	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Carbon disulfide	280	U	280	120	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Carbon tetrachloride	280	U *	280	20	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Chlorobenzene	280	U	280	39	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Chloroethane	280	U	280	170	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Chloroform	280	U	280	10	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Chloromethane	280	U	280	74	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
cis-1,2-Dichloroethene	280	U	280	10	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
cis-1,3-Dichloropropene	280	U *	280	42	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Cyclohexane	560	U	560	180	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Chlorodibromomethane	280	U *	280	130	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Dichlorodifluoromethane	280	U	280	59	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Ethylbenzene	280	U	280	13	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Isopropylbenzene	280	U	280	43	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Methyl acetate	1400	U	1400	590	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Methyl tert-butyl ether	280	U	280	42	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Methylcyclohexane	560	U	560	74	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Methylene Chloride	560	U	560	430	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Styrene	280	U	280	13	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Tetrachloroethene	280	U	280	17	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Toluene	280	U	280	51	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
trans-1,2-Dichloroethene	280	U	280	17	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
trans-1,3-Dichloropropene	280	U *	280	120	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Trichloroethene	280	U	280	15	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Trichlorofluoromethane	280	U	280	52	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Vinyl chloride	280	U	280	11	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Xylenes, Total	560	U	560	26	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1
Naphthalene	280	U *	280	130	ug/Kg	☼	03/13/19 13:53	03/15/19 19:14	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB08-2-4

Date Collected: 03/07/19 08:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-24

Matrix: Solid
Percent Solids: 90.9

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*89*		*49 - 147*	*03/13/19 13:53*	*03/15/19 19:14*	*1*
Dibromofluoromethane (Surr)	*81*		*49 - 138*	*03/13/19 13:53*	*03/15/19 19:14*	*1*
4-Bromofluorobenzene (Surr)	*90*		*48 - 151*	*03/13/19 13:53*	*03/15/19 19:14*	*1*
1,2-Dichloroethane-d4 (Surr)	*85*		*53 - 155*	*03/13/19 13:53*	*03/15/19 19:14*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	55	U	55	19	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
bis (2-chloroisopropyl) ether	110	U	110	11	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
2,4,5-Trichlorophenol	160	U	160	75	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
2,4,6-Trichlorophenol	160	U	160	70	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
2,4-Dichlorophenol	160	U	160	48	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
2,4-Dimethylphenol	160	U	160	44	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
2,4-Dinitrophenol	360	U	360	160	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
2,4-Dinitrotoluene	220	U	220	68	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
2,6-Dinitrotoluene	220	U	220	61	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
2-Chloronaphthalene	55	U	55	15	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
2-Chlorophenol	55	U	55	11	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
2-Methylnaphthalene	**46**		16	2.1	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
2-Methylphenol	220	U	220	34	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
2-Nitroaniline	220	U	220	44	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
2-Nitrophenol	55	U	55	14	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
3,3'-Dichlorobenzidine	110	U	110	47	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
3-Nitroaniline	220	U	220	53	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
4,6-Dinitro-2-methylphenol	360	U	360	87	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
4-Bromophenyl phenyl ether	55	U	55	15	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
4-Chloro-3-methylphenol	160	U	160	49	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
4-Chloroaniline	160	U	160	33	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
4-Chlorophenyl phenyl ether	55	U	55	15	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
4-Nitroaniline	220	U	220	66	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
4-Nitrophenol	360	U	360	100	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Acenaphthene	**83**		16	3.1	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Acenaphthylene	16	U	16	4.4	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Acetophenone	**16**	**J**	110	12	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Anthracene	**210**		16	2.6	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Atrazine	220	U	220	39	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Benzaldehyde	110	U	110	25	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Benzo[a]anthracene	**440**		16	3.7	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Benzo[a]pyrene	**470**		16	10	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Benzo[b]fluoranthene	**690**		16	7.1	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Benzo[g,h,i]perylene	**400**		16	7.8	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Benzo[k]fluoranthene	**260**		16	7.6	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Bis(2-chloroethoxy)methane	110	U	110	13	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Bis(2-chloroethyl)ether	110	U	110	13	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Bis(2-ethylhexyl) phthalate	76	U	76	56	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Butyl benzyl phthalate	76	U	76	24	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Caprolactam	360	U	360	82	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Carbazole	**95**		55	21	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Chrysene	**550**		16	1.6	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Dibenz(a,h)anthracene	**110**		16	7.6	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1

Client Sample ID: SB08-2-4

Date Collected: 03/07/19 08:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-24

Matrix: Solid
Percent Solids: 90.9

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	**59**		55	14	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Diethyl phthalate	76	U	76	34	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Dimethyl phthalate	76	U	76	15	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Di-n-butyl phthalate	76	U	76	24	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Di-n-octyl phthalate	76	U	76	31	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Fluoranthene	**990**		16	4.9	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Fluorene	**78**		16	3.0	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Hexachlorobenzene	16	U	16	3.1	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Hexachlorobutadiene	55	U	55	13	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Hexachlorocyclopentadiene	360	U	360	68	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Hexachloroethane	55	U	55	9.8	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Indeno[1,2,3-cd]pyrene	**330**		16	8.0	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Isophorone	55	U	55	13	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Naphthalene	**100**		16	2.6	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Nitrobenzene	110	U	110	14	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
N-Nitrosodi-n-propylamine	55	U	55	12	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
N-Nitrosodiphenylamine	55	U	55	13	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Pentachlorophenol	160	U	160	63	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Phenol	55	U	55	8.7	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Phenanthrene	**720**		16	2.4	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
Pyrene	**810**		16	2.3	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1
3 & 4 Methylphenol	440	U	440	32	ug/Kg	☼	03/16/19 10:19	03/19/19 15:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*77*		*32 - 120*	*03/16/19 10:19*	*03/19/19 15:24*	*1*
2-Fluorophenol (Surr)	*77*		*29 - 120*	*03/16/19 10:19*	*03/19/19 15:24*	*1*
2,4,6-Tribromophenol (Surr)	*52*		*10 - 120*	*03/16/19 10:19*	*03/19/19 15:24*	*1*
Nitrobenzene-d5 (Surr)	*63*		*30 - 120*	*03/16/19 10:19*	*03/19/19 15:24*	*1*
Phenol-d5 (Surr)	*75*		*29 - 120*	*03/16/19 10:19*	*03/19/19 15:24*	*1*
Terphenyl-d14 (Surr)	*84*		*41 - 120*	*03/16/19 10:19*	*03/19/19 15:24*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.9**	**J**	8.8	2.8	mg/Kg	☼	03/11/19 14:00	03/15/19 18:37	10
Lead	**32**		1.8	0.50	mg/Kg	☼	03/11/19 14:00	03/14/19 18:02	2
Selenium	13	U	13	4.1	mg/Kg	☼	03/11/19 14:00	03/15/19 18:37	10
Thallium	**4.8**	**J**	8.8	3.5	mg/Kg	☼	03/11/19 14:00	03/15/19 18:37	10
Antimony	**0.79**	**J**	1.8	0.63	mg/Kg	☼	03/11/19 14:00	03/14/19 18:02	2
Barium	**31**		18	0.32	mg/Kg	☼	03/11/19 14:00	03/12/19 22:01	1
Beryllium	**0.34**	**J**	0.44	0.048	mg/Kg	☼	03/11/19 14:00	03/12/19 22:01	1
Cadmium	**0.50**		0.35	0.084	mg/Kg	☼	03/11/19 14:00	03/14/19 18:02	2
Chromium	**320**		4.4	1.3	mg/Kg	☼	03/11/19 14:00	03/15/19 18:37	10
Cobalt	**3.0**		0.88	0.18	mg/Kg	☼	03/11/19 14:00	03/12/19 22:01	1
Copper	**58**		4.4	0.42	mg/Kg	☼	03/11/19 14:00	03/14/19 18:02	2
Nickel	**34**		7.0	0.41	mg/Kg	☼	03/11/19 14:00	03/14/19 18:02	2
Silver	0.44	U	0.44	0.071	mg/Kg	☼	03/11/19 14:00	03/12/19 22:01	1
Magnesium	**7000**		440	41	mg/Kg	☼	03/11/19 14:00	03/12/19 22:01	1
Tin	**10**		8.8	3.2	mg/Kg	☼	03/11/19 14:00	03/12/19 22:01	1
Manganese	**6100**		13	2.7	mg/Kg	☼	03/11/19 14:00	03/15/19 18:37	10
Vanadium	**42**		8.8	1.4	mg/Kg	☼	03/11/19 14:00	03/14/19 18:02	2

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB08-2-4

Date Collected: 03/07/19 08:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-24

Matrix: Solid
Percent Solids: 90.9

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	100		4.4	1.2	mg/Kg	☼	03/11/19 14:00	03/12/19 22:01	1
Sodium	73	J	440	55	mg/Kg	☼	03/11/19 14:00	03/12/19 22:01	1
Iron	50000		88	61	mg/Kg	☼	03/11/19 14:00	03/15/19 18:37	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.038	J	0.11	0.019	mg/Kg	☼	03/11/19 16:00	03/13/19 12:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.22	J	0.57	0.22	mg/Kg	☼	03/12/19 13:31	03/12/19 14:49	1
Sulfide	19	J	33	16	mg/Kg	☼	03/12/19 08:22	03/12/19 13:24	1
Percent Solids	90.9		0.1	0.1	%			03/11/19 16:51	1
Percent Moisture	9.1		0.1	0.1	%			03/11/19 16:51	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: IMW-02-00001R

Lab Sample ID: 240-109180-25

Date Collected: 03/07/19 16:30
Matrix: Water
Date Received: 03/09/19 09:50

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	10	U	10	7.5	ug/L		03/11/19 14:00	03/12/19 17:46	1
Arsenic	**12**		10	4.1	ug/L		03/11/19 14:00	03/12/19 17:46	1
Barium	**32**	**J**	200	1.3	ug/L		03/11/19 14:00	03/12/19 17:46	1
Beryllium	5.0	U	5.0	0.60	ug/L		03/11/19 14:00	03/12/19 17:46	1
Cadmium	**0.41**	**J**	2.0	0.20	ug/L		03/11/19 14:00	03/12/19 17:46	1
Cobalt	**0.93**	**J**	10	0.75	ug/L		03/11/19 14:00	03/12/19 17:46	1
Chromium	**20**		5.0	0.63	ug/L		03/11/19 14:00	03/12/19 17:46	1
Copper	**17**	**J**	25	3.5	ug/L		03/11/19 14:00	03/12/19 17:46	1
Magnesium	**18000**		5000	780	ug/L		03/11/19 14:00	03/12/19 17:46	1
Manganese	**440**		15	2.1	ug/L		03/11/19 14:00	03/12/19 17:46	1
Nickel	**6.8**	**J**	40	2.2	ug/L		03/11/19 14:00	03/12/19 17:46	1
Lead	**23**		5.0	2.8	ug/L		03/11/19 14:00	03/12/19 17:46	1
Selenium	15	U	15	6.0	ug/L		03/11/19 14:00	03/12/19 17:46	1
Tin	100	U	100	5.3	ug/L		03/11/19 14:00	03/12/19 17:46	1
Thallium	**4.0**	**J**	10	2.7	ug/L		03/11/19 14:00	03/12/19 17:46	1
Vanadium	**12**	**J**	50	5.6	ug/L		03/11/19 14:00	03/12/19 17:46	1
Zinc	**54**		50	9.7	ug/L		03/11/19 14:00	03/12/19 17:46	1
Silver	5.0	U	5.0	0.62	ug/L		03/11/19 14:00	03/12/19 17:46	1
Sodium	**14000**		5000	560	ug/L		03/11/19 14:00	03/12/19 17:46	1
Iron	**5400**		100	26	ug/L		03/11/19 14:00	03/12/19 17:46	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.13	ug/L		03/11/19 12:00	03/12/19 14:19	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: 9584-030719-0003

Lab Sample ID: 240-109180-26

Date Collected: 03/07/19 00:03
Matrix: Water
Date Received: 03/09/19 09:50

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	10	U	10	7.5	ug/L		03/11/19 14:00	03/12/19 18:27	1
Arsenic	**7.1**	**J**	10	4.1	ug/L		03/11/19 14:00	03/12/19 18:27	1
Barium	**16**	**J**	200	1.3	ug/L		03/11/19 14:00	03/12/19 18:27	1
Beryllium	5.0	U	5.0	0.60	ug/L		03/11/19 14:00	03/12/19 18:27	1
Cadmium	2.0	U	2.0	0.20	ug/L		03/11/19 14:00	03/12/19 18:27	1
Cobalt	10	U	10	0.75	ug/L		03/11/19 14:00	03/12/19 18:27	1
Chromium	**0.96**	**J**	5.0	0.63	ug/L		03/11/19 14:00	03/12/19 18:27	1
Copper	25	U	25	3.5	ug/L		03/11/19 14:00	03/12/19 18:27	1
Magnesium	**14000**		5000	780	ug/L		03/11/19 14:00	03/12/19 18:27	1
Manganese	**260**		15	2.1	ug/L		03/11/19 14:00	03/12/19 18:27	1
Nickel	40	U	40	2.2	ug/L		03/11/19 14:00	03/12/19 18:27	1
Lead	5.0	U	5.0	2.8	ug/L		03/11/19 14:00	03/12/19 18:27	1
Selenium	15	U	15	6.0	ug/L		03/11/19 14:00	03/12/19 18:27	1
Tin	100	U	100	5.3	ug/L		03/11/19 14:00	03/12/19 18:27	1
Thallium	10	U	10	2.7	ug/L		03/11/19 14:00	03/12/19 18:27	1
Vanadium	**5.6**	**J**	50	5.6	ug/L		03/11/19 14:00	03/12/19 18:27	1
Zinc	50	U	50	9.7	ug/L		03/11/19 14:00	03/12/19 18:27	1
Silver	5.0	U	5.0	0.62	ug/L		03/11/19 14:00	03/12/19 18:27	1
Sodium	**13000**		5000	560	ug/L		03/11/19 14:00	03/12/19 18:27	1
Iron	**630**		100	26	ug/L		03/11/19 14:00	03/12/19 18:27	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.13	ug/L		03/11/19 12:00	03/12/19 14:34	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: IFW-02-00022R

Lab Sample ID: 240-109180-27

Date Collected: 03/08/19 10:00
Matrix: Water
Date Received: 03/09/19 09:50

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			03/15/19 20:08	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			03/15/19 20:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			03/15/19 20:08	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			03/15/19 20:08	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			03/15/19 20:08	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			03/15/19 20:08	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			03/15/19 20:08	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.91	ug/L			03/15/19 20:08	1
Ethylene Dibromide	1.0	U	1.0	0.12	ug/L			03/15/19 20:08	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			03/15/19 20:08	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/15/19 20:08	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			03/15/19 20:08	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			03/15/19 20:08	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			03/15/19 20:08	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			03/15/19 20:08	1
2-Hexanone	10	U	10	0.54	ug/L			03/15/19 20:08	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			03/15/19 20:08	1
Acetone	10	U	10	5.4	ug/L			03/15/19 20:08	1
Benzene	**3.6**		1.0	0.13	ug/L			03/15/19 20:08	1
Dichlorobromomethane	1.0	U	1.0	0.17	ug/L			03/15/19 20:08	1
Bromoform	1.0	U	1.0	0.76	ug/L			03/15/19 20:08	1
Bromomethane	1.0	U	1.0	0.42	ug/L			03/15/19 20:08	1
Carbon disulfide	1.0	U	1.0	0.28	ug/L			03/15/19 20:08	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			03/15/19 20:08	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/15/19 20:08	1
Chloroethane	1.0	U	1.0	0.83	ug/L			03/15/19 20:08	1
Chloroform	1.0	U	1.0	0.13	ug/L			03/15/19 20:08	1
Chloromethane	1.0	U	1.0	0.20	ug/L			03/15/19 20:08	1
cis-1,2-Dichloroethene	**0.17**	**J**	1.0	0.16	ug/L			03/15/19 20:08	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			03/15/19 20:08	1
Cyclohexane	**1.7**		1.0	0.24	ug/L			03/15/19 20:08	1
Chlorodibromomethane	1.0	U	1.0	0.39	ug/L			03/15/19 20:08	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			03/15/19 20:08	1
Ethylbenzene	**0.13**	**J**	1.0	0.11	ug/L			03/15/19 20:08	1
Isopropylbenzene	**10**		1.0	0.090	ug/L			03/15/19 20:08	1
Methyl acetate	10	U	10	1.7	ug/L			03/15/19 20:08	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			03/15/19 20:08	1
Methylcyclohexane	**3.3**		1.0	0.33	ug/L			03/15/19 20:08	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			03/15/19 20:08	1
Styrene	1.0	U	1.0	0.10	ug/L			03/15/19 20:08	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			03/15/19 20:08	1
Toluene	1.0	U	1.0	0.14	ug/L			03/15/19 20:08	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			03/15/19 20:08	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			03/15/19 20:08	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			03/15/19 20:08	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			03/15/19 20:08	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			03/15/19 20:08	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			03/15/19 20:08	1
Naphthalene	1.0	U	1.0	0.32	ug/L			03/15/19 20:08	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: IFW-02-00022R

Lab Sample ID: 240-109180-27

Date Collected: 03/08/19 10:00
Date Received: 03/09/19 09:50

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	92		70 - 123		03/15/19 20:08	1
Dibromofluoromethane (Surr)	98		75 - 128		03/15/19 20:08	1
4-Bromofluorobenzene (Surr)	95		59 - 120		03/15/19 20:08	1
1,2-Dichloroethane-d4 (Surr)	93		70 - 121		03/15/19 20:08	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: 9584-030819-0004

Date Collected: 03/08/19 00:04
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-28

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			03/15/19 20:30	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			03/15/19 20:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			03/15/19 20:30	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			03/15/19 20:30	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			03/15/19 20:30	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			03/15/19 20:30	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			03/15/19 20:30	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.91	ug/L			03/15/19 20:30	1
Ethylene Dibromide	1.0	U	1.0	0.12	ug/L			03/15/19 20:30	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			03/15/19 20:30	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/15/19 20:30	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			03/15/19 20:30	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			03/15/19 20:30	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			03/15/19 20:30	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			03/15/19 20:30	1
2-Hexanone	10	U	10	0.54	ug/L			03/15/19 20:30	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			03/15/19 20:30	1
Acetone	10	U	10	5.4	ug/L			03/15/19 20:30	1
Benzene	**3.4**		1.0	0.13	ug/L			03/15/19 20:30	1
Dichlorobromomethane	1.0	U	1.0	0.17	ug/L			03/15/19 20:30	1
Bromoform	1.0	U	1.0	0.76	ug/L			03/15/19 20:30	1
Bromomethane	1.0	U	1.0	0.42	ug/L			03/15/19 20:30	1
Carbon disulfide	1.0	U	1.0	0.28	ug/L			03/15/19 20:30	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			03/15/19 20:30	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/15/19 20:30	1
Chloroethane	1.0	U	1.0	0.83	ug/L			03/15/19 20:30	1
Chloroform	1.0	U	1.0	0.13	ug/L			03/15/19 20:30	1
Chloromethane	1.0	U	1.0	0.20	ug/L			03/15/19 20:30	1
cis-1,2-Dichloroethene	**0.16**	**J**	1.0	0.16	ug/L			03/15/19 20:30	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			03/15/19 20:30	1
Cyclohexane	**1.8**		1.0	0.24	ug/L			03/15/19 20:30	1
Chlorodibromomethane	1.0	U	1.0	0.39	ug/L			03/15/19 20:30	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			03/15/19 20:30	1
Ethylbenzene	**0.13**	**J**	1.0	0.11	ug/L			03/15/19 20:30	1
Isopropylbenzene	**10**		1.0	0.090	ug/L			03/15/19 20:30	1
Methyl acetate	10	U	10	1.7	ug/L			03/15/19 20:30	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			03/15/19 20:30	1
Methylcyclohexane	**3.6**		1.0	0.33	ug/L			03/15/19 20:30	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			03/15/19 20:30	1
Styrene	1.0	U	1.0	0.10	ug/L			03/15/19 20:30	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			03/15/19 20:30	1
Toluene	1.0	U	1.0	0.14	ug/L			03/15/19 20:30	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			03/15/19 20:30	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			03/15/19 20:30	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			03/15/19 20:30	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			03/15/19 20:30	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			03/15/19 20:30	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			03/15/19 20:30	1
Naphthalene	1.0	U	1.0	0.32	ug/L			03/15/19 20:30	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: 9584-030819-0004

Lab Sample ID: 240-109180-28

Date Collected: 03/08/19 00:04

Matrix: Water

Date Received: 03/09/19 09:50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	91		70 - 123		03/15/19 20:30	1
Dibromofluoromethane (Surr)	100		75 - 128		03/15/19 20:30	1
4-Bromofluorobenzene (Surr)	93		59 - 120		03/15/19 20:30	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 121		03/15/19 20:30	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: IMW-02-0004S

Lab Sample ID: 240-109180-29

Date Collected: 03/08/19 11:45
Date Received: 03/09/19 09:50

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			03/15/19 20:52	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			03/15/19 20:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			03/15/19 20:52	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			03/15/19 20:52	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			03/15/19 20:52	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			03/15/19 20:52	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			03/15/19 20:52	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.91	ug/L			03/15/19 20:52	1
Ethylene Dibromide	1.0	U	1.0	0.12	ug/L			03/15/19 20:52	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			03/15/19 20:52	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/15/19 20:52	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			03/15/19 20:52	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			03/15/19 20:52	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			03/15/19 20:52	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			03/15/19 20:52	1
2-Hexanone	10	U	10	0.54	ug/L			03/15/19 20:52	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			03/15/19 20:52	1
Acetone	10	U	10	5.4	ug/L			03/15/19 20:52	1
Benzene	1.0	U	1.0	0.13	ug/L			03/15/19 20:52	1
Dichlorobromomethane	1.0	U	1.0	0.17	ug/L			03/15/19 20:52	1
Bromoform	1.0	U	1.0	0.76	ug/L			03/15/19 20:52	1
Bromomethane	1.0	U	1.0	0.42	ug/L			03/15/19 20:52	1
Carbon disulfide	1.0	U	1.0	0.28	ug/L			03/15/19 20:52	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			03/15/19 20:52	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/15/19 20:52	1
Chloroethane	1.0	U	1.0	0.83	ug/L			03/15/19 20:52	1
Chloroform	1.0	U	1.0	0.13	ug/L			03/15/19 20:52	1
Chloromethane	1.0	U	1.0	0.20	ug/L			03/15/19 20:52	1
cis-1,2-Dichloroethene	**28**		1.0	0.16	ug/L			03/15/19 20:52	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			03/15/19 20:52	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			03/15/19 20:52	1
Chlorodibromomethane	1.0	U	1.0	0.39	ug/L			03/15/19 20:52	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			03/15/19 20:52	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			03/15/19 20:52	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			03/15/19 20:52	1
Methyl acetate	10	U	10	1.7	ug/L			03/15/19 20:52	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			03/15/19 20:52	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			03/15/19 20:52	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			03/15/19 20:52	1
Styrene	1.0	U	1.0	0.10	ug/L			03/15/19 20:52	1
Tetrachloroethene	**12**		1.0	0.15	ug/L			03/15/19 20:52	1
Toluene	1.0	U	1.0	0.14	ug/L			03/15/19 20:52	1
trans-1,2-Dichloroethene	**0.68**	**J**	1.0	0.19	ug/L			03/15/19 20:52	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			03/15/19 20:52	1
Trichloroethene	**4.1**		1.0	0.10	ug/L			03/15/19 20:52	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			03/15/19 20:52	1
Vinyl chloride	**0.31**	**J**	1.0	0.20	ug/L			03/15/19 20:52	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			03/15/19 20:52	1
Naphthalene	1.0	U	1.0	0.32	ug/L			03/15/19 20:52	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: IMW-02-0004S

Date Collected: 03/08/19 11:45
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-29

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	90		70 - 123		03/15/19 20:52	1
Dibromofluoromethane (Surr)	93		75 - 128		03/15/19 20:52	1
4-Bromofluorobenzene (Surr)	92		59 - 120		03/15/19 20:52	1
1,2-Dichloroethane-d4 (Surr)	90		70 - 121		03/15/19 20:52	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: TRIP BLANK 1

Lab Sample ID: 240-109180-30

Date Collected: 03/08/19 12:00
Matrix: Water
Date Received: 03/09/19 09:50

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			03/14/19 19:20	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			03/14/19 19:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			03/14/19 19:20	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			03/14/19 19:20	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			03/14/19 19:20	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			03/14/19 19:20	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			03/14/19 19:20	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.91	ug/L			03/14/19 19:20	1
Ethylene Dibromide	1.0	U	1.0	0.12	ug/L			03/14/19 19:20	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			03/14/19 19:20	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/14/19 19:20	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			03/14/19 19:20	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			03/14/19 19:20	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			03/14/19 19:20	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			03/14/19 19:20	1
2-Hexanone	10	U	10	0.54	ug/L			03/14/19 19:20	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			03/14/19 19:20	1
Acetone	10	U	10	5.4	ug/L			03/14/19 19:20	1
Benzene	1.0	U	1.0	0.13	ug/L			03/14/19 19:20	1
Dichlorobromomethane	1.0	U	1.0	0.17	ug/L			03/14/19 19:20	1
Bromoform	1.0	U	1.0	0.76	ug/L			03/14/19 19:20	1
Bromomethane	1.0	U	1.0	0.42	ug/L			03/14/19 19:20	1
Carbon disulfide	1.0	U	1.0	0.28	ug/L			03/14/19 19:20	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			03/14/19 19:20	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/14/19 19:20	1
Chloroethane	1.0	U	1.0	0.83	ug/L			03/14/19 19:20	1
Chloroform	1.0	U	1.0	0.13	ug/L			03/14/19 19:20	1
Chloromethane	1.0	U	1.0	0.20	ug/L			03/14/19 19:20	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			03/14/19 19:20	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			03/14/19 19:20	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			03/14/19 19:20	1
Chlorodibromomethane	1.0	U	1.0	0.39	ug/L			03/14/19 19:20	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			03/14/19 19:20	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			03/14/19 19:20	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			03/14/19 19:20	1
Methyl acetate	10	U	10	1.7	ug/L			03/14/19 19:20	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			03/14/19 19:20	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			03/14/19 19:20	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			03/14/19 19:20	1
Styrene	1.0	U	1.0	0.10	ug/L			03/14/19 19:20	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			03/14/19 19:20	1
Toluene	1.0	U	1.0	0.14	ug/L			03/14/19 19:20	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			03/14/19 19:20	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			03/14/19 19:20	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			03/14/19 19:20	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			03/14/19 19:20	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			03/14/19 19:20	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			03/14/19 19:20	1
Naphthalene	1.0	U	1.0	0.32	ug/L			03/14/19 19:20	1

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: TRIP BLANK 1

Lab Sample ID: 240-109180-30

Date Collected: 03/08/19 12:00

Matrix: Water

Date Received: 03/09/19 09:50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	91		70 - 123		03/14/19 19:20	1
Dibromofluoromethane (Surr)	101		75 - 128		03/14/19 19:20	1
4-Bromofluorobenzene (Surr)	93		59 - 120		03/14/19 19:20	1
1,2-Dichloroethane-d4 (Surr)	98		70 - 121		03/14/19 19:20	1

Surrogate Summary

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DBFM	BFB	DCA
Lab Sample ID	Client Sample ID	(49-147)	(49-138)	(48-151)	(53-155)
240-109180-1	SB01-0-2	91	92	100	112
240-109180-2	SB01-5-7	94	94	101	107
240-109180-3	SB02-0-2	93	95	102	110
240-109180-4	SB02-6-8	90	87	95	104
240-109180-5	SB03-0-2	89	86	96	103
240-109180-6	SB03-6-8	87	83	90	102
240-109180-7	9584-030519-0001	81	59	85	96
240-109180-8	SB04-0-2	88	64	94	105
240-109180-9	SB04-6-8	91	88	97	106
240-109180-9 MS	SB04-6-8	87	92	98	103
240-109180-9 MSD	SB04-6-8	95	100	102	111
240-109180-10	SB05-0-2	84	79	83	80
240-109180-10 MS	SB05-0-2	83	85	87	79
240-109180-10 MSD	SB05-0-2	82	83	89	78
240-109180-11	SB05-6-8	87	84	88	102
240-109180-14	9584-030619-0002	83	83	87	98
240-109180-15	SB06-0-2	89	81	88	101
240-109180-16	SB06-2-4	89	88	93	109
240-109180-17	SB07-0-2	89	86	91	104
240-109180-18	SB07-4-6	93	92	96	113
240-109180-19	SB09-0-2	86	79	86	101
240-109180-20	SB09-3-5	84	84	87	103
240-109180-21	SB10-0-2	85	84	88	106
240-109180-22	SB10-4-6	74	75	77	92
240-109180-23	SB08-0-2	81	79	86	80
240-109180-24	SB08-2-4	89	81	90	85
LCS 240-371418/2-A	Lab Control Sample	77	81	87	85
LCS 240-371452/2-A	Lab Control Sample	78	77	81	89
MB 240-371418/1-A	Method Blank	79	83	90	94
MB 240-371452/1-A	Method Blank	78	78	82	94

Surrogate Legend

TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DBFM	BFB	DCA
Lab Sample ID	Client Sample ID	(70-123)	(75-128)	(59-120)	(70-121)
240-109180-12	RINSE BLANK 1	91	104	94	99
240-109180-13	RINSE BLANK 2	93	98	95	97
240-109180-27	IFW-02-00022R	92	98	95	93
240-109180-28	9584-030819-0004	91	100	93	95
240-109180-29	IMW-02-0004S	90	93	92	90
240-109180-29 MS	IMW-02-0004S	91	95	97	88
240-109180-29 MSD	IMW-02-0004S	91	97	95	90

Surrogate Summary

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DBFM	BFB	DCA
Lab Sample ID	Client Sample ID	(70-123)	(75-128)	(59-120)	(70-121)
240-109180-30	TRIP BLANK 1	91	101	93	98
LCS 240-371647/5	Lab Control Sample	93	98	99	93
LCS 240-371838/5	Lab Control Sample	92	99	100	91
LCSD 240-371647/6	Lab Control Sample Dup	91	101	98	95
MB 240-371647/8	Method Blank	89	103	93	98
MB 240-371838/7	Method Blank	92	100	95	96

Surrogate Legend

TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	TBP	NBZ	PHL	TPHL
Lab Sample ID	Client Sample ID	(32-120)	(29-120)	(10-120)	(30-120)	(29-120)	(41-120)
240-109180-1	SB01-0-2	80	77	33	72	65	89
240-109180-2	SB01-5-7	72	74	62	70	72	84
240-109180-3	SB02-0-2	75	78	69	66	76	97
240-109180-4	SB02-6-8	81	89	63	83	85	96
240-109180-5	SB03-0-2	59	58	54	52	62	69
240-109180-6	SB03-6-8	84	90	59	84	88	97
240-109180-7	9584-030519-0001	82	82	27	69	88	91
240-109180-7 MS	9584-030519-0001	81	74	27	77	82	86
240-109180-7 MSD	9584-030519-0001	73	62	32	86	75	91
240-109180-8	SB04-0-2	83	93	43	85	91	96
240-109180-9	SB04-6-8	90	97	73	89	93	109
240-109180-9 MS	SB04-6-8	91	99	79	96	98	104
240-109180-9 MSD	SB04-6-8	90	100	75	92	96	111
240-109180-10	SB05-0-2	76	73	64	67	77	95
240-109180-10 MS	SB05-0-2	78	79	69	75	81	90
240-109180-10 MSD	SB05-0-2	76	79	67	78	83	85
240-109180-11	SB05-6-8	70	73	45	60	71	85
240-109180-14	9584-030619-0002	77	82	69	76	80	97
240-109180-15	SB06-0-2	90	85	56	80	79	96
240-109180-16	SB06-2-4	85	96	77	85	97	97
240-109180-17	SB07-0-2	77	67	82	55	70	95
240-109180-18	SB07-4-6	69	67	62	59	69	85
240-109180-19	SB09-0-2	75	74	78	58	73	90
240-109180-20	SB09-3-5	78	71	68	64	73	93
240-109180-21	SB10-0-2	91	78	71	69	85	103
240-109180-22	SB10-4-6	69	70	57	60	69	88
240-109180-23	SB08-0-2	89	81	56	74	84	91
240-109180-24	SB08-2-4	77	77	52	63	75	84
LCS 240-370982/24-A	Lab Control Sample	86	93	75	91	98	101
LCS 240-371183/22-A	Lab Control Sample	84	98	86	87	97	91
LCS 240-371871/24-A	Lab Control Sample	82	82	64	80	84	94
LCS 240-371874/7-A	Lab Control Sample	81	91	55	85	93	95

Surrogate Summary

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	TBP	NBZ	PHL	TPHL
Lab Sample ID	Client Sample ID	(32-120)	(29-120)	(10-120)	(30-120)	(29-120)	(41-120)
MB 240-370982/23-A	Method Blank	68	65	31	69	72	78
MB 240-371183/21-A	Method Blank	83	95	65	84	98	104
MB 240-371871/23-A	Method Blank	74	73	37	65	76	92
MB 240-371874/6-A	Method Blank	89	96	33	90	97	102

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	TBP	NBZ	PHL	TPHL
Lab Sample ID	Client Sample ID	(38-120)	(10-120)	(28-120)	(32-120)	(10-120)	(23-127)
240-109180-12	RINSE BLANK 1	82	48	45	82	28	76
240-109180-13	RINSE BLANK 2	81	45	52	87	27	89
LCS 240-371076/19-A	Lab Control Sample	93	81	93	96	57	103
MB 240-371076/18-A	Method Blank	76	64	52	78	47	86

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 240-371418/1-A
Matrix: Solid
Analysis Batch: 371479

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 371418

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	250	U	250	14	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
1,1,2,2-Tetrachloroethane	250	U	250	14	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	250	U	250	67	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
1,1,2-Trichloroethane	250	U	250	13	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
1,1-Dichloroethane	250	U	250	9.0	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
1,1-Dichloroethene	250	U	250	15	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
1,2,4-Trichlorobenzene	250	U	250	130	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
1,2-Dibromo-3-Chloropropane	500	U	500	88	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Ethylene Dibromide	250	U	250	79	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
1,2-Dichlorobenzene	250	U	250	21	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
1,2-Dichloroethane	250	U	250	12	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
1,2-Dichloropropane	250	U	250	8.0	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
1,3-Dichlorobenzene	250	U	250	21	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
1,4-Dichlorobenzene	250	U	250	17	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
2-Butanone (MEK)	1000	U	1000	160	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
2-Hexanone	1000	U	1000	260	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
4-Methyl-2-pentanone (MIBK)	1000	U	1000	240	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Acetone	1000	U	1000	240	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Benzene	250	U	250	8.0	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Dichlorobromomethane	250	U	250	28	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Bromoform	250	U	250	110	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Bromomethane	250	U	250	170	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Carbon disulfide	250	U	250	110	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Carbon tetrachloride	250	U	250	18	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Chlorobenzene	250	U	250	35	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Chloroethane	250	U	250	150	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Chloroform	250	U	250	9.0	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Chloromethane	250	U	250	66	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
cis-1,2-Dichloroethene	250	U	250	9.0	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
cis-1,3-Dichloropropene	250	U	250	37	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Cyclohexane	500	U	500	160	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Chlorodibromomethane	250	U	250	120	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Dichlorodifluoromethane	250	U	250	53	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Ethylbenzene	250	U	250	12	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Isopropylbenzene	250	U	250	38	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Methyl acetate	1300	U	1300	530	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Methyl tert-butyl ether	250	U	250	37	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Methylcyclohexane	500	U	500	66	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Methylene Chloride	500	U	500	380	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Styrene	250	U	250	12	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Tetrachloroethene	250	U	250	15	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Toluene	250	U	250	45	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
trans-1,2-Dichloroethene	250	U	250	15	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
trans-1,3-Dichloropropene	250	U	250	110	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Trichloroethene	250	U	250	13	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Trichlorofluoromethane	250	U	250	46	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Vinyl chloride	250	U	250	10	ug/Kg		03/13/19 11:20	03/14/19 11:05	1
Xylenes, Total	500	U	500	23	ug/Kg		03/13/19 11:20	03/14/19 11:05	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 240-371418/1-A
Matrix: Solid
Analysis Batch: 371479

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 371418

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	250	U	250	120	ug/Kg		03/13/19 11:20	03/14/19 11:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*79*		*49 - 147*	*03/13/19 11:20*	*03/14/19 11:05*	*1*
Dibromofluoromethane (Surr)	*83*		*49 - 138*	*03/13/19 11:20*	*03/14/19 11:05*	*1*
4-Bromofluorobenzene (Surr)	*90*		*48 - 151*	*03/13/19 11:20*	*03/14/19 11:05*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*53 - 155*	*03/13/19 11:20*	*03/14/19 11:05*	*1*

Lab Sample ID: LCS 240-371418/2-A
Matrix: Solid
Analysis Batch: 371479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371418

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	1000	690		ug/Kg		69	64 - 135
1,1,2,2-Tetrachloroethane	1000	708		ug/Kg		71	68 - 128
1,1,2-Trichloro-1,2,2-trifluoroethane	1000	893		ug/Kg		89	56 - 138
1,1,2-Trichloroethane	1000	843		ug/Kg		84	78 - 120
1,1-Dichloroethane	1000	941		ug/Kg		94	72 - 122
1,1-Dichloroethene	1000	928		ug/Kg		93	57 - 139
1,2,4-Trichlorobenzene	1000	704		ug/Kg		70	54 - 120
1,2-Dibromo-3-Chloropropane	1000	368	J *	ug/Kg		37	38 - 135
Ethylene Dibromide	1000	670	*	ug/Kg		67	76 - 120
1,2-Dichlorobenzene	1000	864		ug/Kg		86	73 - 120
1,2-Dichloroethane	1000	942		ug/Kg		94	64 - 126
1,2-Dichloropropane	1000	862		ug/Kg		86	78 - 122
1,3-Dichlorobenzene	1000	861		ug/Kg		86	70 - 120
1,4-Dichlorobenzene	1000	841		ug/Kg		84	71 - 120
2-Butanone (MEK)	2000	2180		ug/Kg		109	45 - 148
2-Hexanone	2000	1800		ug/Kg		90	52 - 145
4-Methyl-2-pentanone (MIBK)	2000	1700		ug/Kg		85	53 - 139
Acetone	2000	1880		ug/Kg		94	43 - 159
Benzene	1000	876		ug/Kg		88	74 - 123
Dichlorobromomethane	1000	659		ug/Kg		66	63 - 132
Bromoform	1000	484		ug/Kg		48	46 - 137
Bromomethane	1000	670		ug/Kg		67	10 - 152
Carbon disulfide	1000	757		ug/Kg		76	29 - 153
Carbon tetrachloride	1000	555		ug/Kg		56	56 - 139
Chlorobenzene	1000	915		ug/Kg		92	80 - 120
Chloroethane	1000	1020		ug/Kg		102	15 - 155
Chloroform	1000	913		ug/Kg		91	72 - 124
Chloromethane	1000	960		ug/Kg		96	45 - 128
cis-1,2-Dichloroethene	1000	901		ug/Kg		90	74 - 123
cis-1,3-Dichloropropene	1000	503	*	ug/Kg		50	63 - 137
Cyclohexane	1000	1010		ug/Kg		101	64 - 130
Chlorodibromomethane	1000	550	*	ug/Kg		55	58 - 131
Dichlorodifluoromethane	1000	580		ug/Kg		58	26 - 138
Ethylbenzene	1000	901		ug/Kg		90	76 - 120
Isopropylbenzene	1000	995		ug/Kg		100	77 - 124

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 240-371418/2-A
Matrix: Solid
Analysis Batch: 371479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371418

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl acetate	2000	1910		ug/Kg		95	52 - 136
Methyl tert-butyl ether	1000	824		ug/Kg		82	66 - 127
Methylcyclohexane	1000	861		ug/Kg		86	68 - 127
Methylene Chloride	1000	993		ug/Kg		99	62 - 137
Styrene	1000	913		ug/Kg		91	76 - 121
Tetrachloroethene	1000	906		ug/Kg		91	76 - 120
Toluene	1000	898		ug/Kg		90	76 - 120
trans-1,2-Dichloroethene	1000	957		ug/Kg		96	71 - 133
trans-1,3-Dichloropropene	1000	380	*	ug/Kg		38	55 - 121
Trichloroethene	1000	831		ug/Kg		83	73 - 126
Trichlorofluoromethane	1000	970		ug/Kg		97	47 - 146
Vinyl chloride	1000	992		ug/Kg		99	52 - 130
Xylenes, Total	2000	1920		ug/Kg		96	79 - 120
m-Xylene & p-Xylene	1000	924		ug/Kg		92	77 - 120
o-Xylene	1000	993		ug/Kg		99	79 - 120
Naphthalene	1000	571		ug/Kg		57	51 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*77*		*49 - 147*
Dibromofluoromethane (Surr)	*81*		*49 - 138*
4-Bromofluorobenzene (Surr)	*87*		*48 - 151*
1,2-Dichloroethane-d4 (Surr)	*85*		*53 - 155*

Lab Sample ID: 240-109180-9 MS
Matrix: Solid
Analysis Batch: 371479

Client Sample ID: SB04-6-8
Prep Type: Total/NA
Prep Batch: 371418

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	250	U	984	725		ug/Kg	☼	74	38 - 143
1,1,2,2-Tetrachloroethane	250	U F2	984	697		ug/Kg	☼	71	16 - 178
1,1,2-Trichloro-1,2,2-trifluoroethane	250	U	984	1050		ug/Kg	☼	107	37 - 147
1,1,2-Trichloroethane	250	U	984	927		ug/Kg	☼	94	31 - 151
1,1-Dichloroethane	250	U	984	1120		ug/Kg	☼	114	50 - 133
1,1-Dichloroethene	250	U	984	1070		ug/Kg	☼	109	36 - 150
1,2,4-Trichlorobenzene	250	U	984	739		ug/Kg	☼	75	10 - 120
1,2-Dibromo-3-Chloropropane	490	U * F2	984	241	J	ug/Kg	☼	25	10 - 141
Ethylene Dibromide	250	U *	984	675		ug/Kg	☼	69	36 - 125
1,2-Dichlorobenzene	250	U	984	951		ug/Kg	☼	97	10 - 130
1,2-Dichloroethane	250	U F1	984	1100		ug/Kg	☼	112	42 - 127
1,2-Dichloropropane	250	U	984	985		ug/Kg	☼	100	51 - 128
1,3-Dichlorobenzene	250	U	984	931		ug/Kg	☼	95	10 - 131
1,4-Dichlorobenzene	250	U	984	915		ug/Kg	☼	93	10 - 130
2-Butanone (MEK)	990	U	1970	2580		ug/Kg	☼	131	20 - 148
2-Hexanone	990	U	1970	2020		ug/Kg	☼	103	15 - 147
4-Methyl-2-pentanone (MIBK)	990	U	1970	1930		ug/Kg	☼	98	29 - 143
Acetone	990	U	1970	2200		ug/Kg	☼	112	10 - 160
Benzene	250	U	984	1010		ug/Kg	☼	102	39 - 133
Dichlorobromomethane	250	U	984	670		ug/Kg	☼	68	32 - 129

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 240-109180-9 MS
Matrix: Solid
Analysis Batch: 371479

Client Sample ID: SB04-6-8
Prep Type: Total/NA
Prep Batch: 371418

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromoform	250	U	984	460		ug/Kg	☼	47	18 - 120
Bromomethane	250	U	984	828		ug/Kg	☼	84	10 - 159
Carbon disulfide	250	U F2	984	760		ug/Kg	☼	77	16 - 145
Carbon tetrachloride	250	U	984	550		ug/Kg	☼	56	22 - 142
Chlorobenzene	250	U	984	1010		ug/Kg	☼	103	21 - 131
Chloroethane	250	U	984	1210		ug/Kg	☼	123	17 - 162
Chloroform	250	U	984	1060		ug/Kg	☼	107	51 - 130
Chloromethane	250	U	984	1130		ug/Kg	☼	114	26 - 149
cis-1,2-Dichloroethene	250	U	984	1090		ug/Kg	☼	110	50 - 128
cis-1,3-Dichloropropene	250	U *	984	523		ug/Kg	☼	53	15 - 132
Cyclohexane	490	U	984	1140		ug/Kg	☼	116	34 - 137
Chlorodibromomethane	250	U *	984	505		ug/Kg	☼	51	27 - 126
Dichlorodifluoromethane	250	U	984	604		ug/Kg	☼	61	15 - 150
Ethylbenzene	26	J	984	1030		ug/Kg	☼	102	20 - 135
Isopropylbenzene	250	U	984	1120		ug/Kg	☼	114	20 - 138
Methyl acetate	1200	U F1	1970	3130		ug/Kg	☼	159	12 - 160
Methyl tert-butyl ether	250	U	984	1020		ug/Kg	☼	103	48 - 134
Methylcyclohexane	120	J	984	970		ug/Kg	☼	86	23 - 133
Methylene Chloride	490	U	984	1160		ug/Kg	☼	118	39 - 145
Styrene	250	U	984	997		ug/Kg	☼	101	10 - 134
Tetrachloroethene	250	U	984	1040		ug/Kg	☼	106	20 - 151
Toluene	110	J	984	1020		ug/Kg	☼	93	29 - 141
trans-1,2-Dichloroethene	250	U	984	1100		ug/Kg	☼	112	44 - 141
trans-1,3-Dichloropropene	250	U *	984	409		ug/Kg	☼	42	15 - 120
Trichloroethene	250	U F1	984	977		ug/Kg	☼	99	25 - 148
Trichlorofluoromethane	250	U	984	1090		ug/Kg	☼	111	38 - 149
Vinyl chloride	250	U	984	1130		ug/Kg	☼	114	31 - 148
Xylenes, Total	180	J	1970	2150		ug/Kg	☼	100	19 - 137
m-Xylene & p-Xylene	110	J	984	1050		ug/Kg	☼	96	16 - 137
o-Xylene	71	J	984	1100		ug/Kg	☼	104	21 - 138
Naphthalene	250	U	984	642		ug/Kg	☼	65	10 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*87*		*49 - 147*
Dibromofluoromethane (Surr)	*92*		*49 - 138*
4-Bromofluorobenzene (Surr)	*98*		*48 - 151*
1,2-Dichloroethane-d4 (Surr)	*103*		*53 - 155*

Lab Sample ID: 240-109180-9 MSD
Matrix: Solid
Analysis Batch: 371479

Client Sample ID: SB04-6-8
Prep Type: Total/NA
Prep Batch: 371418

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	250	U	896	810		ug/Kg	☼	90	38 - 143	11	40
1,1,2,2-Tetrachloroethane	250	U F2	896	389	F2	ug/Kg	☼	43	16 - 178	57	40
1,1,2-Trichloro-1,2,2-trifluoroetha ne	250	U	896	1080		ug/Kg	☼	121	37 - 147	3	37
1,1,2-Trichloroethane	250	U	896	931		ug/Kg	☼	104	31 - 151	0	40
1,1-Dichloroethane	250	U	896	1130		ug/Kg	☼	126	50 - 133	1	40

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 240-109180-9 MSD
Matrix: Solid
Analysis Batch: 371479

Client Sample ID: SB04-6-8
Prep Type: Total/NA
Prep Batch: 371418

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	250	U	896	1090		ug/Kg	☼	121	36 - 150	1	40
1,2,4-Trichlorobenzene	250	U	896	830		ug/Kg	☼	93	10 - 120	12	40
1,2-Dibromo-3-Chloropropane	490	U * F2	896	394	J F2	ug/Kg	☼	44	10 - 141	48	40
Ethylene Dibromide	250	U *	896	790		ug/Kg	☼	88	36 - 125	16	40
1,2-Dichlorobenzene	250	U	896	1040		ug/Kg	☼	116	10 - 130	9	40
1,2-Dichloroethane	250	U F1	896	1140	F1	ug/Kg	☼	128	42 - 127	4	34
1,2-Dichloropropane	250	U	896	1020		ug/Kg	☼	114	51 - 128	4	36
1,3-Dichlorobenzene	250	U	896	982		ug/Kg	☼	110	10 - 131	5	40
1,4-Dichlorobenzene	250	U	896	970		ug/Kg	☼	108	10 - 130	6	40
2-Butanone (MEK)	990	U	1790	2510		ug/Kg	☼	140	20 - 148	3	36
2-Hexanone	990	U	1790	2010		ug/Kg	☼	112	15 - 147	0	40
4-Methyl-2-pentanone (MIBK)	990	U	1790	1860		ug/Kg	☼	104	29 - 143	4	40
Acetone	990	U	1790	2240		ug/Kg	☼	125	10 - 160	2	39
Benzene	250	U	896	1040		ug/Kg	☼	116	39 - 133	3	40
Dichlorobromomethane	250	U	896	747		ug/Kg	☼	83	32 - 129	11	39
Bromoform	250	U	896	522		ug/Kg	☼	58	18 - 120	13	40
Bromomethane	250	U	896	795		ug/Kg	☼	89	10 - 159	4	40
Carbon disulfide	250	U F2	896	430	F2	ug/Kg	☼	48	16 - 145	56	40
Carbon tetrachloride	250	U	896	631		ug/Kg	☼	70	22 - 142	14	40
Chlorobenzene	250	U	896	1060		ug/Kg	☼	118	21 - 131	5	40
Chloroethane	250	U	896	1180		ug/Kg	☼	132	17 - 162	2	40
Chloroform	250	U	896	1090		ug/Kg	☼	121	51 - 130	3	32
Chloromethane	250	U	896	1120		ug/Kg	☼	125	26 - 149	1	37
cis-1,2-Dichloroethene	250	U	896	1050		ug/Kg	☼	117	50 - 128	3	40
cis-1,3-Dichloropropene	250	U *	896	580		ug/Kg	☼	65	15 - 132	10	40
Cyclohexane	490	U	896	1200		ug/Kg	☼	134	34 - 137	5	34
Chlorodibromomethane	250	U *	896	563		ug/Kg	☼	63	27 - 126	11	40
Dichlorodifluoromethane	250	U	896	647		ug/Kg	☼	72	15 - 150	7	31
Ethylbenzene	26	J	896	1060		ug/Kg	☼	115	20 - 135	3	40
Isopropylbenzene	250	U	896	1190		ug/Kg	☼	133	20 - 138	6	40
Methyl acetate	1200	U F1	1790	3230	F1	ug/Kg	☼	180	12 - 160	3	33
Methyl tert-butyl ether	250	U	896	986		ug/Kg	☼	110	48 - 134	3	34
Methylcyclohexane	120	J	896	1030		ug/Kg	☼	102	23 - 133	6	36
Methylene Chloride	490	U	896	1170		ug/Kg	☼	131	39 - 145	1	40
Styrene	250	U	896	1020		ug/Kg	☼	114	10 - 134	2	40
Tetrachloroethene	250	U	896	1080		ug/Kg	☼	121	20 - 151	3	40
Toluene	110	J	896	1080		ug/Kg	☼	108	29 - 141	5	40
trans-1,2-Dichloroethene	250	U	896	1080		ug/Kg	☼	121	44 - 141	2	40
trans-1,3-Dichloropropene	250	U *	896	473		ug/Kg	☼	53	15 - 120	15	40
Trichloroethene	250	U F1	896	1340	F1	ug/Kg	☼	149	25 - 148	31	40
Trichlorofluoromethane	250	U	896	1080		ug/Kg	☼	121	38 - 149	1	39
Vinyl chloride	250	U	896	1120		ug/Kg	☼	125	31 - 148	0	37
Xylenes, Total	180	J	1790	2300		ug/Kg	☼	118	19 - 137	7	40
m-Xylene & p-Xylene	110	J	896	1120		ug/Kg	☼	113	16 - 137	7	40
o-Xylene	71	J	896	1180		ug/Kg	☼	123	21 - 138	7	40
Naphthalene	250	U	896	731		ug/Kg	☼	82	10 - 120	13	40

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 240-109180-9 MSD
Matrix: Solid
Analysis Batch: 371479

Client Sample ID: SB04-6-8
Prep Type: Total/NA
Prep Batch: 371418

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*95*		*49 - 147*
Dibromofluoromethane (Surr)	*100*		*49 - 138*
4-Bromofluorobenzene (Surr)	*102*		*48 - 151*
1,2-Dichloroethane-d4 (Surr)	*111*		*53 - 155*

Lab Sample ID: MB 240-371452/1-A
Matrix: Solid
Analysis Batch: 371671

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 371452

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	250	U	250	14	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
1,1,2,2-Tetrachloroethane	250	U	250	14	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	250	U	250	67	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
1,1,2-Trichloroethane	250	U	250	13	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
1,1-Dichloroethane	250	U	250	9.0	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
1,1-Dichloroethene	250	U	250	15	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
1,2,4-Trichlorobenzene	250	U	250	130	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
1,2-Dibromo-3-Chloropropane	500	U	500	88	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Ethylene Dibromide	250	U	250	79	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
1,2-Dichlorobenzene	250	U	250	21	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
1,2-Dichloroethane	250	U	250	12	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
1,2-Dichloropropane	250	U	250	8.0	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
1,3-Dichlorobenzene	250	U	250	21	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
1,4-Dichlorobenzene	250	U	250	17	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
2-Butanone (MEK)	1000	U	1000	160	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
2-Hexanone	1000	U	1000	260	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
4-Methyl-2-pentanone (MIBK)	1000	U	1000	240	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Acetone	1000	U	1000	240	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Benzene	250	U	250	8.0	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Dichlorobromomethane	250	U	250	28	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Bromoform	250	U	250	110	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Bromomethane	250	U	250	170	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Carbon disulfide	250	U	250	110	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Carbon tetrachloride	250	U	250	18	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Chlorobenzene	250	U	250	35	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Chloroethane	250	U	250	150	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Chloroform	250	U	250	9.0	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Chloromethane	250	U	250	66	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
cis-1,2-Dichloroethene	250	U	250	9.0	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
cis-1,3-Dichloropropene	250	U	250	37	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Cyclohexane	500	U	500	160	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Chlorodibromomethane	250	U	250	120	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Dichlorodifluoromethane	250	U	250	53	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Ethylbenzene	250	U	250	12	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Isopropylbenzene	250	U	250	38	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Methyl acetate	1300	U	1300	530	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Methyl tert-butyl ether	250	U	250	37	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Methylcyclohexane	500	U	500	66	ug/Kg		03/13/19 13:53	03/15/19 09:36	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 240-371452/1-A
Matrix: Solid
Analysis Batch: 371671

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 371452

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	500	U	500	380	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Styrene	250	U	250	12	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Tetrachloroethene	250	U	250	15	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Toluene	250	U	250	45	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
trans-1,2-Dichloroethene	250	U	250	15	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
trans-1,3-Dichloropropene	250	U	250	110	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Trichloroethene	250	U	250	13	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Trichlorofluoromethane	250	U	250	46	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Vinyl chloride	250	U	250	10	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Xylenes, Total	500	U	500	23	ug/Kg		03/13/19 13:53	03/15/19 09:36	1
Naphthalene	250	U	250	120	ug/Kg		03/13/19 13:53	03/15/19 09:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*78*		*49 - 147*	*03/13/19 13:53*	*03/15/19 09:36*	*1*
Dibromofluoromethane (Surr)	*78*		*49 - 138*	*03/13/19 13:53*	*03/15/19 09:36*	*1*
4-Bromofluorobenzene (Surr)	*82*		*48 - 151*	*03/13/19 13:53*	*03/15/19 09:36*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*53 - 155*	*03/13/19 13:53*	*03/15/19 09:36*	*1*

Lab Sample ID: LCS 240-371452/2-A
Matrix: Solid
Analysis Batch: 371671

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371452

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	1000	577	*	ug/Kg		58	64 - 135
1,1,2,2-Tetrachloroethane	1000	695		ug/Kg		69	68 - 128
1,1,2-Trichloro-1,2,2-trifluoroethane	1000	859		ug/Kg		86	56 - 138
1,1,2-Trichloroethane	1000	858		ug/Kg		86	78 - 120
1,1-Dichloroethane	1000	882		ug/Kg		88	72 - 122
1,1-Dichloroethene	1000	815		ug/Kg		82	57 - 139
1,2,4-Trichlorobenzene	1000	687		ug/Kg		69	54 - 120
1,2-Dibromo-3-Chloropropane	1000	268	J *	ug/Kg		27	38 - 135
Ethylene Dibromide	1000	648	*	ug/Kg		65	76 - 120
1,2-Dichlorobenzene	1000	859		ug/Kg		86	73 - 120
1,2-Dichloroethane	1000	959		ug/Kg		96	64 - 126
1,2-Dichloropropane	1000	930		ug/Kg		93	78 - 122
1,3-Dichlorobenzene	1000	874		ug/Kg		87	70 - 120
1,4-Dichlorobenzene	1000	855		ug/Kg		85	71 - 120
2-Butanone (MEK)	2000	2250		ug/Kg		112	45 - 148
2-Hexanone	2000	1680		ug/Kg		84	52 - 145
4-Methyl-2-pentanone (MIBK)	2000	1650		ug/Kg		82	53 - 139
Acetone	2000	1760		ug/Kg		88	43 - 159
Benzene	1000	865		ug/Kg		87	74 - 123
Dichlorobromomethane	1000	634		ug/Kg		63	63 - 132
Bromoform	1000	443	*	ug/Kg		44	46 - 137
Bromomethane	1000	632		ug/Kg		63	10 - 152
Carbon disulfide	1000	605		ug/Kg		60	29 - 153
Carbon tetrachloride	1000	471	*	ug/Kg		47	56 - 139
Chlorobenzene	1000	923		ug/Kg		92	80 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 240-371452/2-A
Matrix: Solid
Analysis Batch: 371671

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371452

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	1000	899		ug/Kg		90	15 - 155
Chloroform	1000	866		ug/Kg		87	72 - 124
Chloromethane	1000	840		ug/Kg		84	45 - 128
cis-1,2-Dichloroethene	1000	854		ug/Kg		85	74 - 123
cis-1,3-Dichloropropene	1000	529	*	ug/Kg		53	63 - 137
Cyclohexane	1000	935		ug/Kg		94	64 - 130
Chlorodibromomethane	1000	529	*	ug/Kg		53	58 - 131
Dichlorodifluoromethane	1000	550		ug/Kg		55	26 - 138
Ethylbenzene	1000	904		ug/Kg		90	76 - 120
Isopropylbenzene	1000	934		ug/Kg		93	77 - 124
Methyl acetate	2000	1860		ug/Kg		93	52 - 136
Methyl tert-butyl ether	1000	766		ug/Kg		77	66 - 127
Methylcyclohexane	1000	775		ug/Kg		77	68 - 127
Methylene Chloride	1000	836		ug/Kg		84	62 - 137
Styrene	1000	897		ug/Kg		90	76 - 121
Tetrachloroethene	1000	934		ug/Kg		93	76 - 120
Toluene	1000	921		ug/Kg		92	76 - 120
trans-1,2-Dichloroethene	1000	879		ug/Kg		88	71 - 133
trans-1,3-Dichloropropene	1000	410	*	ug/Kg		41	55 - 121
Trichloroethene	1000	840		ug/Kg		84	73 - 126
Trichlorofluoromethane	1000	891		ug/Kg		89	47 - 146
Vinyl chloride	1000	866		ug/Kg		87	52 - 130
Xylenes, Total	2000	1890		ug/Kg		95	79 - 120
m-Xylene & p-Xylene	1000	940		ug/Kg		94	77 - 120
o-Xylene	1000	952		ug/Kg		95	79 - 120
Naphthalene	1000	502	*	ug/Kg		50	51 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*78*		*49 - 147*
Dibromofluoromethane (Surr)	*77*		*49 - 138*
4-Bromofluorobenzene (Surr)	*81*		*48 - 151*
1,2-Dichloroethane-d4 (Surr)	*89*		*53 - 155*

Lab Sample ID: 240-109180-10 MS
Matrix: Solid
Analysis Batch: 371803

Client Sample ID: SB05-0-2
Prep Type: Total/NA
Prep Batch: 371452

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	65	J *	1050	977		ug/Kg	☼	87	38 - 143
1,1,2,2-Tetrachloroethane	260	U	1050	1100		ug/Kg	☼	105	16 - 178
1,1,2-Trichloro-1,2,2-trifluoroethane	260	U	1050	879		ug/Kg	☼	83	37 - 147
1,1,2-Trichloroethane	260	U	1050	1110		ug/Kg	☼	106	31 - 151
1,1-Dichloroethane	260	U	1050	941		ug/Kg	☼	89	50 - 133
1,1-Dichloroethene	260	U	1050	743		ug/Kg	☼	70	36 - 150
1,2,4-Trichlorobenzene	260	U	1050	899		ug/Kg	☼	85	10 - 120
1,2-Dibromo-3-Chloropropane	520	U *	1050	870		ug/Kg	☼	82	10 - 141
Ethylene Dibromide	260	U *	1050	1040		ug/Kg	☼	99	36 - 125
1,2-Dichlorobenzene	260	U	1050	1050		ug/Kg	☼	99	10 - 130

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 240-109180-10 MS
Matrix: Solid
Analysis Batch: 371803

Client Sample ID: SB05-0-2
Prep Type: Total/NA
Prep Batch: 371452

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	260	U	1050	957		ug/Kg	☼	91	42 - 127
1,2-Dichloropropane	260	U	1050	1100		ug/Kg	☼	104	51 - 128
1,3-Dichlorobenzene	260	U	1050	1030		ug/Kg	☼	97	10 - 131
1,4-Dichlorobenzene	260	U	1050	997		ug/Kg	☼	95	10 - 130
2-Butanone (MEK)	1000	U	2110	1880		ug/Kg	☼	89	20 - 148
2-Hexanone	1000	U	2110	1950		ug/Kg	☼	93	15 - 147
4-Methyl-2-pentanone (MIBK)	1000	U	2110	1790		ug/Kg	☼	85	29 - 143
Acetone	1000	U	2110	1820		ug/Kg	☼	86	10 - 160
Benzene	8.4	J	1050	1080		ug/Kg	☼	101	39 - 133
Dichlorobromomethane	260	U	1050	892		ug/Kg	☼	85	32 - 129
Bromoform	260	U *	1050	824		ug/Kg	☼	78	18 - 120
Bromomethane	260	U	1050	367		ug/Kg	☼	35	10 - 159
Carbon disulfide	260	U	1050	556		ug/Kg	☼	53	16 - 145
Carbon tetrachloride	260	U *	1050	848		ug/Kg	☼	80	22 - 142
Chlorobenzene	260	U	1050	1050		ug/Kg	☼	100	21 - 131
Chloroethane	260	U F2	1050	260	J	ug/Kg	☼	25	17 - 162
Chloroform	260	U	1050	1030		ug/Kg	☼	98	51 - 130
Chloromethane	260	U	1050	779		ug/Kg	☼	74	26 - 149
cis-1,2-Dichloroethene	260	U	1050	1020		ug/Kg	☼	97	50 - 128
cis-1,3-Dichloropropene	260	U *	1050	1070		ug/Kg	☼	101	15 - 132
Cyclohexane	520	U	1050	873		ug/Kg	☼	83	34 - 137
Chlorodibromomethane	260	U *	1050	887		ug/Kg	☼	84	27 - 126
Dichlorodifluoromethane	260	U	1050	568		ug/Kg	☼	54	15 - 150
Ethylbenzene	18	J	1050	1060		ug/Kg	☼	99	20 - 135
Isopropylbenzene	260	U	1050	1060		ug/Kg	☼	101	20 - 138
Methyl acetate	1300	U	2110	2390		ug/Kg	☼	113	12 - 160
Methyl tert-butyl ether	260	U	1050	1030		ug/Kg	☼	98	48 - 134
Methylcyclohexane	80	J	1050	1060		ug/Kg	☼	93	23 - 133
Methylene Chloride	520	U	1050	746		ug/Kg	☼	71	39 - 145
Styrene	260	U	1050	1010		ug/Kg	☼	96	10 - 134
Tetrachloroethene	190	J	1050	1170		ug/Kg	☼	93	20 - 151
Toluene	83	J	1050	1070		ug/Kg	☼	94	29 - 141
trans-1,2-Dichloroethene	260	U	1050	970		ug/Kg	☼	92	44 - 141
trans-1,3-Dichloropropene	260	U *	1050	971		ug/Kg	☼	92	15 - 120
Trichloroethene	260	U	1050	1000		ug/Kg	☼	95	25 - 148
Trichlorofluoromethane	260	U	1050	630		ug/Kg	☼	60	38 - 149
Vinyl chloride	260	U	1050	880		ug/Kg	☼	83	31 - 148
Xylenes, Total	85	J	2110	2210		ug/Kg	☼	101	19 - 137
m-Xylene & p-Xylene	57	J	1050	1120		ug/Kg	☼	101	16 - 137
o-Xylene	28	J	1050	1090		ug/Kg	☼	101	21 - 138
Naphthalene	190	J *	1050	1170		ug/Kg	☼	93	10 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*83*		*49 - 147*
Dibromofluoromethane (Surr)	*85*		*49 - 138*
4-Bromofluorobenzene (Surr)	*87*		*48 - 151*
1,2-Dichloroethane-d4 (Surr)	*79*		*53 - 155*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 240-109180-10 MSD
Matrix: Solid
Analysis Batch: 371803

Client Sample ID: SB05-0-2
Prep Type: Total/NA
Prep Batch: 371452

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	65	J *	1170	1030		ug/Kg	☼	82	38 - 143	6	40
1,1,2,2-Tetrachloroethane	260	U	1170	1210		ug/Kg	☼	103	16 - 178	9	40
1,1,2-Trichloro-1,2,2-trifluoroethane	260	U	1170	914		ug/Kg	☼	78	37 - 147	4	37
1,1,2-Trichloroethane	260	U	1170	1150		ug/Kg	☼	98	31 - 151	3	40
1,1-Dichloroethane	260	U	1170	997		ug/Kg	☼	85	50 - 133	6	40
1,1-Dichloroethene	260	U	1170	805		ug/Kg	☼	69	36 - 150	8	40
1,2,4-Trichlorobenzene	260	U	1170	917		ug/Kg	☼	78	10 - 120	2	40
1,2-Dibromo-3-Chloropropane	520	U *	1170	953		ug/Kg	☼	81	10 - 141	9	40
Ethylene Dibromide	260	U *	1170	1110		ug/Kg	☼	95	36 - 125	7	40
1,2-Dichlorobenzene	260	U	1170	1110		ug/Kg	☼	95	10 - 130	6	40
1,2-Dichloroethane	260	U	1170	1000		ug/Kg	☼	85	42 - 127	5	34
1,2-Dichloropropane	260	U	1170	1120		ug/Kg	☼	95	51 - 128	1	36
1,3-Dichlorobenzene	260	U	1170	1110		ug/Kg	☼	94	10 - 131	8	40
1,4-Dichlorobenzene	260	U	1170	1060		ug/Kg	☼	90	10 - 130	6	40
2-Butanone (MEK)	1000	U	2350	2020		ug/Kg	☼	86	20 - 148	7	36
2-Hexanone	1000	U	2350	2220		ug/Kg	☼	94	15 - 147	13	40
4-Methyl-2-pentanone (MIBK)	1000	U	2350	1930		ug/Kg	☼	82	29 - 143	8	40
Acetone	1000	U	2350	1690		ug/Kg	☼	72	10 - 160	8	39
Benzene	8.4	J	1170	1120		ug/Kg	☼	95	39 - 133	4	40
Dichlorobromomethane	260	U	1170	926		ug/Kg	☼	79	32 - 129	4	39
Bromoform	260	U *	1170	924		ug/Kg	☼	79	18 - 120	11	40
Bromomethane	260	U	1170	383		ug/Kg	☼	33	10 - 159	4	40
Carbon disulfide	260	U	1170	533		ug/Kg	☼	45	16 - 145	4	40
Carbon tetrachloride	260	U *	1170	903		ug/Kg	☼	77	22 - 142	6	40
Chlorobenzene	260	U	1170	1140		ug/Kg	☼	97	21 - 131	8	40
Chloroethane	260	U F2	1170	528	F4	ug/Kg	☼	45	17 - 162	68	40
Chloroform	260	U	1170	1060		ug/Kg	☼	90	51 - 130	2	32
Chloromethane	260	U	1170	840		ug/Kg	☼	72	26 - 149	8	37
cis-1,2-Dichloroethene	260	U	1170	1060		ug/Kg	☼	90	50 - 128	4	40
cis-1,3-Dichloropropene	260	U *	1170	1050		ug/Kg	☼	89	15 - 132	2	40
Cyclohexane	520	U	1170	927		ug/Kg	☼	79	34 - 137	6	34
Chlorodibromomethane	260	U *	1170	932		ug/Kg	☼	79	27 - 126	5	40
Dichlorodifluoromethane	260	U	1170	657		ug/Kg	☼	56	15 - 150	15	31
Ethylbenzene	18	J	1170	1160		ug/Kg	☼	97	20 - 135	8	40
Isopropylbenzene	260	U	1170	1140		ug/Kg	☼	97	20 - 138	8	40
Methyl acetate	1300	U	2350	2750		ug/Kg	☼	117	12 - 160	14	33
Methyl tert-butyl ether	260	U	1170	1070		ug/Kg	☼	91	48 - 134	4	34
Methylcyclohexane	80	J	1170	1120		ug/Kg	☼	89	23 - 133	6	36
Methylene Chloride	520	U	1170	729		ug/Kg	☼	62	39 - 145	2	40
Styrene	260	U	1170	1090		ug/Kg	☼	93	10 - 134	8	40
Tetrachloroethene	190	J	1170	1180		ug/Kg	☼	84	20 - 151	0	40
Toluene	83	J	1170	1120		ug/Kg	☼	88	29 - 141	4	40
trans-1,2-Dichloroethene	260	U	1170	1030		ug/Kg	☼	88	44 - 141	6	40
trans-1,3-Dichloropropene	260	U *	1170	1010		ug/Kg	☼	86	15 - 120	4	40
Trichloroethene	260	U	1170	1070		ug/Kg	☼	91	25 - 148	7	40
Trichlorofluoromethane	260	U	1170	656		ug/Kg	☼	56	38 - 149	4	39
Vinyl chloride	260	U	1170	850		ug/Kg	☼	72	31 - 148	3	37
Xylenes, Total	85	J	2350	2350		ug/Kg	☼	96	19 - 137	6	40

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 240-109180-10 MSD — **Client Sample ID: SB05-0-2**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371803 — **Prep Batch: 371452**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
m-Xylene & p-Xylene	57	J	1170	1180		ug/Kg	☼	96	16 - 137	5	40
o-Xylene	28	J	1170	1170		ug/Kg	☼	97	21 - 138	7	40
Naphthalene	190	J *	1170	1170		ug/Kg	☼	84	10 - 120	0	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*82*		*49 - 147*
Dibromofluoromethane (Surr)	*83*		*49 - 138*
4-Bromofluorobenzene (Surr)	*89*		*48 - 151*
1,2-Dichloroethane-d4 (Surr)	*78*		*53 - 155*

Lab Sample ID: MB 240-371647/8 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 371647

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			03/14/19 17:29	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			03/14/19 17:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			03/14/19 17:29	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			03/14/19 17:29	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			03/14/19 17:29	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			03/14/19 17:29	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			03/14/19 17:29	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.91	ug/L			03/14/19 17:29	1
Ethylene Dibromide	1.0	U	1.0	0.12	ug/L			03/14/19 17:29	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			03/14/19 17:29	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/14/19 17:29	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			03/14/19 17:29	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			03/14/19 17:29	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			03/14/19 17:29	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			03/14/19 17:29	1
2-Hexanone	10	U	10	0.54	ug/L			03/14/19 17:29	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			03/14/19 17:29	1
Acetone	10	U	10	5.4	ug/L			03/14/19 17:29	1
Benzene	1.0	U	1.0	0.13	ug/L			03/14/19 17:29	1
Dichlorobromomethane	1.0	U	1.0	0.17	ug/L			03/14/19 17:29	1
Bromoform	1.0	U	1.0	0.76	ug/L			03/14/19 17:29	1
Bromomethane	1.0	U	1.0	0.42	ug/L			03/14/19 17:29	1
Carbon disulfide	1.0	U	1.0	0.28	ug/L			03/14/19 17:29	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			03/14/19 17:29	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/14/19 17:29	1
Chloroethane	1.0	U	1.0	0.83	ug/L			03/14/19 17:29	1
Chloroform	1.0	U	1.0	0.13	ug/L			03/14/19 17:29	1
Chloromethane	1.0	U	1.0	0.20	ug/L			03/14/19 17:29	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			03/14/19 17:29	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			03/14/19 17:29	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			03/14/19 17:29	1
Chlorodibromomethane	1.0	U	1.0	0.39	ug/L			03/14/19 17:29	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			03/14/19 17:29	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 240-371647/8
Matrix: Water
Analysis Batch: 371647

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	1.0	U	1.0	0.11	ug/L			03/14/19 17:29	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			03/14/19 17:29	1
Methyl acetate	10	U	10	1.7	ug/L			03/14/19 17:29	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			03/14/19 17:29	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			03/14/19 17:29	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			03/14/19 17:29	1
Styrene	1.0	U	1.0	0.10	ug/L			03/14/19 17:29	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			03/14/19 17:29	1
Toluene	1.0	U	1.0	0.14	ug/L			03/14/19 17:29	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			03/14/19 17:29	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			03/14/19 17:29	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			03/14/19 17:29	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			03/14/19 17:29	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			03/14/19 17:29	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			03/14/19 17:29	1
Naphthalene	1.0	U	1.0	0.32	ug/L			03/14/19 17:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*89*		*70 - 123*		*03/14/19 17:29*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 128*		*03/14/19 17:29*	*1*
4-Bromofluorobenzene (Surr)	*93*		*59 - 120*		*03/14/19 17:29*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 121*		*03/14/19 17:29*	*1*

Lab Sample ID: LCS 240-371647/5
Matrix: Water
Analysis Batch: 371647

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	21.4		ug/L		107	69 - 134
1,1,2,2-Tetrachloroethane	20.0	23.5		ug/L		117	65 - 139
1,1,2-Trichloro-1,2,2-trifluoroetha ne	20.0	22.5		ug/L		112	50 - 156
1,1,2-Trichloroethane	20.0	20.8		ug/L		104	78 - 133
1,1-Dichloroethane	20.0	23.4		ug/L		117	75 - 133
1,1-Dichloroethene	20.0	22.7		ug/L		113	65 - 139
1,2,4-Trichlorobenzene	20.0	12.6		ug/L		63	42 - 133
1,2-Dibromo-3-Chloropropane	20.0	16.7		ug/L		83	46 - 132
Ethylene Dibromide	20.0	18.9		ug/L		94	77 - 123
1,2-Dichlorobenzene	20.0	19.1		ug/L		96	78 - 120
1,2-Dichloroethane	20.0	19.7		ug/L		99	71 - 135
1,2-Dichloropropane	20.0	23.3		ug/L		116	78 - 133
1,3-Dichlorobenzene	20.0	19.9		ug/L		100	78 - 120
1,4-Dichlorobenzene	20.0	19.5		ug/L		97	78 - 120
2-Butanone (MEK)	40.0	48.0		ug/L		120	39 - 163
2-Hexanone	40.0	42.9		ug/L		107	43 - 148
4-Methyl-2-pentanone (MIBK)	40.0	46.8		ug/L		117	49 - 143
Acetone	40.0	60.7		ug/L		152	21 - 162
Benzene	20.0	23.1		ug/L		115	80 - 123
Dichlorobromomethane	20.0	21.0		ug/L		105	77 - 125

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 240-371647/5
Matrix: Water
Analysis Batch: 371647

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromoform	20.0	18.9		ug/L		94	49 - 141
Bromomethane	20.0	20.3		ug/L		102	41 - 175
Carbon disulfide	20.0	23.4		ug/L		117	60 - 138
Carbon tetrachloride	20.0	20.4		ug/L		102	63 - 140
Chlorobenzene	20.0	19.9		ug/L		100	80 - 121
Chloroethane	20.0	22.2		ug/L		111	33 - 173
Chloroform	20.0	22.2		ug/L		111	79 - 127
Chloromethane	20.0	22.0		ug/L		110	54 - 143
cis-1,2-Dichloroethene	20.0	23.0		ug/L		115	76 - 128
cis-1,3-Dichloropropene	20.0	21.4		ug/L		107	64 - 132
Cyclohexane	20.0	24.1		ug/L		120	58 - 145
Chlorodibromomethane	20.0	19.9		ug/L		99	70 - 132
Dichlorodifluoromethane	20.0	17.4		ug/L		87	29 - 148
Ethylbenzene	20.0	20.5		ug/L		103	80 - 120
Isopropylbenzene	20.0	20.9		ug/L		104	74 - 120
Methyl acetate	40.0	49.8		ug/L		125	52 - 145
Methyl tert-butyl ether	20.0	21.3		ug/L		107	51 - 133
Methylcyclohexane	20.0	23.0		ug/L		115	60 - 125
Methylene Chloride	20.0	22.9		ug/L		115	70 - 134
Styrene	20.0	20.3		ug/L		101	79 - 120
Tetrachloroethene	20.0	19.1		ug/L		96	74 - 130
Toluene	20.0	20.3		ug/L		102	78 - 129
trans-1,2-Dichloroethene	20.0	23.1		ug/L		116	78 - 133
trans-1,3-Dichloropropene	20.0	17.9		ug/L		90	55 - 128
Trichloroethene	20.0	20.7		ug/L		103	76 - 125
Trichlorofluoromethane	20.0	19.2		ug/L		96	51 - 164
Vinyl chloride	20.0	23.1		ug/L		115	58 - 143
Xylenes, Total	40.0	43.0		ug/L		108	80 - 120
m-Xylene & p-Xylene	20.0	21.4		ug/L		107	80 - 120
o-Xylene	20.0	21.6		ug/L		108	80 - 120
Naphthalene	20.0	13.1		ug/L		65	28 - 141

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*93*		*70 - 123*
Dibromofluoromethane (Surr)	*98*		*75 - 128*
4-Bromofluorobenzene (Surr)	*99*		*59 - 120*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 121*

Lab Sample ID: LCSD 240-371647/6
Matrix: Water
Analysis Batch: 371647

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	21.7		ug/L		108	69 - 134	1	35
1,1,2,2-Tetrachloroethane	20.0	22.6		ug/L		113	65 - 139	4	35
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	23.8		ug/L		119	50 - 156	6	35
1,1,2-Trichloroethane	20.0	20.2		ug/L		101	78 - 133	3	35
1,1-Dichloroethane	20.0	24.3		ug/L		121	75 - 133	4	35

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 240-371647/6
Matrix: Water
Analysis Batch: 371647

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	23.2		ug/L		116	65 - 139	2	35
1,2,4-Trichlorobenzene	20.0	12.4		ug/L		62	42 - 133	2	35
1,2-Dibromo-3-Chloropropane	20.0	16.6		ug/L		83	46 - 132	1	35
Ethylene Dibromide	20.0	18.6		ug/L		93	77 - 123	1	35
1,2-Dichlorobenzene	20.0	18.7		ug/L		94	78 - 120	2	35
1,2-Dichloroethane	20.0	19.6		ug/L		98	71 - 135	1	35
1,2-Dichloropropane	20.0	23.1		ug/L		115	78 - 133	1	35
1,3-Dichlorobenzene	20.0	19.3		ug/L		96	78 - 120	3	35
1,4-Dichlorobenzene	20.0	18.8		ug/L		94	78 - 120	3	35
2-Butanone (MEK)	40.0	47.2		ug/L		118	39 - 163	2	35
2-Hexanone	40.0	40.0		ug/L		100	43 - 148	7	35
4-Methyl-2-pentanone (MIBK)	40.0	44.4		ug/L		111	49 - 143	5	35
Acetone	40.0	62.5		ug/L		156	21 - 162	3	35
Benzene	20.0	23.0		ug/L		115	80 - 123	0	35
Dichlorobromomethane	20.0	20.9		ug/L		104	77 - 125	0	35
Bromoform	20.0	18.6		ug/L		93	49 - 141	2	35
Bromomethane	20.0	20.5		ug/L		103	41 - 175	1	35
Carbon disulfide	20.0	23.6		ug/L		118	60 - 138	1	35
Carbon tetrachloride	20.0	20.8		ug/L		104	63 - 140	2	35
Chlorobenzene	20.0	19.6		ug/L		98	80 - 121	2	35
Chloroethane	20.0	22.6		ug/L		113	33 - 173	2	35
Chloroform	20.0	22.9		ug/L		115	79 - 127	3	35
Chloromethane	20.0	22.4		ug/L		112	54 - 143	2	35
cis-1,2-Dichloroethene	20.0	23.5		ug/L		117	76 - 128	2	35
cis-1,3-Dichloropropene	20.0	20.8		ug/L		104	64 - 132	2	35
Cyclohexane	20.0	24.0		ug/L		120	58 - 145	0	35
Chlorodibromomethane	20.0	19.2		ug/L		96	70 - 132	3	35
Dichlorodifluoromethane	20.0	17.8		ug/L		89	29 - 148	2	35
Ethylbenzene	20.0	20.4		ug/L		102	80 - 120	1	35
Isopropylbenzene	20.0	20.7		ug/L		104	74 - 120	1	35
Methyl acetate	40.0	48.9		ug/L		122	52 - 145	2	35
Methyl tert-butyl ether	20.0	22.0		ug/L		110	51 - 133	3	35
Methylcyclohexane	20.0	22.6		ug/L		113	60 - 125	2	35
Methylene Chloride	20.0	23.5		ug/L		118	70 - 134	3	35
Styrene	20.0	19.9		ug/L		100	79 - 120	2	35
Tetrachloroethene	20.0	18.2		ug/L		91	74 - 130	5	35
Toluene	20.0	19.9		ug/L		100	78 - 129	2	35
trans-1,2-Dichloroethene	20.0	23.8		ug/L		119	78 - 133	3	35
trans-1,3-Dichloropropene	20.0	16.9		ug/L		85	55 - 128	6	35
Trichloroethene	20.0	20.5		ug/L		103	76 - 125	1	35
Trichlorofluoromethane	20.0	19.6		ug/L		98	51 - 164	2	35
Vinyl chloride	20.0	23.8		ug/L		119	58 - 143	3	35
Xylenes, Total	40.0	42.0		ug/L		105	80 - 120	2	35
m-Xylene & p-Xylene	20.0	20.7		ug/L		103	80 - 120	4	35
o-Xylene	20.0	21.3		ug/L		107	80 - 120	1	35
Naphthalene	20.0	12.8		ug/L		64	28 - 141	2	35

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 240-371647/6
Matrix: Water
Analysis Batch: 371647

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*91*		*70 - 123*
Dibromofluoromethane (Surr)	*101*		*75 - 128*
4-Bromofluorobenzene (Surr)	*98*		*59 - 120*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 121*

Lab Sample ID: MB 240-371838/7
Matrix: Water
Analysis Batch: 371838

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			03/15/19 19:22	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			03/15/19 19:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			03/15/19 19:22	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			03/15/19 19:22	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			03/15/19 19:22	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			03/15/19 19:22	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			03/15/19 19:22	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.91	ug/L			03/15/19 19:22	1
Ethylene Dibromide	1.0	U	1.0	0.12	ug/L			03/15/19 19:22	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			03/15/19 19:22	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/15/19 19:22	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			03/15/19 19:22	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			03/15/19 19:22	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			03/15/19 19:22	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			03/15/19 19:22	1
2-Hexanone	10	U	10	0.54	ug/L			03/15/19 19:22	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			03/15/19 19:22	1
Acetone	10	U	10	5.4	ug/L			03/15/19 19:22	1
Benzene	1.0	U	1.0	0.13	ug/L			03/15/19 19:22	1
Dichlorobromomethane	1.0	U	1.0	0.17	ug/L			03/15/19 19:22	1
Bromoform	1.0	U	1.0	0.76	ug/L			03/15/19 19:22	1
Bromomethane	1.0	U	1.0	0.42	ug/L			03/15/19 19:22	1
Carbon disulfide	1.0	U	1.0	0.28	ug/L			03/15/19 19:22	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			03/15/19 19:22	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/15/19 19:22	1
Chloroethane	1.0	U	1.0	0.83	ug/L			03/15/19 19:22	1
Chloroform	1.0	U	1.0	0.13	ug/L			03/15/19 19:22	1
Chloromethane	1.0	U	1.0	0.20	ug/L			03/15/19 19:22	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			03/15/19 19:22	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			03/15/19 19:22	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			03/15/19 19:22	1
Chlorodibromomethane	1.0	U	1.0	0.39	ug/L			03/15/19 19:22	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			03/15/19 19:22	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			03/15/19 19:22	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			03/15/19 19:22	1
Methyl acetate	10	U	10	1.7	ug/L			03/15/19 19:22	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			03/15/19 19:22	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			03/15/19 19:22	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 240-371838/7
Matrix: Water
Analysis Batch: 371838

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	5.0	U	5.0	2.6	ug/L			03/15/19 19:22	1
Styrene	1.0	U	1.0	0.10	ug/L			03/15/19 19:22	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			03/15/19 19:22	1
Toluene	1.0	U	1.0	0.14	ug/L			03/15/19 19:22	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			03/15/19 19:22	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			03/15/19 19:22	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			03/15/19 19:22	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			03/15/19 19:22	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			03/15/19 19:22	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			03/15/19 19:22	1
Naphthalene	1.0	U	1.0	0.32	ug/L			03/15/19 19:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*92*		*70 - 123*		*03/15/19 19:22*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 128*		*03/15/19 19:22*	*1*
4-Bromofluorobenzene (Surr)	*95*		*59 - 120*		*03/15/19 19:22*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 121*		*03/15/19 19:22*	*1*

Lab Sample ID: LCS 240-371838/5
Matrix: Water
Analysis Batch: 371838

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	20.9		ug/L		105	69 - 134
1,1,2,2-Tetrachloroethane	20.0	23.7		ug/L		118	65 - 139
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	23.3		ug/L		117	50 - 156
1,1,2-Trichloroethane	20.0	21.0		ug/L		105	78 - 133
1,1-Dichloroethane	20.0	23.8		ug/L		119	75 - 133
1,1-Dichloroethene	20.0	23.2		ug/L		116	65 - 139
1,2,4-Trichlorobenzene	20.0	13.3		ug/L		66	42 - 133
1,2-Dibromo-3-Chloropropane	20.0	17.6		ug/L		88	46 - 132
Ethylene Dibromide	20.0	18.9		ug/L		94	77 - 123
1,2-Dichlorobenzene	20.0	19.7		ug/L		98	78 - 120
1,2-Dichloroethane	20.0	19.4		ug/L		97	71 - 135
1,2-Dichloropropane	20.0	23.1		ug/L		116	78 - 133
1,3-Dichlorobenzene	20.0	20.3		ug/L		101	78 - 120
1,4-Dichlorobenzene	20.0	19.9		ug/L		99	78 - 120
2-Butanone (MEK)	40.0	45.6		ug/L		114	39 - 163
2-Hexanone	40.0	40.7		ug/L		102	43 - 148
4-Methyl-2-pentanone (MIBK)	40.0	44.3		ug/L		111	49 - 143
Acetone	40.0	58.6		ug/L		146	21 - 162
Benzene	20.0	23.3		ug/L		117	80 - 123
Dichlorobromomethane	20.0	20.5		ug/L		103	77 - 125
Bromoform	20.0	19.1		ug/L		96	49 - 141
Bromomethane	20.0	21.0		ug/L		105	41 - 175
Carbon disulfide	20.0	23.6		ug/L		118	60 - 138
Carbon tetrachloride	20.0	20.0		ug/L		100	63 - 140
Chlorobenzene	20.0	20.1		ug/L		100	80 - 121

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 240-371838/5
Matrix: Water
Analysis Batch: 371838

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	20.0	24.0		ug/L		120	33 - 173
Chloroform	20.0	23.0		ug/L		115	79 - 127
Chloromethane	20.0	22.5		ug/L		113	54 - 143
cis-1,2-Dichloroethene	20.0	23.7		ug/L		118	76 - 128
cis-1,3-Dichloropropene	20.0	20.8		ug/L		104	64 - 132
Cyclohexane	20.0	23.5		ug/L		117	58 - 145
Chlorodibromomethane	20.0	19.8		ug/L		99	70 - 132
Dichlorodifluoromethane	20.0	17.7		ug/L		89	29 - 148
Ethylbenzene	20.0	20.8		ug/L		104	80 - 120
Isopropylbenzene	20.0	21.3		ug/L		107	74 - 120
Methyl acetate	40.0	48.9		ug/L		122	52 - 145
Methyl tert-butyl ether	20.0	21.9		ug/L		110	51 - 133
Methylcyclohexane	20.0	22.5		ug/L		112	60 - 125
Methylene Chloride	20.0	23.2		ug/L		116	70 - 134
Styrene	20.0	20.4		ug/L		102	79 - 120
Tetrachloroethene	20.0	18.9		ug/L		94	74 - 130
Toluene	20.0	20.6		ug/L		103	78 - 129
trans-1,2-Dichloroethene	20.0	23.7		ug/L		119	78 - 133
trans-1,3-Dichloropropene	20.0	17.0		ug/L		85	55 - 128
Trichloroethene	20.0	20.5		ug/L		102	76 - 125
Trichlorofluoromethane	20.0	18.8		ug/L		94	51 - 164
Vinyl chloride	20.0	24.1		ug/L		121	58 - 143
Xylenes, Total	40.0	43.3		ug/L		108	80 - 120
m-Xylene & p-Xylene	20.0	21.2		ug/L		106	80 - 120
o-Xylene	20.0	22.1		ug/L		110	80 - 120
Naphthalene	20.0	14.0		ug/L		70	28 - 141

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*92*		*70 - 123*
Dibromofluoromethane (Surr)	*99*		*75 - 128*
4-Bromofluorobenzene (Surr)	*100*		*59 - 120*
1,2-Dichloroethane-d4 (Surr)	*91*		*70 - 121*

Lab Sample ID: 240-109180-29 MS
Matrix: Water
Analysis Batch: 371838

Client Sample ID: IMW-02-0004S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	1.0	U	20.0	20.3		ug/L		102	51 - 138
1,1,2,2-Tetrachloroethane	1.0	U	20.0	22.3		ug/L		112	60 - 137
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	20.0	22.1		ug/L		110	31 - 156
1,1,2-Trichloroethane	1.0	U	20.0	20.5		ug/L		102	76 - 132
1,1-Dichloroethane	1.0	U	20.0	23.0		ug/L		115	63 - 136
1,1-Dichloroethene	1.0	U	20.0	21.8		ug/L		109	53 - 140
1,2,4-Trichlorobenzene	1.0	U	20.0	13.2		ug/L		66	30 - 126
1,2-Dibromo-3-Chloropropane	2.0	U	20.0	16.9		ug/L		84	38 - 124
Ethylene Dibromide	1.0	U	20.0	18.5		ug/L		93	71 - 123
1,2-Dichlorobenzene	1.0	U	20.0	19.0		ug/L		95	64 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 240-109180-29 MS
Matrix: Water
Analysis Batch: 371838

Client Sample ID: IMW-02-0004S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	1.0	U	20.0	18.6		ug/L		93	65 - 135
1,2-Dichloropropane	1.0	U	20.0	22.8		ug/L		114	70 - 132
1,3-Dichlorobenzene	1.0	U	20.0	19.2		ug/L		96	62 - 120
1,4-Dichlorobenzene	1.0	U	20.0	19.0		ug/L		95	63 - 120
2-Butanone (MEK)	10	U	40.0	48.5		ug/L		121	37 - 156
2-Hexanone	10	U	40.0	40.8		ug/L		102	42 - 150
4-Methyl-2-pentanone (MIBK)	10	U	40.0	45.0		ug/L		112	44 - 143
Acetone	10	U	40.0	54.7		ug/L		137	10 - 168
Benzene	1.0	U	20.0	22.8		ug/L		114	71 - 122
Dichlorobromomethane	1.0	U	20.0	20.1		ug/L		100	64 - 125
Bromoform	1.0	U	20.0	17.9		ug/L		89	44 - 129
Bromomethane	1.0	U	20.0	20.3		ug/L		102	19 - 187
Carbon disulfide	1.0	U	20.0	22.1		ug/L		111	43 - 144
Carbon tetrachloride	1.0	U	20.0	19.3		ug/L		97	41 - 143
Chlorobenzene	1.0	U	20.0	19.5		ug/L		97	70 - 123
Chloroethane	1.0	U	20.0	22.1		ug/L		111	11 - 189
Chloroform	1.0	U	20.0	21.8		ug/L		109	68 - 130
Chloromethane	1.0	U	20.0	22.4		ug/L		112	31 - 154
cis-1,2-Dichloroethene	28		20.0	50.1		ug/L		110	64 - 130
cis-1,3-Dichloropropene	1.0	U	20.0	20.5		ug/L		103	48 - 127
Cyclohexane	1.0	U	20.0	22.9		ug/L		115	42 - 135
Chlorodibromomethane	1.0	U	20.0	18.5		ug/L		93	60 - 129
Dichlorodifluoromethane	1.0	U	20.0	17.9		ug/L		89	28 - 136
Ethylbenzene	1.0	U	20.0	20.0		ug/L		100	66 - 120
Isopropylbenzene	1.0	U	20.0	20.7		ug/L		104	59 - 120
Methyl acetate	10	U	40.0	46.2		ug/L		115	41 - 142
Methyl tert-butyl ether	1.0	U	20.0	20.7		ug/L		104	41 - 136
Methylcyclohexane	1.0	U	20.0	22.0		ug/L		110	37 - 123
Methylene Chloride	5.0	U	20.0	21.6		ug/L		108	61 - 130
Styrene	1.0	U	20.0	19.5		ug/L		98	68 - 120
Tetrachloroethene	12		20.0	29.9		ug/L		89	51 - 136
Toluene	1.0	U	20.0	19.9		ug/L		100	62 - 132
trans-1,2-Dichloroethene	0.68	J	20.0	22.9		ug/L		111	68 - 133
trans-1,3-Dichloropropene	1.0	U	20.0	16.8		ug/L		84	40 - 125
Trichloroethene	4.1		20.0	24.0		ug/L		99	55 - 131
Trichlorofluoromethane	1.0	U	20.0	18.6		ug/L		93	37 - 174
Vinyl chloride	0.31	J	20.0	23.6		ug/L		116	43 - 154
Xylenes, Total	2.0	U	40.0	41.7		ug/L		104	67 - 120
m-Xylene & p-Xylene	2.0	U	20.0	20.6		ug/L		103	63 - 121
o-Xylene	1.0	U	20.0	21.1		ug/L		105	69 - 120
Naphthalene	1.0	U	20.0	14.2		ug/L		71	31 - 142

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*91*		*70 - 123*
Dibromofluoromethane (Surr)	*95*		*75 - 128*
4-Bromofluorobenzene (Surr)	*97*		*59 - 120*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 121*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 240-109180-29 MSD
Matrix: Water
Analysis Batch: 371838

Client Sample ID: IMW-02-0004S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	1.0	U	20.0	20.4		ug/L		102	51 - 138	1	27
1,1,2,2-Tetrachloroethane	1.0	U	20.0	22.7		ug/L		113	60 - 137	1	31
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	20.0	22.5		ug/L		113	31 - 156	2	35
1,1,2-Trichloroethane	1.0	U	20.0	19.5		ug/L		97	76 - 132	5	25
1,1-Dichloroethane	1.0	U	20.0	23.3		ug/L		116	63 - 136	1	23
1,1-Dichloroethene	1.0	U	20.0	22.3		ug/L		111	53 - 140	2	35
1,2,4-Trichlorobenzene	1.0	U	20.0	12.8		ug/L		64	30 - 126	3	35
1,2-Dibromo-3-Chloropropane	2.0	U	20.0	16.3		ug/L		81	38 - 124	4	35
Ethylene Dibromide	1.0	U	20.0	18.0		ug/L		90	71 - 123	3	27
1,2-Dichlorobenzene	1.0	U	20.0	18.6		ug/L		93	64 - 120	2	30
1,2-Dichloroethane	1.0	U	20.0	18.5		ug/L		93	65 - 135	0	24
1,2-Dichloropropane	1.0	U	20.0	21.7		ug/L		108	70 - 132	5	26
1,3-Dichlorobenzene	1.0	U	20.0	18.8		ug/L		94	62 - 120	2	31
1,4-Dichlorobenzene	1.0	U	20.0	18.7		ug/L		93	63 - 120	2	28
2-Butanone (MEK)	10	U	40.0	45.5		ug/L		114	37 - 156	6	35
2-Hexanone	10	U	40.0	38.8		ug/L		97	42 - 150	5	35
4-Methyl-2-pentanone (MIBK)	10	U	40.0	41.7		ug/L		104	44 - 143	8	35
Acetone	10	U	40.0	57.8		ug/L		145	10 - 168	6	35
Benzene	1.0	U	20.0	22.5		ug/L		112	71 - 122	1	22
Dichlorobromomethane	1.0	U	20.0	19.9		ug/L		99	64 - 125	1	27
Bromoform	1.0	U	20.0	17.5		ug/L		88	44 - 129	2	28
Bromomethane	1.0	U	20.0	20.1		ug/L		101	19 - 187	1	35
Carbon disulfide	1.0	U	20.0	22.9		ug/L		114	43 - 144	3	33
Carbon tetrachloride	1.0	U	20.0	19.2		ug/L		96	41 - 143	1	30
Chlorobenzene	1.0	U	20.0	19.0		ug/L		95	70 - 123	2	23
Chloroethane	1.0	U	20.0	22.6		ug/L		113	11 - 189	2	35
Chloroform	1.0	U	20.0	22.1		ug/L		111	68 - 130	2	23
Chloromethane	1.0	U	20.0	22.6		ug/L		113	31 - 154	1	35
cis-1,2-Dichloroethene	28		20.0	52.0		ug/L		119	64 - 130	4	21
cis-1,3-Dichloropropene	1.0	U	20.0	19.4		ug/L		97	48 - 127	6	30
Cyclohexane	1.0	U	20.0	23.2		ug/L		116	42 - 135	1	35
Chlorodibromomethane	1.0	U	20.0	18.4		ug/L		92	60 - 129	0	26
Dichlorodifluoromethane	1.0	U	20.0	17.0		ug/L		85	28 - 136	5	35
Ethylbenzene	1.0	U	20.0	19.9		ug/L		99	66 - 120	1	24
Isopropylbenzene	1.0	U	20.0	20.3		ug/L		101	59 - 120	2	31
Methyl acetate	10	U	40.0	46.4		ug/L		116	41 - 142	1	35
Methyl tert-butyl ether	1.0	U	20.0	21.2		ug/L		106	41 - 136	2	29
Methylcyclohexane	1.0	U	20.0	21.9		ug/L		109	37 - 123	1	35
Methylene Chloride	5.0	U	20.0	22.3		ug/L		111	61 - 130	3	29
Styrene	1.0	U	20.0	19.1		ug/L		96	68 - 120	2	26
Tetrachloroethene	12		20.0	29.5		ug/L		87	51 - 136	2	23
Toluene	1.0	U	20.0	19.5		ug/L		97	62 - 132	2	23
trans-1,2-Dichloroethene	0.68	J	20.0	23.5		ug/L		114	68 - 133	3	24
trans-1,3-Dichloropropene	1.0	U	20.0	16.4		ug/L		82	40 - 125	2	27
Trichloroethene	4.1		20.0	23.8		ug/L		99	55 - 131	1	23
Trichlorofluoromethane	1.0	U	20.0	18.5		ug/L		92	37 - 174	0	35
Vinyl chloride	0.31	J	20.0	23.4		ug/L		116	43 - 154	1	29
Xylenes, Total	2.0	U	40.0	41.0		ug/L		103	67 - 120	2	25

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 240-109180-29 MSD
Matrix: Water
Analysis Batch: 371838

Client Sample ID: IMW-02-0004S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
m-Xylene & p-Xylene	2.0	U	20.0	20.1		ug/L		101	63 - 121	2	25
o-Xylene	1.0	U	20.0	20.9		ug/L		105	69 - 120	1	25
Naphthalene	1.0	U	20.0	13.7		ug/L		69	31 - 142	3	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*91*		*70 - 123*
Dibromofluoromethane (Surr)	*97*		*75 - 128*
4-Bromofluorobenzene (Surr)	*95*		*59 - 120*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 121*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-370982/23-A
Matrix: Solid
Analysis Batch: 371550

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 370982

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	50	U	50	17	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
bis (2-chloroisopropyl) ether	100	U	100	10	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
2,4,5-Trichlorophenol	150	U	150	69	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
2,4,6-Trichlorophenol	150	U	150	64	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
2,4-Dichlorophenol	150	U	150	44	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
2,4-Dimethylphenol	150	U	150	40	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
2,4-Dinitrophenol	330	U	330	140	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
2,4-Dinitrotoluene	200	U	200	62	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
2,6-Dinitrotoluene	200	U	200	56	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
2-Chloronaphthalene	50	U	50	14	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
2-Chlorophenol	50	U	50	10	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
2-Methylnaphthalene	15	U	15	2.0	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
2-Methylphenol	200	U	200	31	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
2-Nitroaniline	200	U	200	40	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
2-Nitrophenol	50	U	50	13	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
3,3'-Dichlorobenzidine	100	U	100	43	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
3-Nitroaniline	200	U	200	49	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
4,6-Dinitro-2-methylphenol	330	U	330	80	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
4-Bromophenyl phenyl ether	50	U	50	14	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
4-Chloro-3-methylphenol	150	U	150	45	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
4-Chloroaniline	150	U	150	30	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
4-Chlorophenyl phenyl ether	50	U	50	14	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
4-Nitroaniline	200	U	200	60	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
4-Nitrophenol	330	U	330	94	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Acenaphthene	15	U	15	2.9	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Acenaphthylene	15	U	15	4.0	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Acetophenone	100	U	100	11	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Anthracene	15	U	15	2.4	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Atrazine	200	U	200	36	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Benzaldehyde	100	U	100	23	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Benzo[a]anthracene	15	U	15	3.4	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Benzo[a]pyrene	15	U	15	9.3	ug/Kg		03/11/19 07:19	03/14/19 15:34	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-370982/23-A
Matrix: Solid
Analysis Batch: 371550

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 370982

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	15	U	15	6.5	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Benzo[g,h,i]perylene	15	U	15	7.1	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Benzo[k]fluoranthene	15	U	15	6.9	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Bis(2-chloroethoxy)methane	100	U	100	12	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Bis(2-chloroethyl)ether	100	U	100	12	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Bis(2-ethylhexyl) phthalate	70	U	70	51	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Butyl benzyl phthalate	70	U	70	22	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Caprolactam	330	U	330	75	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Carbazole	50	U	50	19	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Chrysene	15	U	15	1.5	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Dibenz(a,h)anthracene	15	U	15	6.9	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Dibenzofuran	50	U	50	13	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Diethyl phthalate	70	U	70	31	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Dimethyl phthalate	70	U	70	14	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Di-n-butyl phthalate	70	U	70	22	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Di-n-octyl phthalate	70	U	70	28	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Fluoranthene	15	U	15	4.5	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Fluorene	15	U	15	2.7	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Hexachlorobenzene	15	U	15	2.9	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Hexachlorobutadiene	50	U	50	12	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Hexachlorocyclopentadiene	330	U	330	62	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Hexachloroethane	50	U	50	9.0	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Indeno[1,2,3-cd]pyrene	15	U	15	7.4	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Isophorone	50	U	50	12	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Naphthalene	15	U	15	2.4	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Nitrobenzene	100	U	100	13	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
N-Nitrosodi-n-propylamine	50	U	50	11	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
N-Nitrosodiphenylamine	50	U	50	12	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Pentachlorophenol	150	U	150	58	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Phenol	50	U	50	8.0	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Phenanthrene	15	U	15	2.2	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
Pyrene	15	U	15	2.1	ug/Kg		03/11/19 07:19	03/14/19 15:34	1
3 & 4 Methylphenol	400	U	400	29	ug/Kg		03/11/19 07:19	03/14/19 15:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*68*		*32 - 120*	*03/11/19 07:19*	*03/14/19 15:34*	*1*
2-Fluorophenol (Surr)	*65*		*29 - 120*	*03/11/19 07:19*	*03/14/19 15:34*	*1*
2,4,6-Tribromophenol (Surr)	*31*		*10 - 120*	*03/11/19 07:19*	*03/14/19 15:34*	*1*
Nitrobenzene-d5 (Surr)	*69*		*30 - 120*	*03/11/19 07:19*	*03/14/19 15:34*	*1*
Phenol-d5 (Surr)	*72*		*29 - 120*	*03/11/19 07:19*	*03/14/19 15:34*	*1*
Terphenyl-d14 (Surr)	*78*		*41 - 120*	*03/11/19 07:19*	*03/14/19 15:34*	*1*

Lab Sample ID: LCS 240-370982/24-A
Matrix: Solid
Analysis Batch: 371701

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 370982

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	667	588		ug/Kg		88	48 - 120

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-370982/24-A
Matrix: Solid
Analysis Batch: 371701

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 370982

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
bis (2-chloroisopropyl) ether	667	565		ug/Kg		85	37 - 120
2,4,5-Trichlorophenol	667	608		ug/Kg		91	34 - 120
2,4,6-Trichlorophenol	667	554		ug/Kg		83	19 - 120
2,4-Dichlorophenol	667	590		ug/Kg		88	48 - 120
2,4-Dimethylphenol	667	475		ug/Kg		71	37 - 120
2,4-Dinitrophenol	1330	282	J	ug/Kg		21	10 - 120
2,4-Dinitrotoluene	667	628		ug/Kg		94	53 - 120
2,6-Dinitrotoluene	667	631		ug/Kg		95	54 - 120
2-Chloronaphthalene	667	568		ug/Kg		85	49 - 120
2-Chlorophenol	667	598		ug/Kg		90	50 - 120
2-Methylnaphthalene	667	641		ug/Kg		96	49 - 120
2-Methylphenol	667	577		ug/Kg		87	49 - 120
2-Nitroaniline	667	610		ug/Kg		91	46 - 120
2-Nitrophenol	667	669		ug/Kg		100	46 - 120
3,3'-Dichlorobenzidine	1330	878		ug/Kg		66	40 - 120
3-Nitroaniline	667	472		ug/Kg		71	48 - 120
4,6-Dinitro-2-methylphenol	1330	750		ug/Kg		56	18 - 120
4-Bromophenyl phenyl ether	667	669		ug/Kg		100	51 - 120
4-Chloro-3-methylphenol	667	677		ug/Kg		102	47 - 120
4-Chloroaniline	667	356		ug/Kg		53	37 - 120
4-Chlorophenyl phenyl ether	667	539		ug/Kg		81	49 - 120
4-Nitroaniline	667	511		ug/Kg		77	49 - 120
4-Nitrophenol	1330	907		ug/Kg		68	42 - 120
Acenaphthene	667	615		ug/Kg		92	48 - 120
Acenaphthylene	667	602		ug/Kg		90	46 - 120
Acetophenone	667	584		ug/Kg		88	46 - 120
Anthracene	667	647		ug/Kg		97	51 - 120
Atrazine	1330	1420		ug/Kg		107	57 - 120
Benzaldehyde	1330	1240		ug/Kg		93	48 - 120
Benzo[a]anthracene	667	635		ug/Kg		95	53 - 120
Benzo[a]pyrene	667	615		ug/Kg		92	50 - 120
Benzo[b]fluoranthene	667	670		ug/Kg		100	48 - 120
Benzo[g,h,i]perylene	667	736		ug/Kg		110	50 - 120
Benzo[k]fluoranthene	667	646		ug/Kg		97	51 - 120
Bis(2-chloroethoxy)methane	667	603		ug/Kg		90	50 - 120
Bis(2-chloroethyl)ether	667	596		ug/Kg		89	48 - 120
Bis(2-ethylhexyl) phthalate	667	702		ug/Kg		105	52 - 120
Butyl benzyl phthalate	667	659		ug/Kg		99	53 - 120
Caprolactam	1330	1390		ug/Kg		104	59 - 120
Carbazole	667	643		ug/Kg		96	56 - 120
Chrysene	667	608		ug/Kg		91	54 - 120
Dibenz(a,h)anthracene	667	627		ug/Kg		94	48 - 120
Dibenzofuran	667	578		ug/Kg		87	49 - 120
Diethyl phthalate	667	621		ug/Kg		93	52 - 120
Dimethyl phthalate	667	633		ug/Kg		95	53 - 120
Di-n-butyl phthalate	667	668		ug/Kg		100	56 - 120
Di-n-octyl phthalate	667	579		ug/Kg		87	42 - 120
Fluoranthene	667	665		ug/Kg		100	53 - 120
Fluorene	667	550		ug/Kg		82	50 - 120

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-370982/24-A
Matrix: Solid
Analysis Batch: 371701

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 370982

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hexachlorobenzene	667	661		ug/Kg		99	46 - 120
Hexachlorobutadiene	667	593		ug/Kg		89	44 - 120
Hexachlorocyclopentadiene	667	317	J	ug/Kg		48	14 - 120
Hexachloroethane	667	591		ug/Kg		89	45 - 120
Indeno[1,2,3-cd]pyrene	667	649		ug/Kg		97	49 - 120
Isophorone	667	613		ug/Kg		92	47 - 120
Naphthalene	667	594		ug/Kg		89	48 - 120
Nitrobenzene	667	615		ug/Kg		92	48 - 120
N-Nitrosodi-n-propylamine	667	576		ug/Kg		86	49 - 120
N-Nitrosodiphenylamine	667	633		ug/Kg		95	53 - 120
Pentachlorophenol	1330	739		ug/Kg		55	14 - 120
Phenol	667	642		ug/Kg		96	49 - 120
Phenanthrene	667	628		ug/Kg		94	52 - 120
Pyrene	667	628		ug/Kg		94	55 - 120
3 & 4 Methylphenol	667	577		ug/Kg		86	50 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*86*		*32 - 120*
2-Fluorophenol (Surr)	*93*		*29 - 120*
2,4,6-Tribromophenol (Surr)	*75*		*10 - 120*
Nitrobenzene-d5 (Surr)	*91*		*30 - 120*
Phenol-d5 (Surr)	*98*		*29 - 120*
Terphenyl-d14 (Surr)	*101*		*41 - 120*

Lab Sample ID: 240-109180-7 MS
Matrix: Solid
Analysis Batch: 371550

Client Sample ID: 9584-030519-0001
Prep Type: Total/NA
Prep Batch: 370982

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	270	U	709	604		ug/Kg	☼	85	33 - 120
bis (2-chloroisopropyl) ether	530	U	709	522	J	ug/Kg	☼	74	26 - 120
2,4,5-Trichlorophenol	800	U F1	709	800	U F1	ug/Kg	☼	0	20 - 120
2,4,6-Trichlorophenol	800	U F1	709	800	U F1	ug/Kg	☼	0	19 - 120
2,4-Dichlorophenol	800	U	709	400	J	ug/Kg	☼	56	32 - 120
2,4-Dimethylphenol	800	U	709	540	J	ug/Kg	☼	76	28 - 120
2,4-Dinitrophenol	1800	U F1	1420	1800	U F1	ug/Kg	☼	0	10 - 120
2,4-Dinitrotoluene	1100	U	709	503	J	ug/Kg	☼	71	38 - 120
2,6-Dinitrotoluene	1100	U	709	545	J	ug/Kg	☼	77	43 - 120
2-Chloronaphthalene	270	U	709	574		ug/Kg	☼	81	35 - 120
2-Chlorophenol	270	U	709	533		ug/Kg	☼	75	30 - 120
2-Methylnaphthalene	110		709	699		ug/Kg	☼	84	31 - 120
2-Methylphenol	1100	U	709	626	J	ug/Kg	☼	88	31 - 120
2-Nitroaniline	1100	U	709	558	J	ug/Kg	☼	79	29 - 120
2-Nitrophenol	270	U	709	233	J	ug/Kg	☼	33	26 - 120
3,3'-Dichlorobenzidine	530	U	1420	893		ug/Kg	☼	63	10 - 120
3-Nitroaniline	1100	U	709	518	J	ug/Kg	☼	73	21 - 120
4,6-Dinitro-2-methylphenol	1800	U	1420	467	J	ug/Kg	☼	33	10 - 120
4-Bromophenyl phenyl ether	270	U	709	756		ug/Kg	☼	107	44 - 120

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-109180-7 MS
Matrix: Solid
Analysis Batch: 371550

Client Sample ID: 9584-030519-0001
Prep Type: Total/NA
Prep Batch: 370982

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloro-3-methylphenol	800	U	709	516	J	ug/Kg	☼	73	31 - 120
4-Chloroaniline	800	U	709	407	J	ug/Kg	☼	57	15 - 120
4-Chlorophenyl phenyl ether	270	U	709	581		ug/Kg	☼	82	41 - 120
4-Nitroaniline	1100	U	709	532	J	ug/Kg	☼	75	23 - 120
4-Nitrophenol	1800	U F1	1420	1800	U F1	ug/Kg	☼	0	32 - 120
Acenaphthene	28	J	709	611		ug/Kg	☼	82	36 - 120
Acenaphthylene	80	U	709	578		ug/Kg	☼	81	35 - 120
Acetophenone	530	U	709	601		ug/Kg	☼	85	31 - 120
Anthracene	86		709	696		ug/Kg	☼	86	42 - 120
Atrazine	1100	U	1420	1580		ug/Kg	☼	112	41 - 120
Benzaldehyde	530	U	1420	1070		ug/Kg	☼	76	28 - 120
Benzo[a]anthracene	280		709	828		ug/Kg	☼	77	35 - 120
Benzo[a]pyrene	220		709	753		ug/Kg	☼	75	33 - 120
Benzo[b]fluoranthene	430		709	949		ug/Kg	☼	74	26 - 120
Benzo[g,h,i]perylene	240		709	750		ug/Kg	☼	72	16 - 120
Benzo[k]fluoranthene	130		709	682		ug/Kg	☼	78	33 - 120
Bis(2-chloroethoxy)methane	530	U	709	583		ug/Kg	☼	82	36 - 120
Bis(2-chloroethyl)ether	530	U	709	553		ug/Kg	☼	78	33 - 120
Bis(2-ethylhexyl) phthalate	370	U F1	709	1010	F1	ug/Kg	☼	142	40 - 120
Butyl benzyl phthalate	370	U	709	665		ug/Kg	☼	94	46 - 120
Caprolactam	1800	U	1420	1140	J	ug/Kg	☼	80	33 - 128
Carbazole	270	U	709	631		ug/Kg	☼	89	35 - 120
Chrysene	380		709	878		ug/Kg	☼	70	33 - 120
Dibenz(a,h)anthracene	80	U	709	606		ug/Kg	☼	86	30 - 120
Dibenzofuran	82	J	709	651		ug/Kg	☼	80	37 - 120
Diethyl phthalate	370	U	709	614		ug/Kg	☼	87	44 - 120
Dimethyl phthalate	370	U	709	606		ug/Kg	☼	85	42 - 120
Di-n-butyl phthalate	370	U	709	618		ug/Kg	☼	87	45 - 120
Di-n-octyl phthalate	370	U	709	632		ug/Kg	☼	89	35 - 120
Fluoranthene	730		709	1300		ug/Kg	☼	82	26 - 121
Fluorene	32	J	709	610		ug/Kg	☼	82	36 - 120
Hexachlorobenzene	80	U	709	675		ug/Kg	☼	95	36 - 120
Hexachlorobutadiene	270	U	709	511		ug/Kg	☼	72	31 - 120
Hexachlorocyclopentadiene	1800	U F1	709	1800	U F1	ug/Kg	☼	0	10 - 120
Hexachloroethane	270	U	709	414		ug/Kg	☼	58	15 - 120
Indeno[1,2,3-cd]pyrene	180		709	688		ug/Kg	☼	72	24 - 120
Isophorone	270	U	709	572		ug/Kg	☼	81	34 - 120
Naphthalene	150		709	692		ug/Kg	☼	77	29 - 120
Nitrobenzene	530	U	709	555		ug/Kg	☼	78	33 - 120
N-Nitrosodi-n-propylamine	270	U	709	574		ug/Kg	☼	81	32 - 120
N-Nitrosodiphenylamine	270	U	709	744		ug/Kg	☼	105	29 - 120
Pentachlorophenol	800	U F1	1420	800	U F1	ug/Kg	☼	0	10 - 120
Phenol	270	U	709	551		ug/Kg	☼	78	21 - 120
Phenanthrene	460		709	978		ug/Kg	☼	72	28 - 120
Pyrene	660		709	1180		ug/Kg	☼	73	28 - 120
3 & 4 Methylphenol	2100	U	709	618	J	ug/Kg	☼	87	33 - 120

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-109180-7 MS
Matrix: Solid
Analysis Batch: 371550

Client Sample ID: 9584-030519-0001
Prep Type: Total/NA
Prep Batch: 370982

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*81*		*32 - 120*
2-Fluorophenol (Surr)	*74*		*29 - 120*
2,4,6-Tribromophenol (Surr)	*27*		*10 - 120*
Nitrobenzene-d5 (Surr)	*77*		*30 - 120*
Phenol-d5 (Surr)	*82*		*29 - 120*
Terphenyl-d14 (Surr)	*86*		*41 - 120*

Lab Sample ID: 240-109180-7 MSD
Matrix: Solid
Analysis Batch: 371550

Client Sample ID: 9584-030519-0001
Prep Type: Total/NA
Prep Batch: 370982

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1'-Biphenyl	270	U	716	625		ug/Kg	☼	87	33 - 120	3	33
bis (2-chloroisopropyl) ether	530	U	716	528	J	ug/Kg	☼	74	26 - 120	1	31
2,4,5-Trichlorophenol	800	U F1	716	810	U F1	ug/Kg	☼	0	20 - 120	NC	38
2,4,6-Trichlorophenol	800	U F1	716	810	U F1	ug/Kg	☼	0	19 - 120	NC	36
2,4-Dichlorophenol	800	U	716	362	J	ug/Kg	☼	51	32 - 120	10	32
2,4-Dimethylphenol	800	U	716	566	J	ug/Kg	☼	79	28 - 120	5	35
2,4-Dinitrophenol	1800	U F1	1430	1800	U F1	ug/Kg	☼	0	10 - 120	NC	40
2,4-Dinitrotoluene	1100	U	716	570	J	ug/Kg	☼	80	38 - 120	13	27
2,6-Dinitrotoluene	1100	U	716	528	J	ug/Kg	☼	74	43 - 120	3	31
2-Chloronaphthalene	270	U	716	587		ug/Kg	☼	82	35 - 120	2	30
2-Chlorophenol	270	U	716	502		ug/Kg	☼	70	30 - 120	6	37
2-Methylnaphthalene	110		716	694		ug/Kg	☼	82	31 - 120	1	33
2-Methylphenol	1100	U	716	655	J	ug/Kg	☼	92	31 - 120	5	36
2-Nitroaniline	1100	U	716	455	J	ug/Kg	☼	64	29 - 120	20	31
2-Nitrophenol	270	U	716	254	J	ug/Kg	☼	36	26 - 120	9	38
3,3'-Dichlorobenzidine	530	U	1430	1070		ug/Kg	☼	74	10 - 120	18	40
3-Nitroaniline	1100	U	716	507	J	ug/Kg	☼	71	21 - 120	2	40
4,6-Dinitro-2-methylphenol	1800	U	1430	492	J	ug/Kg	☼	34	10 - 120	5	40
4-Bromophenyl phenyl ether	270	U	716	640		ug/Kg	☼	89	44 - 120	17	40
4-Chloro-3-methylphenol	800	U	716	497	J	ug/Kg	☼	69	31 - 120	4	25
4-Chloroaniline	800	U	716	380	J	ug/Kg	☼	53	15 - 120	7	36
4-Chlorophenyl phenyl ether	270	U	716	688		ug/Kg	☼	96	41 - 120	17	40
4-Nitroaniline	1100	U	716	644	J	ug/Kg	☼	90	23 - 120	19	40
4-Nitrophenol	1800	U F1	1430	1800	U F1	ug/Kg	☼	0	32 - 120	NC	31
Acenaphthene	28	J	716	619		ug/Kg	☼	83	36 - 120	1	28
Acenaphthylene	80	U	716	589		ug/Kg	☼	82	35 - 120	2	26
Acetophenone	530	U	716	620		ug/Kg	☼	87	31 - 120	3	40
Anthracene	86		716	625		ug/Kg	☼	75	42 - 120	11	32
Atrazine	1100	U	1430	1340		ug/Kg	☼	94	41 - 120	17	26
Benzaldehyde	530	U	1430	1190		ug/Kg	☼	83	28 - 120	10	40
Benzo[a]anthracene	280		716	783		ug/Kg	☼	70	35 - 120	5	40
Benzo[a]pyrene	220		716	709		ug/Kg	☼	68	33 - 120	6	40
Benzo[b]fluoranthene	430		716	865		ug/Kg	☼	61	26 - 120	9	40
Benzo[g,h,i]perylene	240		716	699		ug/Kg	☼	64	16 - 120	7	40
Benzo[k]fluoranthene	130		716	681		ug/Kg	☼	78	33 - 120	0	40
Bis(2-chloroethoxy)methane	530	U	716	532	J	ug/Kg	☼	74	36 - 120	9	33

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-109180-7 MSD — **Client Sample ID: 9584-030519-0001**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371550 — **Prep Batch: 370982**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bis(2-chloroethyl)ether	530	U	716	513	J	ug/Kg	☼	72	33 - 120	7	36
Bis(2-ethylhexyl) phthalate	370	U F1	716	1110	F1	ug/Kg	☼	155	40 - 120	10	28
Butyl benzyl phthalate	370	U	716	744		ug/Kg	☼	104	46 - 120	11	39
Caprolactam	1800	U	1430	1080	J	ug/Kg	☼	76	33 - 128	5	40
Carbazole	270	U	716	641		ug/Kg	☼	90	35 - 120	2	34
Chrysene	380		716	799		ug/Kg	☼	59	33 - 120	9	40
Dibenz(a,h)anthracene	80	U	716	612		ug/Kg	☼	85	30 - 120	1	40
Dibenzofuran	82	J	716	588		ug/Kg	☼	71	37 - 120	10	28
Diethyl phthalate	370	U	716	673		ug/Kg	☼	94	44 - 120	9	26
Dimethyl phthalate	370	U	716	560		ug/Kg	☼	78	42 - 120	8	35
Di-n-butyl phthalate	370	U	716	627		ug/Kg	☼	88	45 - 120	1	28
Di-n-octyl phthalate	370	U	716	633		ug/Kg	☼	88	35 - 120	0	33
Fluoranthene	730		716	1210		ug/Kg	☼	67	26 - 121	8	40
Fluorene	32	J	716	663		ug/Kg	☼	88	36 - 120	8	28
Hexachlorobenzene	80	U	716	615		ug/Kg	☼	86	36 - 120	9	25
Hexachlorobutadiene	270	U	716	535		ug/Kg	☼	75	31 - 120	5	35
Hexachlorocyclopentadiene	1800	U F1	716	1800	U F1	ug/Kg	☼	0	10 - 120	NC	40
Hexachloroethane	270	U	716	447		ug/Kg	☼	62	15 - 120	8	40
Indeno[1,2,3-cd]pyrene	180		716	690		ug/Kg	☼	71	24 - 120	0	40
Isophorone	270	U	716	660		ug/Kg	☼	92	34 - 120	14	32
Naphthalene	150		716	623		ug/Kg	☼	67	29 - 120	10	34
Nitrobenzene	530	U	716	729		ug/Kg	☼	102	33 - 120	27	40
N-Nitrosodi-n-propylamine	270	U	716	511		ug/Kg	☼	71	32 - 120	12	32
N-Nitrosodiphenylamine	270	U	716	598		ug/Kg	☼	83	29 - 120	22	30
Pentachlorophenol	800	U F1	1430	810	U F1	ug/Kg	☼	0	10 - 120	NC	40
Phenol	270	U	716	552		ug/Kg	☼	77	21 - 120	0	40
Phenanthrene	460		716	891		ug/Kg	☼	60	28 - 120	9	40
Pyrene	660		716	1150		ug/Kg	☼	69	28 - 120	2	40
3 & 4 Methylphenol	2100	U	716	607	J	ug/Kg	☼	85	33 - 120	2	29

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*73*		*32 - 120*
2-Fluorophenol (Surr)	*62*		*29 - 120*
2,4,6-Tribromophenol (Surr)	*32*		*10 - 120*
Nitrobenzene-d5 (Surr)	*86*		*30 - 120*
Phenol-d5 (Surr)	*75*		*29 - 120*
Terphenyl-d14 (Surr)	*91*		*41 - 120*

Lab Sample ID: MB 240-371076/18-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 371953 — **Prep Batch: 371076**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	1.0	U	1.0	0.49	ug/L		03/11/19 11:50	03/18/19 10:25	1
bis (2-chloroisopropyl) ether	1.0	U	1.0	0.55	ug/L		03/11/19 11:50	03/18/19 10:25	1
2,4,5-Trichlorophenol	5.0	U	5.0	2.0	ug/L		03/11/19 11:50	03/18/19 10:25	1
2,4,6-Trichlorophenol	5.0	U	5.0	1.8	ug/L		03/11/19 11:50	03/18/19 10:25	1
2,4-Dichlorophenol	2.0	U	2.0	0.26	ug/L		03/11/19 11:50	03/18/19 10:25	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-371076/18-A
Matrix: Water
Analysis Batch: 371953

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 371076

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	2.0	U	2.0	0.52	ug/L		03/11/19 11:50	03/18/19 10:25	1
2,4-Dinitrophenol	10	U	10	6.2	ug/L		03/11/19 11:50	03/18/19 10:25	1
2,4-Dinitrotoluene	5.0	U	5.0	2.1	ug/L		03/11/19 11:50	03/18/19 10:25	1
2,6-Dinitrotoluene	5.0	U	5.0	2.1	ug/L		03/11/19 11:50	03/18/19 10:25	1
2-Chloronaphthalene	1.0	U	1.0	0.48	ug/L		03/11/19 11:50	03/18/19 10:25	1
2-Chlorophenol	1.0	U	1.0	0.27	ug/L		03/11/19 11:50	03/18/19 10:25	1
2-Methylnaphthalene	0.20	U	0.20	0.11	ug/L		03/11/19 11:50	03/18/19 10:25	1
2-Methylphenol	1.0	U	1.0	0.21	ug/L		03/11/19 11:50	03/18/19 10:25	1
2-Nitroaniline	2.0	U	2.0	0.51	ug/L		03/11/19 11:50	03/18/19 10:25	1
2-Nitrophenol	2.0	U	2.0	0.56	ug/L		03/11/19 11:50	03/18/19 10:25	1
3,3'-Dichlorobenzidine	5.0	U	5.0	1.2	ug/L		03/11/19 11:50	03/18/19 10:25	1
3-Nitroaniline	2.0	U	2.0	0.57	ug/L		03/11/19 11:50	03/18/19 10:25	1
4,6-Dinitro-2-methylphenol	5.0	U	5.0	2.8	ug/L		03/11/19 11:50	03/18/19 10:25	1
4-Bromophenyl phenyl ether	2.0	U	2.0	0.50	ug/L		03/11/19 11:50	03/18/19 10:25	1
4-Chloro-3-methylphenol	2.0	U	2.0	0.30	ug/L		03/11/19 11:50	03/18/19 10:25	1
4-Chloroaniline	2.0	U	2.0	0.32	ug/L		03/11/19 11:50	03/18/19 10:25	1
4-Chlorophenyl phenyl ether	2.0	U	2.0	0.55	ug/L		03/11/19 11:50	03/18/19 10:25	1
4-Nitroaniline	2.0	U	2.0	0.92	ug/L		03/11/19 11:50	03/18/19 10:25	1
4-Nitrophenol	10	U	10	2.2	ug/L		03/11/19 11:50	03/18/19 10:25	1
Acenaphthene	0.20	U	0.20	0.17	ug/L		03/11/19 11:50	03/18/19 10:25	1
Acenaphthylene	0.20	U	0.20	0.13	ug/L		03/11/19 11:50	03/18/19 10:25	1
Acetophenone	1.0	U	1.0	0.37	ug/L		03/11/19 11:50	03/18/19 10:25	1
Anthracene	0.20	U	0.20	0.14	ug/L		03/11/19 11:50	03/18/19 10:25	1
Atrazine	2.0	U	2.0	0.95	ug/L		03/11/19 11:50	03/18/19 10:25	1
Benzaldehyde	2.0	U	2.0	0.76	ug/L		03/11/19 11:50	03/18/19 10:25	1
Benzo[a]anthracene	0.20	U	0.20	0.17	ug/L		03/11/19 11:50	03/18/19 10:25	1
Benzo[a]pyrene	0.20	U	0.20	0.17	ug/L		03/11/19 11:50	03/18/19 10:25	1
Benzo[b]fluoranthene	0.20	U	0.20	0.15	ug/L		03/11/19 11:50	03/18/19 10:25	1
Benzo[g,h,i]perylene	0.20	U	0.20	0.18	ug/L		03/11/19 11:50	03/18/19 10:25	1
Benzo[k]fluoranthene	0.20	U	0.20	0.14	ug/L		03/11/19 11:50	03/18/19 10:25	1
Bis(2-chloroethoxy)methane	1.0	U	1.0	0.46	ug/L		03/11/19 11:50	03/18/19 10:25	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.40	ug/L		03/11/19 11:50	03/18/19 10:25	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0	2.2	ug/L		03/11/19 11:50	03/18/19 10:25	1
Butyl benzyl phthalate	2.0	U	2.0	0.67	ug/L		03/11/19 11:50	03/18/19 10:25	1
Caprolactam	5.0	U	5.0	0.93	ug/L		03/11/19 11:50	03/18/19 10:25	1
Carbazole	1.0	U	1.0	0.49	ug/L		03/11/19 11:50	03/18/19 10:25	1
Chrysene	0.20	U	0.20	0.19	ug/L		03/11/19 11:50	03/18/19 10:25	1
Dibenz(a,h)anthracene	0.20	U	0.20	0.15	ug/L		03/11/19 11:50	03/18/19 10:25	1
Dibenzofuran	1.0	U	1.0	0.56	ug/L		03/11/19 11:50	03/18/19 10:25	1
Diethyl phthalate	5.0	U	5.0	3.8	ug/L		03/11/19 11:50	03/18/19 10:25	1
Dimethyl phthalate	2.0	U	2.0	0.52	ug/L		03/11/19 11:50	03/18/19 10:25	1
Di-n-butyl phthalate	5.0	U	5.0	1.8	ug/L		03/11/19 11:50	03/18/19 10:25	1
Di-n-octyl phthalate	2.0	U	2.0	0.82	ug/L		03/11/19 11:50	03/18/19 10:25	1
Fluoranthene	0.20	U	0.20	0.16	ug/L		03/11/19 11:50	03/18/19 10:25	1
Fluorene	0.20	U	0.20	0.17	ug/L		03/11/19 11:50	03/18/19 10:25	1
Hexachlorobenzene	0.20	U	0.20	0.16	ug/L		03/11/19 11:50	03/18/19 10:25	1
Hexachlorobutadiene	1.0	U	1.0	0.54	ug/L		03/11/19 11:50	03/18/19 10:25	1
Hexachlorocyclopentadiene	10	U	10	1.8	ug/L		03/11/19 11:50	03/18/19 10:25	1
Hexachloroethane	1.0	U	1.0	0.40	ug/L		03/11/19 11:50	03/18/19 10:25	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-371076/18-A
Matrix: Water
Analysis Batch: 371953

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 371076

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	0.20	U	0.20	0.14	ug/L		03/11/19 11:50	03/18/19 10:25	1
Isophorone	1.0	U	1.0	0.32	ug/L		03/11/19 11:50	03/18/19 10:25	1
Naphthalene	0.20	U	0.20	0.11	ug/L		03/11/19 11:50	03/18/19 10:25	1
Nitrobenzene	1.0	U	1.0	0.51	ug/L		03/11/19 11:50	03/18/19 10:25	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.25	ug/L		03/11/19 11:50	03/18/19 10:25	1
N-Nitrosodiphenylamine	1.0	U	1.0	0.44	ug/L		03/11/19 11:50	03/18/19 10:25	1
Pentachlorophenol	10	U	10	3.1	ug/L		03/11/19 11:50	03/18/19 10:25	1
Phenol	1.0	U	1.0	0.13	ug/L		03/11/19 11:50	03/18/19 10:25	1
Phenanthrene	0.20	U	0.20	0.17	ug/L		03/11/19 11:50	03/18/19 10:25	1
Pyrene	0.20	U	0.20	0.18	ug/L		03/11/19 11:50	03/18/19 10:25	1
3 & 4 Methylphenol	2.0	U	2.0	0.19	ug/L		03/11/19 11:50	03/18/19 10:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*76*		*38 - 120*	*03/11/19 11:50*	*03/18/19 10:25*	*1*
2-Fluorophenol (Surr)	*64*		*10 - 120*	*03/11/19 11:50*	*03/18/19 10:25*	*1*
2,4,6-Tribromophenol (Surr)	*52*		*28 - 120*	*03/11/19 11:50*	*03/18/19 10:25*	*1*
Nitrobenzene-d5 (Surr)	*78*		*32 - 120*	*03/11/19 11:50*	*03/18/19 10:25*	*1*
Phenol-d5 (Surr)	*47*		*10 - 120*	*03/11/19 11:50*	*03/18/19 10:25*	*1*
Terphenyl-d14 (Surr)	*86*		*23 - 127*	*03/11/19 11:50*	*03/18/19 10:25*	*1*

Lab Sample ID: LCS 240-371076/19-A
Matrix: Water
Analysis Batch: 371953

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371076

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	20.0	19.2		ug/L		96	53 - 120
bis (2-chloroisopropyl) ether	20.0	19.6		ug/L		98	45 - 120
2,4,5-Trichlorophenol	20.0	19.7		ug/L		98	54 - 120
2,4,6-Trichlorophenol	20.0	19.2		ug/L		96	54 - 120
2,4-Dichlorophenol	20.0	18.7		ug/L		93	55 - 120
2,4-Dimethylphenol	20.0	18.6		ug/L		93	52 - 120
2,4-Dinitrophenol	40.0	22.3		ug/L		56	12 - 120
2,4-Dinitrotoluene	20.0	21.2		ug/L		106	60 - 120
2,6-Dinitrotoluene	20.0	20.0		ug/L		100	60 - 120
2-Chloronaphthalene	20.0	18.9		ug/L		94	53 - 120
2-Chlorophenol	20.0	18.9		ug/L		95	53 - 120
2-Methylnaphthalene	20.0	17.4		ug/L		87	54 - 120
2-Methylphenol	20.0	18.0		ug/L		90	46 - 120
2-Nitroaniline	20.0	19.9		ug/L		99	51 - 120
2-Nitrophenol	20.0	19.8		ug/L		99	54 - 120
3,3'-Dichlorobenzidine	40.0	40.9		ug/L		102	57 - 120
3-Nitroaniline	20.0	19.2		ug/L		96	53 - 120
4,6-Dinitro-2-methylphenol	40.0	33.6		ug/L		84	36 - 120
4-Bromophenyl phenyl ether	20.0	19.5		ug/L		97	54 - 120
4-Chloro-3-methylphenol	20.0	18.4		ug/L		92	54 - 120
4-Chloroaniline	20.0	7.63		ug/L		38	10 - 120
4-Chlorophenyl phenyl ether	20.0	18.1		ug/L		91	56 - 120
4-Nitroaniline	20.0	19.5		ug/L		98	55 - 120

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-371076/19-A
Matrix: Water
Analysis Batch: 371953

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371076

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Nitrophenol	40.0	21.6		ug/L		54	10 - 120
Acenaphthene	20.0	19.4		ug/L		97	54 - 120
Acenaphthylene	20.0	19.4		ug/L		97	53 - 120
Acetophenone	20.0	19.1		ug/L		95	56 - 120
Anthracene	20.0	19.2		ug/L		96	56 - 120
Atrazine	40.0	42.6		ug/L		107	61 - 127
Benzaldehyde	40.0	40.6		ug/L		102	47 - 134
Benzo[a]anthracene	20.0	19.7		ug/L		99	54 - 120
Benzo[a]pyrene	20.0	19.0		ug/L		95	54 - 120
Benzo[b]fluoranthene	20.0	19.8		ug/L		99	53 - 120
Benzo[g,h,i]perylene	20.0	22.0		ug/L		110	55 - 120
Benzo[k]fluoranthene	20.0	21.6		ug/L		108	55 - 120
Bis(2-chloroethoxy)methane	20.0	19.3		ug/L		97	56 - 120
Bis(2-chloroethyl)ether	20.0	17.9		ug/L		89	51 - 120
Bis(2-ethylhexyl) phthalate	20.0	22.4		ug/L		112	50 - 120
Butyl benzyl phthalate	20.0	20.8		ug/L		104	51 - 120
Caprolactam	40.0	8.56		ug/L		21	10 - 120
Carbazole	20.0	19.5		ug/L		98	62 - 120
Chrysene	20.0	19.2		ug/L		96	56 - 120
Dibenz(a,h)anthracene	20.0	19.9		ug/L		99	52 - 120
Dibenzofuran	20.0	18.6		ug/L		93	55 - 120
Diethyl phthalate	20.0	20.5		ug/L		102	42 - 132
Dimethyl phthalate	20.0	20.1		ug/L		101	56 - 120
Di-n-butyl phthalate	20.0	20.4		ug/L		102	61 - 120
Di-n-octyl phthalate	20.0	16.6		ug/L		83	58 - 120
Fluoranthene	20.0	18.0		ug/L		90	58 - 120
Fluorene	20.0	19.9		ug/L		100	56 - 120
Hexachlorobenzene	20.0	19.4		ug/L		97	51 - 120
Hexachlorobutadiene	20.0	16.8		ug/L		84	44 - 120
Hexachlorocyclopentadiene	20.0	12.0		ug/L		60	19 - 120
Hexachloroethane	20.0	16.5		ug/L		83	44 - 120
Indeno[1,2,3-cd]pyrene	20.0	20.1		ug/L		101	54 - 120
Isophorone	20.0	19.2		ug/L		96	55 - 120
Naphthalene	20.0	17.2		ug/L		86	53 - 120
Nitrobenzene	20.0	18.7		ug/L		94	55 - 120
N-Nitrosodi-n-propylamine	20.0	19.1		ug/L		95	53 - 120
N-Nitrosodiphenylamine	20.0	19.4		ug/L		97	55 - 120
Pentachlorophenol	40.0	25.5		ug/L		64	30 - 120
Phenol	20.0	12.4		ug/L		62	10 - 120
Phenanthrene	20.0	19.0		ug/L		95	55 - 120
Pyrene	20.0	20.2		ug/L		101	57 - 120
3 & 4 Methylphenol	20.0	17.9		ug/L		90	40 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*93*		*38 - 120*
2-Fluorophenol (Surr)	*81*		*10 - 120*
2,4,6-Tribromophenol (Surr)	*93*		*28 - 120*
Nitrobenzene-d5 (Surr)	*96*		*32 - 120*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-371076/19-A
Matrix: Water
Analysis Batch: 371953

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371076

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Phenol-d5 (Surr)	*57*		*10 - 120*
Terphenyl-d14 (Surr)	*103*		*23 - 127*

Lab Sample ID: MB 240-371183/21-A
Matrix: Solid
Analysis Batch: 371550

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 371183

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	50	U	50	17	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
bis (2-chloroisopropyl) ether	100	U	100	10	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
2,4,5-Trichlorophenol	150	U	150	69	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
2,4,6-Trichlorophenol	150	U	150	64	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
2,4-Dichlorophenol	150	U	150	44	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
2,4-Dimethylphenol	150	U	150	40	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
2,4-Dinitrophenol	330	U	330	140	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
2,4-Dinitrotoluene	200	U	200	62	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
2,6-Dinitrotoluene	200	U	200	56	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
2-Chloronaphthalene	50	U	50	14	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
2-Chlorophenol	50	U	50	10	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
2-Methylnaphthalene	15	U	15	2.0	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
2-Methylphenol	200	U	200	31	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
2-Nitroaniline	200	U	200	40	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
2-Nitrophenol	50	U	50	13	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
3,3'-Dichlorobenzidine	100	U	100	43	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
3-Nitroaniline	200	U	200	49	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
4,6-Dinitro-2-methylphenol	330	U	330	80	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
4-Bromophenyl phenyl ether	50	U	50	14	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
4-Chloro-3-methylphenol	150	U	150	45	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
4-Chloroaniline	150	U	150	30	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
4-Chlorophenyl phenyl ether	50	U	50	14	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
4-Nitroaniline	200	U	200	60	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
4-Nitrophenol	330	U	330	94	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Acenaphthene	15	U	15	2.9	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Acenaphthylene	15	U	15	4.0	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Acetophenone	100	U	100	11	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Anthracene	15	U	15	2.4	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Atrazine	200	U	200	36	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Benzaldehyde	100	U	100	23	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Benzo[a]anthracene	15	U	15	3.4	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Benzo[a]pyrene	15	U	15	9.3	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Benzo[b]fluoranthene	15	U	15	6.5	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Benzo[g,h,i]perylene	15	U	15	7.1	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Benzo[k]fluoranthene	15	U	15	6.9	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Bis(2-chloroethoxy)methane	100	U	100	12	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Bis(2-chloroethyl)ether	100	U	100	12	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Bis(2-ethylhexyl) phthalate	70	U	70	51	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Butyl benzyl phthalate	70	U	70	22	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Caprolactam	330	U	330	75	ug/Kg		03/12/19 07:38	03/14/19 09:53	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-371183/21-A
Matrix: Solid
Analysis Batch: 371550

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 371183

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbazole	50	U	50	19	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Chrysene	15	U	15	1.5	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Dibenz(a,h)anthracene	15	U	15	6.9	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Dibenzofuran	50	U	50	13	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Diethyl phthalate	70	U	70	31	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Dimethyl phthalate	70	U	70	14	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Di-n-butyl phthalate	70	U	70	22	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Di-n-octyl phthalate	70	U	70	28	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Fluoranthene	15	U	15	4.5	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Fluorene	15	U	15	2.7	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Hexachlorobenzene	15	U	15	2.9	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Hexachlorobutadiene	50	U	50	12	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Hexachlorocyclopentadiene	330	U	330	62	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Hexachloroethane	50	U	50	9.0	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Indeno[1,2,3-cd]pyrene	15	U	15	7.4	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Isophorone	50	U	50	12	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Naphthalene	15	U	15	2.4	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Nitrobenzene	100	U	100	13	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
N-Nitrosodi-n-propylamine	50	U	50	11	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
N-Nitrosodiphenylamine	50	U	50	12	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Pentachlorophenol	150	U	150	58	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Phenol	50	U	50	8.0	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Phenanthrene	15	U	15	2.2	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
Pyrene	15	U	15	2.1	ug/Kg		03/12/19 07:38	03/14/19 09:53	1
3 & 4 Methylphenol	400	U	400	29	ug/Kg		03/12/19 07:38	03/14/19 09:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*83*		*32 - 120*	*03/12/19 07:38*	*03/14/19 09:53*	*1*
2-Fluorophenol (Surr)	*95*		*29 - 120*	*03/12/19 07:38*	*03/14/19 09:53*	*1*
2,4,6-Tribromophenol (Surr)	*65*		*10 - 120*	*03/12/19 07:38*	*03/14/19 09:53*	*1*
Nitrobenzene-d5 (Surr)	*84*		*30 - 120*	*03/12/19 07:38*	*03/14/19 09:53*	*1*
Phenol-d5 (Surr)	*98*		*29 - 120*	*03/12/19 07:38*	*03/14/19 09:53*	*1*
Terphenyl-d14 (Surr)	*104*		*41 - 120*	*03/12/19 07:38*	*03/14/19 09:53*	*1*

Lab Sample ID: LCS 240-371183/22-A
Matrix: Solid
Analysis Batch: 371550

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371183

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	667	538		ug/Kg		81	48 - 120
bis (2-chloroisopropyl) ether	667	590		ug/Kg		89	37 - 120
2,4,5-Trichlorophenol	667	554		ug/Kg		83	34 - 120
2,4,6-Trichlorophenol	667	545		ug/Kg		82	19 - 120
2,4-Dichlorophenol	667	570		ug/Kg		85	48 - 120
2,4-Dimethylphenol	667	460		ug/Kg		69	37 - 120
2,4-Dinitrophenol	1330	465		ug/Kg		35	10 - 120
2,4-Dinitrotoluene	667	625		ug/Kg		94	53 - 120
2,6-Dinitrotoluene	667	600		ug/Kg		90	54 - 120

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-371183/22-A
Matrix: Solid
Analysis Batch: 371550

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371183

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chloronaphthalene	667	534		ug/Kg		80	49 - 120
2-Chlorophenol	667	580		ug/Kg		87	50 - 120
2-Methylnaphthalene	667	547		ug/Kg		82	49 - 120
2-Methylphenol	667	594		ug/Kg		89	49 - 120
2-Nitroaniline	667	597		ug/Kg		90	46 - 120
2-Nitrophenol	667	609		ug/Kg		91	46 - 120
3,3'-Dichlorobenzidine	1330	819		ug/Kg		61	40 - 120
3-Nitroaniline	667	481		ug/Kg		72	48 - 120
4,6-Dinitro-2-methylphenol	1330	860		ug/Kg		64	18 - 120
4-Bromophenyl phenyl ether	667	558		ug/Kg		84	51 - 120
4-Chloro-3-methylphenol	667	571		ug/Kg		86	47 - 120
4-Chloroaniline	667	353		ug/Kg		53	37 - 120
4-Chlorophenyl phenyl ether	667	543		ug/Kg		81	49 - 120
4-Nitroaniline	667	597		ug/Kg		90	49 - 120
4-Nitrophenol	1330	945		ug/Kg		71	42 - 120
Acenaphthene	667	544		ug/Kg		82	48 - 120
Acenaphthylene	667	535		ug/Kg		80	46 - 120
Acetophenone	667	560		ug/Kg		84	46 - 120
Anthracene	667	570		ug/Kg		86	51 - 120
Atrazine	1330	1220		ug/Kg		91	57 - 120
Benzaldehyde	1330	1180		ug/Kg		89	48 - 120
Benzo[a]anthracene	667	571		ug/Kg		86	53 - 120
Benzo[a]pyrene	667	569		ug/Kg		85	50 - 120
Benzo[b]fluoranthene	667	587		ug/Kg		88	48 - 120
Benzo[g,h,i]perylene	667	612		ug/Kg		92	50 - 120
Benzo[k]fluoranthene	667	633		ug/Kg		95	51 - 120
Bis(2-chloroethoxy)methane	667	563		ug/Kg		84	50 - 120
Bis(2-chloroethyl)ether	667	575		ug/Kg		86	48 - 120
Bis(2-ethylhexyl) phthalate	667	623		ug/Kg		93	52 - 120
Butyl benzyl phthalate	667	585		ug/Kg		88	53 - 120
Caprolactam	1330	1250		ug/Kg		94	59 - 120
Carbazole	667	575		ug/Kg		86	56 - 120
Chrysene	667	564		ug/Kg		85	54 - 120
Dibenz(a,h)anthracene	667	569		ug/Kg		85	48 - 120
Dibenzofuran	667	535		ug/Kg		80	49 - 120
Diethyl phthalate	667	571		ug/Kg		86	52 - 120
Dimethyl phthalate	667	572		ug/Kg		86	53 - 120
Di-n-butyl phthalate	667	599		ug/Kg		90	56 - 120
Di-n-octyl phthalate	667	566		ug/Kg		85	42 - 120
Fluoranthene	667	596		ug/Kg		89	53 - 120
Fluorene	667	561		ug/Kg		84	50 - 120
Hexachlorobenzene	667	570		ug/Kg		86	46 - 120
Hexachlorobutadiene	667	503		ug/Kg		75	44 - 120
Hexachlorocyclopentadiene	667	353		ug/Kg		53	14 - 120
Hexachloroethane	667	542		ug/Kg		81	45 - 120
Indeno[1,2,3-cd]pyrene	667	571		ug/Kg		86	49 - 120
Isophorone	667	553		ug/Kg		83	47 - 120
Naphthalene	667	521		ug/Kg		78	48 - 120
Nitrobenzene	667	545		ug/Kg		82	48 - 120

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-371183/22-A
Matrix: Solid
Analysis Batch: 371550

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371183

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
N-Nitrosodi-n-propylamine	667	557		ug/Kg		84	49 - 120
N-Nitrosodiphenylamine	667	551		ug/Kg		83	53 - 120
Pentachlorophenol	1330	838		ug/Kg		63	14 - 120
Phenol	667	581		ug/Kg		87	49 - 120
Phenanthrene	667	542		ug/Kg		81	52 - 120
Pyrene	667	559		ug/Kg		84	55 - 120
3 & 4 Methylphenol	667	595		ug/Kg		89	50 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*84*		*32 - 120*
2-Fluorophenol (Surr)	*98*		*29 - 120*
2,4,6-Tribromophenol (Surr)	*86*		*10 - 120*
Nitrobenzene-d5 (Surr)	*87*		*30 - 120*
Phenol-d5 (Surr)	*97*		*29 - 120*
Terphenyl-d14 (Surr)	*91*		*41 - 120*

Lab Sample ID: 240-109180-9 MS
Matrix: Solid
Analysis Batch: 371953

Client Sample ID: SB04-6-8
Prep Type: Total/NA
Prep Batch: 371183

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	54	U	715	641		ug/Kg	☼	90	33 - 120
bis (2-chloroisopropyl) ether	110	U	715	667		ug/Kg	☼	93	26 - 120
2,4,5-Trichlorophenol	160	U	715	699		ug/Kg	☼	98	20 - 120
2,4,6-Trichlorophenol	160	U	715	611		ug/Kg	☼	86	19 - 120
2,4-Dichlorophenol	160	U	715	655		ug/Kg	☼	92	32 - 120
2,4-Dimethylphenol	160	U	715	626		ug/Kg	☼	88	28 - 120
2,4-Dinitrophenol	360	U	1430	474		ug/Kg	☼	33	10 - 120
2,4-Dinitrotoluene	220	U	715	735		ug/Kg	☼	103	38 - 120
2,6-Dinitrotoluene	220	U	715	740		ug/Kg	☼	104	43 - 120
2-Chloronaphthalene	54	U	715	621		ug/Kg	☼	87	35 - 120
2-Chlorophenol	54	U	715	633		ug/Kg	☼	89	30 - 120
2-Methylnaphthalene	22		715	668		ug/Kg	☼	90	31 - 120
2-Methylphenol	220	U	715	696		ug/Kg	☼	97	31 - 120
2-Nitroaniline	220	U	715	738		ug/Kg	☼	103	29 - 120
2-Nitrophenol	54	U	715	697		ug/Kg	☼	98	26 - 120
3,3'-Dichlorobenzidine	110	U	1430	1120		ug/Kg	☼	78	10 - 120
3-Nitroaniline	220	U	715	585		ug/Kg	☼	82	21 - 120
4,6-Dinitro-2-methylphenol	360	U	1430	829		ug/Kg	☼	58	10 - 120
4-Bromophenyl phenyl ether	54	U	715	712		ug/Kg	☼	100	44 - 120
4-Chloro-3-methylphenol	160	U	715	681		ug/Kg	☼	95	31 - 120
4-Chloroaniline	160	U	715	463		ug/Kg	☼	65	15 - 120
4-Chlorophenyl phenyl ether	54	U	715	681		ug/Kg	☼	95	41 - 120
4-Nitroaniline	220	U	715	635		ug/Kg	☼	89	23 - 120
4-Nitrophenol	360	U	1430	1030		ug/Kg	☼	72	32 - 120
Acenaphthene	31		715	678		ug/Kg	☼	90	36 - 120
Acenaphthylene	16	U	715	650		ug/Kg	☼	91	35 - 120
Acetophenone	110	U	715	608		ug/Kg	☼	85	31 - 120

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-109180-9 MS
Matrix: Solid
Analysis Batch: 371953

Client Sample ID: SB04-6-8
Prep Type: Total/NA
Prep Batch: 371183

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	74		715	770		ug/Kg	☼	97	42 - 120
Atrazine	220	U	1430	1510		ug/Kg	☼	105	41 - 120
Benzaldehyde	110	U	1430	1330		ug/Kg	☼	93	28 - 120
Benzo[a]anthracene	200		715	857		ug/Kg	☼	92	35 - 120
Benzo[a]pyrene	190		715	811		ug/Kg	☼	87	33 - 120
Benzo[b]fluoranthene	230		715	916		ug/Kg	☼	96	26 - 120
Benzo[g,h,i]perylene	150		715	955		ug/Kg	☼	112	16 - 120
Benzo[k]fluoranthene	120		715	800		ug/Kg	☼	95	33 - 120
Bis(2-chloroethoxy)methane	110	U	715	650		ug/Kg	☼	91	36 - 120
Bis(2-chloroethyl)ether	110	U	715	649		ug/Kg	☼	91	33 - 120
Bis(2-ethylhexyl) phthalate	100	F1	715	862		ug/Kg	☼	107	40 - 120
Butyl benzyl phthalate	75	U	715	747		ug/Kg	☼	105	46 - 120
Caprolactam	360	U	1430	1510		ug/Kg	☼	106	33 - 128
Carbazole	39	J	715	720		ug/Kg	☼	95	35 - 120
Chrysene	220		715	838		ug/Kg	☼	87	33 - 120
Dibenz(a,h)anthracene	36		715	702		ug/Kg	☼	93	30 - 120
Dibenzofuran	20	J	715	661		ug/Kg	☼	90	37 - 120
Diethyl phthalate	75	U	715	697		ug/Kg	☼	98	44 - 120
Dimethyl phthalate	75	U	715	694		ug/Kg	☼	97	42 - 120
Di-n-butyl phthalate	75	U	715	770		ug/Kg	☼	108	45 - 120
Di-n-octyl phthalate	75	U	715	673		ug/Kg	☼	94	35 - 120
Fluoranthene	470		715	1090		ug/Kg	☼	87	26 - 121
Fluorene	28		715	676		ug/Kg	☼	91	36 - 120
Hexachlorobenzene	16	U	715	702		ug/Kg	☼	98	36 - 120
Hexachlorobutadiene	54	U	715	631		ug/Kg	☼	88	31 - 120
Hexachlorocyclopentadiene	360	U F1	715	350	U F1	ug/Kg	☼	0	10 - 120
Hexachloroethane	54	U	715	556		ug/Kg	☼	78	15 - 120
Indeno[1,2,3-cd]pyrene	120		715	821		ug/Kg	☼	99	24 - 120
Isophorone	54	U	715	668		ug/Kg	☼	93	34 - 120
Naphthalene	22		715	619		ug/Kg	☼	84	29 - 120
Nitrobenzene	110	U	715	667		ug/Kg	☼	93	33 - 120
N-Nitrosodi-n-propylamine	54	U	715	651		ug/Kg	☼	91	32 - 120
N-Nitrosodiphenylamine	54	U	715	695		ug/Kg	☼	97	29 - 120
Pentachlorophenol	160	U	1430	483		ug/Kg	☼	34	10 - 120
Phenol	54	U	715	688		ug/Kg	☼	96	21 - 120
Phenanthrene	300		715	894		ug/Kg	☼	83	28 - 120
Pyrene	380		715	945		ug/Kg	☼	80	28 - 120
3 & 4 Methylphenol	430	U	715	654		ug/Kg	☼	92	33 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*91*		*32 - 120*
2-Fluorophenol (Surr)	*99*		*29 - 120*
2,4,6-Tribromophenol (Surr)	*79*		*10 - 120*
Nitrobenzene-d5 (Surr)	*96*		*30 - 120*
Phenol-d5 (Surr)	*98*		*29 - 120*
Terphenyl-d14 (Surr)	*104*		*41 - 120*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-109180-9 MSD
Matrix: Solid
Analysis Batch: 371953

Client Sample ID: SB04-6-8
Prep Type: Total/NA
Prep Batch: 371183

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1'-Biphenyl	54	U	715	644		ug/Kg	☼	90	33 - 120	0	33
bis (2-chloroisopropyl) ether	110	U	715	631		ug/Kg	☼	88	26 - 120	6	31
2,4,5-Trichlorophenol	160	U	715	621		ug/Kg	☼	87	20 - 120	12	38
2,4,6-Trichlorophenol	160	U	715	552		ug/Kg	☼	77	19 - 120	10	36
2,4-Dichlorophenol	160	U	715	645		ug/Kg	☼	90	32 - 120	2	32
2,4-Dimethylphenol	160	U	715	655		ug/Kg	☼	92	28 - 120	5	35
2,4-Dinitrophenol	360	U	1430	419		ug/Kg	☼	29	10 - 120	12	40
2,4-Dinitrotoluene	220	U	715	750		ug/Kg	☼	105	38 - 120	2	27
2,6-Dinitrotoluene	220	U	715	741		ug/Kg	☼	104	43 - 120	0	31
2-Chloronaphthalene	54	U	715	634		ug/Kg	☼	89	35 - 120	2	30
2-Chlorophenol	54	U	715	612		ug/Kg	☼	86	30 - 120	3	37
2-Methylnaphthalene	22		715	668		ug/Kg	☼	90	31 - 120	0	33
2-Methylphenol	220	U	715	655		ug/Kg	☼	92	31 - 120	6	36
2-Nitroaniline	220	U	715	775		ug/Kg	☼	108	29 - 120	5	31
2-Nitrophenol	54	U	715	690		ug/Kg	☼	97	26 - 120	1	38
3,3'-Dichlorobenzidine	110	U	1430	1200		ug/Kg	☼	84	10 - 120	7	40
3-Nitroaniline	220	U	715	611		ug/Kg	☼	85	21 - 120	4	40
4,6-Dinitro-2-methylphenol	360	U	1430	711		ug/Kg	☼	50	10 - 120	15	40
4-Bromophenyl phenyl ether	54	U	715	713		ug/Kg	☼	100	44 - 120	0	40
4-Chloro-3-methylphenol	160	U	715	697		ug/Kg	☼	97	31 - 120	2	25
4-Chloroaniline	160	U	715	490		ug/Kg	☼	68	15 - 120	6	36
4-Chlorophenyl phenyl ether	54	U	715	686		ug/Kg	☼	96	41 - 120	1	40
4-Nitroaniline	220	U	715	633		ug/Kg	☼	89	23 - 120	0	40
4-Nitrophenol	360	U	1430	1110		ug/Kg	☼	78	32 - 120	7	31
Acenaphthene	31		715	698		ug/Kg	☼	93	36 - 120	3	28
Acenaphthylene	16	U	715	667		ug/Kg	☼	93	35 - 120	3	26
Acetophenone	110	U	715	603		ug/Kg	☼	84	31 - 120	1	40
Anthracene	74		715	772		ug/Kg	☼	98	42 - 120	0	32
Atrazine	220	U	1430	1490		ug/Kg	☼	104	41 - 120	1	26
Benzaldehyde	110	U	1430	1260		ug/Kg	☼	88	28 - 120	6	40
Benzo[a]anthracene	200		715	963		ug/Kg	☼	107	35 - 120	12	40
Benzo[a]pyrene	190		715	864		ug/Kg	☼	95	33 - 120	6	40
Benzo[b]fluoranthene	230		715	978		ug/Kg	☼	104	26 - 120	7	40
Benzo[g,h,i]perylene	150		715	981		ug/Kg	☼	116	16 - 120	3	40
Benzo[k]fluoranthene	120		715	826		ug/Kg	☼	99	33 - 120	3	40
Bis(2-chloroethoxy)methane	110	U	715	625		ug/Kg	☼	87	36 - 120	4	33
Bis(2-chloroethyl)ether	110	U	715	622		ug/Kg	☼	87	33 - 120	4	36
Bis(2-ethylhexyl) phthalate	100	F1	715	1010	F1	ug/Kg	☼	127	40 - 120	16	28
Butyl benzyl phthalate	75	U	715	795		ug/Kg	☼	111	46 - 120	6	39
Caprolactam	360	U	1430	1540		ug/Kg	☼	108	33 - 128	2	40
Carbazole	39	J	715	725		ug/Kg	☼	96	35 - 120	1	34
Chrysene	220		715	975		ug/Kg	☼	106	33 - 120	15	40
Dibenz(a,h)anthracene	36		715	713		ug/Kg	☼	95	30 - 120	2	40
Dibenzofuran	20	J	715	679		ug/Kg	☼	92	37 - 120	3	28
Diethyl phthalate	75	U	715	679		ug/Kg	☼	95	44 - 120	3	26
Dimethyl phthalate	75	U	715	700		ug/Kg	☼	98	42 - 120	1	35
Di-n-butyl phthalate	75	U	715	747		ug/Kg	☼	104	45 - 120	3	28
Di-n-octyl phthalate	75	U	715	646		ug/Kg	☼	90	35 - 120	4	33

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-109180-9 MSD — **Client Sample ID: SB04-6-8**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371953 — **Prep Batch: 371183**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoranthene	470		715	1210		ug/Kg	☼	103	26 - 121	10	40
Fluorene	28		715	709		ug/Kg	☼	95	36 - 120	5	28
Hexachlorobenzene	16	U	715	712		ug/Kg	☼	100	36 - 120	1	25
Hexachlorobutadiene	54	U	715	569		ug/Kg	☼	80	31 - 120	10	35
Hexachlorocyclopentadiene	360	U F1	715	350	U F1	ug/Kg	☼	0	10 - 120	NC	40
Hexachloroethane	54	U	715	544		ug/Kg	☼	76	15 - 120	2	40
Indeno[1,2,3-cd]pyrene	120		715	863		ug/Kg	☼	105	24 - 120	5	40
Isophorone	54	U	715	638		ug/Kg	☼	89	34 - 120	5	32
Naphthalene	22		715	618		ug/Kg	☼	83	29 - 120	0	34
Nitrobenzene	110	U	715	624		ug/Kg	☼	87	33 - 120	7	40
N-Nitrosodi-n-propylamine	54	U	715	626		ug/Kg	☼	88	32 - 120	4	32
N-Nitrosodiphenylamine	54	U	715	711		ug/Kg	☼	99	29 - 120	2	30
Pentachlorophenol	160	U	1430	533		ug/Kg	☼	37	10 - 120	10	40
Phenol	54	U	715	690		ug/Kg	☼	96	21 - 120	0	40
Phenanthrene	300		715	952		ug/Kg	☼	91	28 - 120	6	40
Pyrene	380		715	1160		ug/Kg	☼	110	28 - 120	21	40
3 & 4 Methylphenol	430	U	715	658		ug/Kg	☼	92	33 - 120	1	29

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*90*		*32 - 120*
2-Fluorophenol (Surr)	*100*		*29 - 120*
2,4,6-Tribromophenol (Surr)	*75*		*10 - 120*
Nitrobenzene-d5 (Surr)	*92*		*30 - 120*
Phenol-d5 (Surr)	*96*		*29 - 120*
Terphenyl-d14 (Surr)	*111*		*41 - 120*

Lab Sample ID: MB 240-371871/23-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 372166 — **Prep Batch: 371871**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	50	U	50	17	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
bis (2-chloroisopropyl) ether	100	U	100	10	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
2,4,5-Trichlorophenol	150	U	150	69	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
2,4,6-Trichlorophenol	150	U	150	64	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
2,4-Dichlorophenol	150	U	150	44	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
2,4-Dimethylphenol	150	U	150	40	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
2,4-Dinitrophenol	330	U	330	140	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
2,4-Dinitrotoluene	200	U	200	62	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
2,6-Dinitrotoluene	200	U	200	56	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
2-Chloronaphthalene	50	U	50	14	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
2-Chlorophenol	50	U	50	10	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
2-Methylnaphthalene	15	U	15	2.0	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
2-Methylphenol	200	U	200	31	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
2-Nitroaniline	200	U	200	40	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
2-Nitrophenol	50	U	50	13	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
3,3'-Dichlorobenzidine	100	U	100	43	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
3-Nitroaniline	200	U	200	49	ug/Kg		03/16/19 10:19	03/19/19 10:09	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-371871/23-A
Matrix: Solid
Analysis Batch: 372166

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 371871

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	330	U	330	80	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
4-Bromophenyl phenyl ether	50	U	50	14	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
4-Chloro-3-methylphenol	150	U	150	45	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
4-Chloroaniline	150	U	150	30	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
4-Chlorophenyl phenyl ether	50	U	50	14	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
4-Nitroaniline	200	U	200	60	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
4-Nitrophenol	330	U	330	94	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Acenaphthene	15	U	15	2.9	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Acenaphthylene	15	U	15	4.0	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Acetophenone	100	U	100	11	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Anthracene	15	U	15	2.4	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Atrazine	200	U	200	36	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Benzaldehyde	100	U	100	23	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Benzo[a]anthracene	15	U	15	3.4	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Benzo[a]pyrene	15	U	15	9.3	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Benzo[b]fluoranthene	15	U	15	6.5	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Benzo[g,h,i]perylene	15	U	15	7.1	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Benzo[k]fluoranthene	15	U	15	6.9	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Bis(2-chloroethoxy)methane	100	U	100	12	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Bis(2-chloroethyl)ether	100	U	100	12	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Bis(2-ethylhexyl) phthalate	70	U	70	51	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Butyl benzyl phthalate	70	U	70	22	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Caprolactam	330	U	330	75	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Carbazole	50	U	50	19	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Chrysene	15	U	15	1.5	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Dibenz(a,h)anthracene	15	U	15	6.9	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Dibenzofuran	50	U	50	13	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Diethyl phthalate	70	U	70	31	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Dimethyl phthalate	70	U	70	14	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Di-n-butyl phthalate	70	U	70	22	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Di-n-octyl phthalate	70	U	70	28	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Fluoranthene	15	U	15	4.5	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Fluorene	15	U	15	2.7	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Hexachlorobenzene	15	U	15	2.9	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Hexachlorobutadiene	50	U	50	12	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Hexachlorocyclopentadiene	330	U	330	62	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Hexachloroethane	50	U	50	9.0	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Indeno[1,2,3-cd]pyrene	15	U	15	7.4	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Isophorone	50	U	50	12	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Naphthalene	15	U	15	2.4	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Nitrobenzene	100	U	100	13	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
N-Nitrosodi-n-propylamine	50	U	50	11	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
N-Nitrosodiphenylamine	50	U	50	12	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Pentachlorophenol	150	U	150	58	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Phenol	50	U	50	8.0	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Phenanthrene	15	U	15	2.2	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
Pyrene	15	U	15	2.1	ug/Kg		03/16/19 10:19	03/19/19 10:09	1
3 & 4 Methylphenol	400	U	400	29	ug/Kg		03/16/19 10:19	03/19/19 10:09	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-371871/23-A
Matrix: Solid
Analysis Batch: 372166

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 371871

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	74		32 - 120	03/16/19 10:19	03/19/19 10:09	1
2-Fluorophenol (Surr)	73		29 - 120	03/16/19 10:19	03/19/19 10:09	1
2,4,6-Tribromophenol (Surr)	37		10 - 120	03/16/19 10:19	03/19/19 10:09	1
Nitrobenzene-d5 (Surr)	65		30 - 120	03/16/19 10:19	03/19/19 10:09	1
Phenol-d5 (Surr)	76		29 - 120	03/16/19 10:19	03/19/19 10:09	1
Terphenyl-d14 (Surr)	92		41 - 120	03/16/19 10:19	03/19/19 10:09	1

Lab Sample ID: LCS 240-371871/24-A
Matrix: Solid
Analysis Batch: 372166

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371871

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	667	528		ug/Kg		79	48 - 120
bis (2-chloroisopropyl) ether	667	540		ug/Kg		81	37 - 120
2,4,5-Trichlorophenol	667	533		ug/Kg		80	34 - 120
2,4,6-Trichlorophenol	667	465		ug/Kg		70	19 - 120
2,4-Dichlorophenol	667	551		ug/Kg		83	48 - 120
2,4-Dimethylphenol	667	527		ug/Kg		79	37 - 120
2,4-Dinitrophenol	1330	579		ug/Kg		43	10 - 120
2,4-Dinitrotoluene	667	555		ug/Kg		83	53 - 120
2,6-Dinitrotoluene	667	567		ug/Kg		85	54 - 120
2-Chloronaphthalene	667	528		ug/Kg		79	49 - 120
2-Chlorophenol	667	521		ug/Kg		78	50 - 120
2-Methylnaphthalene	667	526		ug/Kg		79	49 - 120
2-Methylphenol	667	555		ug/Kg		83	49 - 120
2-Nitroaniline	667	499		ug/Kg		75	46 - 120
2-Nitrophenol	667	533		ug/Kg		80	46 - 120
3,3'-Dichlorobenzidine	1330	810		ug/Kg		61	40 - 120
3-Nitroaniline	667	431		ug/Kg		65	48 - 120
4,6-Dinitro-2-methylphenol	1330	876		ug/Kg		66	18 - 120
4-Bromophenyl phenyl ether	667	588		ug/Kg		88	51 - 120
4-Chloro-3-methylphenol	667	506		ug/Kg		76	47 - 120
4-Chloroaniline	667	341		ug/Kg		51	37 - 120
4-Chlorophenyl phenyl ether	667	550		ug/Kg		83	49 - 120
4-Nitroaniline	667	490		ug/Kg		73	49 - 120
4-Nitrophenol	1330	1010		ug/Kg		76	42 - 120
Acenaphthene	667	518		ug/Kg		78	48 - 120
Acenaphthylene	667	528		ug/Kg		79	46 - 120
Acetophenone	667	549		ug/Kg		82	46 - 120
Anthracene	667	580		ug/Kg		87	51 - 120
Atrazine	1330	1110		ug/Kg		83	57 - 120
Benzaldehyde	1330	1040		ug/Kg		78	48 - 120
Benzo[a]anthracene	667	566		ug/Kg		85	53 - 120
Benzo[a]pyrene	667	599		ug/Kg		90	50 - 120
Benzo[b]fluoranthene	667	574		ug/Kg		86	48 - 120
Benzo[g,h,i]perylene	667	544		ug/Kg		82	50 - 120
Benzo[k]fluoranthene	667	610		ug/Kg		91	51 - 120
Bis(2-chloroethoxy)methane	667	531		ug/Kg		80	50 - 120

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-371871/24-A
Matrix: Solid
Analysis Batch: 372166

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371871

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-chloroethyl)ether	667	530		ug/Kg		80	48 - 120
Bis(2-ethylhexyl) phthalate	667	612		ug/Kg		92	52 - 120
Butyl benzyl phthalate	667	571		ug/Kg		86	53 - 120
Caprolactam	1330	1200		ug/Kg		90	59 - 120
Carbazole	667	567		ug/Kg		85	56 - 120
Chrysene	667	574		ug/Kg		86	54 - 120
Dibenz(a,h)anthracene	667	578		ug/Kg		87	48 - 120
Dibenzofuran	667	516		ug/Kg		77	49 - 120
Diethyl phthalate	667	559		ug/Kg		84	52 - 120
Dimethyl phthalate	667	544		ug/Kg		82	53 - 120
Di-n-butyl phthalate	667	556		ug/Kg		83	56 - 120
Di-n-octyl phthalate	667	568		ug/Kg		85	42 - 120
Fluoranthene	667	569		ug/Kg		85	53 - 120
Fluorene	667	541		ug/Kg		81	50 - 120
Hexachlorobenzene	667	524		ug/Kg		79	46 - 120
Hexachlorobutadiene	667	566		ug/Kg		85	44 - 120
Hexachlorocyclopentadiene	667	489		ug/Kg		73	14 - 120
Hexachloroethane	667	527		ug/Kg		79	45 - 120
Indeno[1,2,3-cd]pyrene	667	557		ug/Kg		84	49 - 120
Isophorone	667	531		ug/Kg		80	47 - 120
Naphthalene	667	524		ug/Kg		79	48 - 120
Nitrobenzene	667	529		ug/Kg		79	48 - 120
N-Nitrosodi-n-propylamine	667	539		ug/Kg		81	49 - 120
N-Nitrosodiphenylamine	667	559		ug/Kg		84	53 - 120
Pentachlorophenol	1330	892		ug/Kg		67	14 - 120
Phenol	667	528		ug/Kg		79	49 - 120
Phenanthrene	667	555		ug/Kg		83	52 - 120
Pyrene	667	565		ug/Kg		85	55 - 120
3 & 4 Methylphenol	667	537		ug/Kg		81	50 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*82*		*32 - 120*
2-Fluorophenol (Surr)	*82*		*29 - 120*
2,4,6-Tribromophenol (Surr)	*64*		*10 - 120*
Nitrobenzene-d5 (Surr)	*80*		*30 - 120*
Phenol-d5 (Surr)	*84*		*29 - 120*
Terphenyl-d14 (Surr)	*94*		*41 - 120*

Lab Sample ID: MB 240-371874/6-A
Matrix: Solid
Analysis Batch: 372162

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 371874

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	50	U	50	17	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
bis (2-chloroisopropyl) ether	100	U	100	10	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
2,4,5-Trichlorophenol	150	U	150	69	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
2,4,6-Trichlorophenol	150	U	150	64	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
2,4-Dichlorophenol	150	U	150	44	ug/Kg		03/16/19 10:43	03/19/19 11:14	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-371874/6-A
Matrix: Solid
Analysis Batch: 372162

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 371874

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	150	U	150	40	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
2,4-Dinitrophenol	330	U	330	140	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
2,4-Dinitrotoluene	200	U	200	62	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
2,6-Dinitrotoluene	200	U	200	56	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
2-Chloronaphthalene	50	U	50	14	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
2-Chlorophenol	50	U	50	10	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
2-Methylnaphthalene	15	U	15	2.0	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
2-Methylphenol	200	U	200	31	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
2-Nitroaniline	200	U	200	40	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
2-Nitrophenol	50	U	50	13	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
3,3'-Dichlorobenzidine	100	U	100	43	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
3-Nitroaniline	200	U	200	49	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
4,6-Dinitro-2-methylphenol	330	U	330	80	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
4-Bromophenyl phenyl ether	50	U	50	14	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
4-Chloro-3-methylphenol	150	U	150	45	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
4-Chloroaniline	150	U	150	30	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
4-Chlorophenyl phenyl ether	50	U	50	14	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
4-Nitroaniline	200	U	200	60	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
4-Nitrophenol	330	U	330	94	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Acenaphthene	15	U	15	2.9	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Acenaphthylene	15	U	15	4.0	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Acetophenone	100	U	100	11	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Anthracene	15	U	15	2.4	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Atrazine	200	U	200	36	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Benzaldehyde	100	U	100	23	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Benzo[a]anthracene	15	U	15	3.4	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Benzo[a]pyrene	15	U	15	9.3	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Benzo[b]fluoranthene	15	U	15	6.5	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Benzo[g,h,i]perylene	15	U	15	7.1	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Benzo[k]fluoranthene	15	U	15	6.9	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Bis(2-chloroethoxy)methane	100	U	100	12	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Bis(2-chloroethyl)ether	100	U	100	12	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Bis(2-ethylhexyl) phthalate	70	U	70	51	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Butyl benzyl phthalate	70	U	70	22	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Caprolactam	330	U	330	75	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Carbazole	50	U	50	19	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Chrysene	15	U	15	1.5	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Dibenz(a,h)anthracene	15	U	15	6.9	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Dibenzofuran	50	U	50	13	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Diethyl phthalate	70	U	70	31	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Dimethyl phthalate	70	U	70	14	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Di-n-butyl phthalate	70	U	70	22	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Di-n-octyl phthalate	70	U	70	28	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Fluoranthene	15	U	15	4.5	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Fluorene	15	U	15	2.7	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Hexachlorobenzene	15	U	15	2.9	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Hexachlorobutadiene	50	U	50	12	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Hexachlorocyclopentadiene	330	U	330	62	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Hexachloroethane	50	U	50	9.0	ug/Kg		03/16/19 10:43	03/19/19 11:14	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-371874/6-A
Matrix: Solid
Analysis Batch: 372162

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 371874

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	15	U	15	7.4	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Isophorone	50	U	50	12	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Naphthalene	15	U	15	2.4	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Nitrobenzene	100	U	100	13	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
N-Nitrosodi-n-propylamine	50	U	50	11	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
N-Nitrosodiphenylamine	50	U	50	12	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Pentachlorophenol	150	U	150	58	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Phenol	50	U	50	8.0	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Phenanthrene	15	U	15	2.2	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
Pyrene	15	U	15	2.1	ug/Kg		03/16/19 10:43	03/19/19 11:14	1
3 & 4 Methylphenol	400	U	400	29	ug/Kg		03/16/19 10:43	03/19/19 11:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*89*		*32 - 120*	*03/16/19 10:43*	*03/19/19 11:14*	*1*
2-Fluorophenol (Surr)	*96*		*29 - 120*	*03/16/19 10:43*	*03/19/19 11:14*	*1*
2,4,6-Tribromophenol (Surr)	*33*		*10 - 120*	*03/16/19 10:43*	*03/19/19 11:14*	*1*
Nitrobenzene-d5 (Surr)	*90*		*30 - 120*	*03/16/19 10:43*	*03/19/19 11:14*	*1*
Phenol-d5 (Surr)	*97*		*29 - 120*	*03/16/19 10:43*	*03/19/19 11:14*	*1*
Terphenyl-d14 (Surr)	*102*		*41 - 120*	*03/16/19 10:43*	*03/19/19 11:14*	*1*

Lab Sample ID: LCS 240-371874/7-A
Matrix: Solid
Analysis Batch: 372162

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371874

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	667	541		ug/Kg		81	48 - 120
bis (2-chloroisopropyl) ether	667	545		ug/Kg		82	37 - 120
2,4,5-Trichlorophenol	667	524		ug/Kg		79	34 - 120
2,4,6-Trichlorophenol	667	441		ug/Kg		66	19 - 120
2,4-Dichlorophenol	667	532		ug/Kg		80	48 - 120
2,4-Dimethylphenol	667	528		ug/Kg		79	37 - 120
2,4-Dinitrophenol	1330	450		ug/Kg		34	10 - 120
2,4-Dinitrotoluene	667	607		ug/Kg		91	53 - 120
2,6-Dinitrotoluene	667	561		ug/Kg		84	54 - 120
2-Chloronaphthalene	667	532		ug/Kg		80	49 - 120
2-Chlorophenol	667	562		ug/Kg		84	50 - 120
2-Methylnaphthalene	667	553		ug/Kg		83	49 - 120
2-Methylphenol	667	575		ug/Kg		86	49 - 120
2-Nitroaniline	667	591		ug/Kg		89	46 - 120
2-Nitrophenol	667	621		ug/Kg		93	46 - 120
3,3'-Dichlorobenzidine	1330	774		ug/Kg		58	40 - 120
3-Nitroaniline	667	432		ug/Kg		65	48 - 120
4,6-Dinitro-2-methylphenol	1330	856		ug/Kg		64	18 - 120
4-Bromophenyl phenyl ether	667	549		ug/Kg		82	51 - 120
4-Chloro-3-methylphenol	667	549		ug/Kg		82	47 - 120
4-Chloroaniline	667	303		ug/Kg		45	37 - 120
4-Chlorophenyl phenyl ether	667	536		ug/Kg		80	49 - 120
4-Nitroaniline	667	543		ug/Kg		81	49 - 120

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-371874/7-A
Matrix: Solid
Analysis Batch: 372162

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371874

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Nitrophenol	1330	849		ug/Kg		64	42 - 120
Acenaphthene	667	550		ug/Kg		83	48 - 120
Acenaphthylene	667	537		ug/Kg		80	46 - 120
Acetophenone	667	540		ug/Kg		81	46 - 120
Anthracene	667	559		ug/Kg		84	51 - 120
Atrazine	1330	1220		ug/Kg		91	57 - 120
Benzaldehyde	1330	1120		ug/Kg		84	48 - 120
Benzo[a]anthracene	667	581		ug/Kg		87	53 - 120
Benzo[a]pyrene	667	555		ug/Kg		83	50 - 120
Benzo[b]fluoranthene	667	630		ug/Kg		94	48 - 120
Benzo[g,h,i]perylene	667	575		ug/Kg		86	50 - 120
Benzo[k]fluoranthene	667	553		ug/Kg		83	51 - 120
Bis(2-chloroethoxy)methane	667	547		ug/Kg		82	50 - 120
Bis(2-chloroethyl)ether	667	541		ug/Kg		81	48 - 120
Bis(2-ethylhexyl) phthalate	667	639		ug/Kg		96	52 - 120
Butyl benzyl phthalate	667	603		ug/Kg		91	53 - 120
Caprolactam	1330	1200		ug/Kg		90	59 - 120
Carbazole	667	576		ug/Kg		86	56 - 120
Chrysene	667	558		ug/Kg		84	54 - 120
Dibenz(a,h)anthracene	667	536		ug/Kg		80	48 - 120
Dibenzofuran	667	526		ug/Kg		79	49 - 120
Diethyl phthalate	667	563		ug/Kg		84	52 - 120
Dimethyl phthalate	667	556		ug/Kg		83	53 - 120
Di-n-butyl phthalate	667	579		ug/Kg		87	56 - 120
Di-n-octyl phthalate	667	550		ug/Kg		83	42 - 120
Fluoranthene	667	596		ug/Kg		89	53 - 120
Fluorene	667	560		ug/Kg		84	50 - 120
Hexachlorobenzene	667	573		ug/Kg		86	46 - 120
Hexachlorobutadiene	667	516		ug/Kg		77	44 - 120
Hexachlorocyclopentadiene	667	272	J	ug/Kg		41	14 - 120
Hexachloroethane	667	538		ug/Kg		81	45 - 120
Indeno[1,2,3-cd]pyrene	667	561		ug/Kg		84	49 - 120
Isophorone	667	545		ug/Kg		82	47 - 120
Naphthalene	667	518		ug/Kg		78	48 - 120
Nitrobenzene	667	567		ug/Kg		85	48 - 120
N-Nitrosodi-n-propylamine	667	529		ug/Kg		79	49 - 120
N-Nitrosodiphenylamine	667	549		ug/Kg		82	53 - 120
Pentachlorophenol	1330	587		ug/Kg		44	14 - 120
Phenol	667	614		ug/Kg		92	49 - 120
Phenanthrene	667	554		ug/Kg		83	52 - 120
Pyrene	667	559		ug/Kg		84	55 - 120
3 & 4 Methylphenol	667	569		ug/Kg		85	50 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*81*		*32 - 120*
2-Fluorophenol (Surr)	*91*		*29 - 120*
2,4,6-Tribromophenol (Surr)	*55*		*10 - 120*
Nitrobenzene-d5 (Surr)	*85*		*30 - 120*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-371874/7-A
Matrix: Solid
Analysis Batch: 372162

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371874

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Phenol-d5 (Surr)	*93*		*29 - 120*
Terphenyl-d14 (Surr)	*95*		*41 - 120*

Lab Sample ID: 240-109180-10 MS
Matrix: Solid
Analysis Batch: 372162

Client Sample ID: SB05-0-2
Prep Type: Total/NA
Prep Batch: 371874

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	110	U	707	597		ug/Kg	☼	84	33 - 120
bis (2-chloroisopropyl) ether	210	U	707	487		ug/Kg	☼	69	26 - 120
2,4,5-Trichlorophenol	320	U	707	533		ug/Kg	☼	75	20 - 120
2,4,6-Trichlorophenol	320	U	707	530		ug/Kg	☼	75	19 - 120
2,4-Dichlorophenol	320	U	707	545		ug/Kg	☼	77	32 - 120
2,4-Dimethylphenol	320	U	707	546		ug/Kg	☼	77	28 - 120
2,4-Dinitrophenol	700	U F1	1410	700	U F1	ug/Kg	☼	0	10 - 120
2,4-Dinitrotoluene	420	U	707	609		ug/Kg	☼	86	38 - 120
2,6-Dinitrotoluene	420	U	707	601		ug/Kg	☼	85	43 - 120
2-Chloronaphthalene	110	U	707	553		ug/Kg	☼	78	35 - 120
2-Chlorophenol	110	U	707	510		ug/Kg	☼	72	30 - 120
2-Methylnaphthalene	150		707	713		ug/Kg	☼	80	31 - 120
2-Methylphenol	420	U	707	529		ug/Kg	☼	75	31 - 120
2-Nitroaniline	420	U	707	670		ug/Kg	☼	95	29 - 120
2-Nitrophenol	110	U	707	559		ug/Kg	☼	79	26 - 120
3,3'-Dichlorobenzidine	210	U	1410	446		ug/Kg	☼	32	10 - 120
3-Nitroaniline	420	U	707	449		ug/Kg	☼	64	21 - 120
4,6-Dinitro-2-methylphenol	700	U	1410	385	J	ug/Kg	☼	27	10 - 120
4-Bromophenyl phenyl ether	110	U	707	576		ug/Kg	☼	82	44 - 120
4-Chloro-3-methylphenol	320	U	707	585		ug/Kg	☼	83	31 - 120
4-Chloroaniline	320	U	707	358		ug/Kg	☼	51	15 - 120
4-Chlorophenyl phenyl ether	110	U	707	589		ug/Kg	☼	83	41 - 120
4-Nitroaniline	420	U	707	529		ug/Kg	☼	75	23 - 120
4-Nitrophenol	700	U	1410	918		ug/Kg	☼	65	32 - 120
Acenaphthene	87		707	696		ug/Kg	☼	86	36 - 120
Acenaphthylene	39		707	583		ug/Kg	☼	77	35 - 120
Acetophenone	210	U	707	504		ug/Kg	☼	71	31 - 120
Anthracene	230		707	799		ug/Kg	☼	80	42 - 120
Atrazine	420	U	1410	1230		ug/Kg	☼	87	41 - 120
Benzaldehyde	210	U	1410	941		ug/Kg	☼	67	28 - 120
Benzo[a]anthracene	740		707	1360		ug/Kg	☼	87	35 - 120
Benzo[a]pyrene	710		707	1300		ug/Kg	☼	84	33 - 120
Benzo[b]fluoranthene	1100		707	1750		ug/Kg	☼	89	26 - 120
Benzo[g,h,i]perylene	640		707	1180		ug/Kg	☼	77	16 - 120
Benzo[k]fluoranthene	380		707	996		ug/Kg	☼	87	33 - 120
Bis(2-chloroethoxy)methane	210	U	707	531		ug/Kg	☼	75	36 - 120
Bis(2-chloroethyl)ether	210	U	707	453		ug/Kg	☼	64	33 - 120
Bis(2-ethylhexyl) phthalate	150	U	707	810		ug/Kg	☼	115	40 - 120
Butyl benzyl phthalate	150	U	707	661		ug/Kg	☼	94	46 - 120
Caprolactam	700	U	1410	1240		ug/Kg	☼	88	33 - 128

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-109180-10 MS
Matrix: Solid
Analysis Batch: 372162

Client Sample ID: SB05-0-2
Prep Type: Total/NA
Prep Batch: 371874

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbazole	120		707	733		ug/Kg	☼	87	35 - 120
Chrysene	790		707	1350		ug/Kg	☼	80	33 - 120
Dibenz(a,h)anthracene	120		707	657		ug/Kg	☼	75	30 - 120
Dibenzofuran	97	J	707	667		ug/Kg	☼	81	37 - 120
Diethyl phthalate	150	U	707	612		ug/Kg	☼	87	44 - 120
Dimethyl phthalate	150	U	707	576		ug/Kg	☼	81	42 - 120
Di-n-butyl phthalate	150	U	707	594		ug/Kg	☼	84	45 - 120
Di-n-octyl phthalate	150	U	707	600		ug/Kg	☼	85	35 - 120
Fluoranthene	1600		707	2190		ug/Kg	☼	81	26 - 121
Fluorene	76		707	666		ug/Kg	☼	83	36 - 120
Hexachlorobenzene	32	U	707	582		ug/Kg	☼	82	36 - 120
Hexachlorobutadiene	110	U	707	461		ug/Kg	☼	65	31 - 120
Hexachlorocyclopentadiene	700	U F1	707	700	U F1	ug/Kg	☼	0	10 - 120
Hexachloroethane	110	U	707	431		ug/Kg	☼	61	15 - 120
Indeno[1,2,3-cd]pyrene	480		707	1020		ug/Kg	☼	76	24 - 120
Isophorone	110	U	707	509		ug/Kg	☼	72	34 - 120
Naphthalene	200		707	728		ug/Kg	☼	74	29 - 120
Nitrobenzene	210	U	707	492		ug/Kg	☼	70	33 - 120
N-Nitrosodi-n-propylamine	110	U	707	508		ug/Kg	☼	72	32 - 120
N-Nitrosodiphenylamine	110	U	707	633		ug/Kg	☼	90	29 - 120
Pentachlorophenol	320	U	1410	251	J	ug/Kg	☼	18	10 - 120
Phenol	110	U	707	589		ug/Kg	☼	83	21 - 120
Phenanthrene	1000		707	1530		ug/Kg	☼	71	28 - 120
Pyrene	1300		707	1860		ug/Kg	☼	73	28 - 120
3 & 4 Methylphenol	850	U	707	571	J	ug/Kg	☼	81	33 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*78*		*32 - 120*
2-Fluorophenol (Surr)	*79*		*29 - 120*
2,4,6-Tribromophenol (Surr)	*69*		*10 - 120*
Nitrobenzene-d5 (Surr)	*75*		*30 - 120*
Phenol-d5 (Surr)	*81*		*29 - 120*
Terphenyl-d14 (Surr)	*90*		*41 - 120*

Lab Sample ID: 240-109180-10 MSD
Matrix: Solid
Analysis Batch: 372162

Client Sample ID: SB05-0-2
Prep Type: Total/NA
Prep Batch: 371874

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1'-Biphenyl	110	U	719	570		ug/Kg	☼	79	33 - 120	5	33
bis (2-chloroisopropyl) ether	210	U	719	522		ug/Kg	☼	73	26 - 120	7	31
2,4,5-Trichlorophenol	320	U	719	553		ug/Kg	☼	77	20 - 120	4	38
2,4,6-Trichlorophenol	320	U	719	534		ug/Kg	☼	74	19 - 120	1	36
2,4-Dichlorophenol	320	U	719	574		ug/Kg	☼	80	32 - 120	5	32
2,4-Dimethylphenol	320	U	719	591		ug/Kg	☼	82	28 - 120	8	35
2,4-Dinitrophenol	700	U F1	1440	710	U F1	ug/Kg	☼	0	10 - 120	NC	40
2,4-Dinitrotoluene	420	U	719	586		ug/Kg	☼	82	38 - 120	4	27
2,6-Dinitrotoluene	420	U	719	540		ug/Kg	☼	75	43 - 120	11	31

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-109180-10 MSD
Matrix: Solid
Analysis Batch: 372162

Client Sample ID: SB05-0-2
Prep Type: Total/NA
Prep Batch: 371874

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloronaphthalene	110	U	719	532		ug/Kg	☼	74	35 - 120	4	30
2-Chlorophenol	110	U	719	541		ug/Kg	☼	75	30 - 120	6	37
2-Methylnaphthalene	150		719	772		ug/Kg	☼	87	31 - 120	8	33
2-Methylphenol	420	U	719	545		ug/Kg	☼	76	31 - 120	3	36
2-Nitroaniline	420	U	719	598		ug/Kg	☼	83	29 - 120	11	31
2-Nitrophenol	110	U	719	605		ug/Kg	☼	84	26 - 120	8	38
3,3'-Dichlorobenzidine	210	U	1440	478		ug/Kg	☼	33	10 - 120	7	40
3-Nitroaniline	420	U	719	435		ug/Kg	☼	60	21 - 120	3	40
4,6-Dinitro-2-methylphenol	700	U	1440	379	J	ug/Kg	☼	26	10 - 120	2	40
4-Bromophenyl phenyl ether	110	U	719	612		ug/Kg	☼	85	44 - 120	6	40
4-Chloro-3-methylphenol	320	U	719	606		ug/Kg	☼	84	31 - 120	4	25
4-Chloroaniline	320	U	719	369		ug/Kg	☼	51	15 - 120	3	36
4-Chlorophenyl phenyl ether	110	U	719	551		ug/Kg	☼	77	41 - 120	7	40
4-Nitroaniline	420	U	719	473		ug/Kg	☼	66	23 - 120	11	40
4-Nitrophenol	700	U	1440	946		ug/Kg	☼	66	32 - 120	3	31
Acenaphthene	87		719	651		ug/Kg	☼	78	36 - 120	7	28
Acenaphthylene	39		719	571		ug/Kg	☼	74	35 - 120	2	26
Acetophenone	210	U	719	520		ug/Kg	☼	72	31 - 120	3	40
Anthracene	230		719	815		ug/Kg	☼	81	42 - 120	2	32
Atrazine	420	U	1440	1250		ug/Kg	☼	87	41 - 120	2	26
Benzaldehyde	210	U	1440	1050		ug/Kg	☼	73	28 - 120	11	40
Benzo[a]anthracene	740		719	1350		ug/Kg	☼	85	35 - 120	1	40
Benzo[a]pyrene	710		719	1290		ug/Kg	☼	81	33 - 120	1	40
Benzo[b]fluoranthene	1100		719	1810		ug/Kg	☼	96	26 - 120	3	40
Benzo[g,h,i]perylene	640		719	1120		ug/Kg	☼	66	16 - 120	6	40
Benzo[k]fluoranthene	380		719	992		ug/Kg	☼	85	33 - 120	0	40
Bis(2-chloroethoxy)methane	210	U	719	548		ug/Kg	☼	76	36 - 120	3	33
Bis(2-chloroethyl)ether	210	U	719	491		ug/Kg	☼	68	33 - 120	8	36
Bis(2-ethylhexyl) phthalate	150	U	719	838		ug/Kg	☼	116	40 - 120	3	28
Butyl benzyl phthalate	150	U	719	643		ug/Kg	☼	89	46 - 120	3	39
Caprolactam	700	U	1440	1240		ug/Kg	☼	86	33 - 128	0	40
Carbazole	120		719	715		ug/Kg	☼	83	35 - 120	2	34
Chrysene	790		719	1360		ug/Kg	☼	79	33 - 120	0	40
Dibenz(a,h)anthracene	120		719	674		ug/Kg	☼	76	30 - 120	2	40
Dibenzofuran	97	J	719	638		ug/Kg	☼	75	37 - 120	4	28
Diethyl phthalate	150	U	719	604		ug/Kg	☼	84	44 - 120	1	26
Dimethyl phthalate	150	U	719	571		ug/Kg	☼	79	42 - 120	1	35
Di-n-butyl phthalate	150	U	719	584		ug/Kg	☼	81	45 - 120	2	28
Di-n-octyl phthalate	150	U	719	593		ug/Kg	☼	82	35 - 120	1	33
Fluoranthene	1600		719	2190		ug/Kg	☼	80	26 - 121	0	40
Fluorene	76		719	621		ug/Kg	☼	76	36 - 120	7	28
Hexachlorobenzene	32	U	719	560		ug/Kg	☼	78	36 - 120	4	25
Hexachlorobutadiene	110	U	719	519		ug/Kg	☼	72	31 - 120	12	35
Hexachlorocyclopentadiene	700	U F1	719	710	U F1	ug/Kg	☼	0	10 - 120	NC	40
Hexachloroethane	110	U	719	467		ug/Kg	☼	65	15 - 120	8	40
Indeno[1,2,3-cd]pyrene	480		719	1050		ug/Kg	☼	79	24 - 120	3	40
Isophorone	110	U	719	539		ug/Kg	☼	75	34 - 120	6	32
Naphthalene	200		719	712		ug/Kg	☼	71	29 - 120	2	34
Nitrobenzene	210	U	719	550		ug/Kg	☼	76	33 - 120	11	40

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-109180-10 MSD — **Client Sample ID: SB05-0-2**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 372162 — **Prep Batch: 371874**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
N-Nitrosodi-n-propylamine	110	U	719	548		ug/Kg	☼	76	32 - 120	8	32
N-Nitrosodiphenylamine	110	U	719	624		ug/Kg	☼	87	29 - 120	2	30
Pentachlorophenol	320	U	1440	231	J	ug/Kg	☼	16	10 - 120	8	40
Phenol	110	U	719	602		ug/Kg	☼	84	21 - 120	2	40
Phenanthrene	1000		719	1650		ug/Kg	☼	87	28 - 120	8	40
Pyrene	1300		719	1870		ug/Kg	☼	74	28 - 120	1	40
3 & 4 Methylphenol	850	U	719	550	J	ug/Kg	☼	76	33 - 120	4	29

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*76*		*32 - 120*
2-Fluorophenol (Surr)	*79*		*29 - 120*
2,4,6-Tribromophenol (Surr)	*67*		*10 - 120*
Nitrobenzene-d5 (Surr)	*78*		*30 - 120*
Phenol-d5 (Surr)	*83*		*29 - 120*
Terphenyl-d14 (Surr)	*85*		*41 - 120*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 240-371014/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371354 — **Prep Batch: 371014**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.0	U	1.0	0.32	mg/Kg		03/11/19 14:00	03/12/19 16:20	1
Antimony	1.0	U	1.0	0.36	mg/Kg		03/11/19 14:00	03/12/19 16:20	1
Barium	20	U	20	0.36	mg/Kg		03/11/19 14:00	03/12/19 16:20	1
Beryllium	0.50	U	0.50	0.054	mg/Kg		03/11/19 14:00	03/12/19 16:20	1
Cadmium	0.20	U	0.20	0.048	mg/Kg		03/11/19 14:00	03/12/19 16:20	1
Chromium	0.50	U	0.50	0.15	mg/Kg		03/11/19 14:00	03/12/19 16:20	1
Cobalt	1.0	U	1.0	0.20	mg/Kg		03/11/19 14:00	03/12/19 16:20	1
Copper	2.5	U	2.5	0.24	mg/Kg		03/11/19 14:00	03/12/19 16:20	1
Lead	1.0	U	1.0	0.28	mg/Kg		03/11/19 14:00	03/12/19 16:20	1
Nickel	4.0	U	4.0	0.23	mg/Kg		03/11/19 14:00	03/12/19 16:20	1
Selenium	1.5	U	1.5	0.47	mg/Kg		03/11/19 14:00	03/12/19 16:20	1
Magnesium	500	U	500	46	mg/Kg		03/11/19 14:00	03/12/19 16:20	1
Thallium	1.0	U	1.0	0.40	mg/Kg		03/11/19 14:00	03/12/19 16:20	1
Tin	10	U	10	3.6	mg/Kg		03/11/19 14:00	03/12/19 16:20	1
Manganese	1.11	J	1.5	0.31	mg/Kg		03/11/19 14:00	03/12/19 16:20	1
Vanadium	5.0	U	5.0	0.82	mg/Kg		03/11/19 14:00	03/12/19 16:20	1
Silver	0.233	J	0.50	0.081	mg/Kg		03/11/19 14:00	03/12/19 16:20	1
Zinc	5.0	U	5.0	1.4	mg/Kg		03/11/19 14:00	03/12/19 16:20	1
Sodium	500	U	500	63	mg/Kg		03/11/19 14:00	03/12/19 16:20	1
Iron	10	U	10	6.9	mg/Kg		03/11/19 14:00	03/12/19 16:20	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 240-371014/2-A
Matrix: Solid
Analysis Batch: 371354

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371014

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	200	196		mg/Kg		98	80 - 120
Antimony	50.0	47.9		mg/Kg		96	80 - 120
Barium	200	186		mg/Kg		93	80 - 120
Beryllium	5.00	4.54		mg/Kg		91	80 - 120
Cadmium	5.00	4.89		mg/Kg		98	80 - 120
Chromium	20.0	19.1		mg/Kg		95	80 - 120
Cobalt	50.0	47.1		mg/Kg		94	80 - 120
Copper	25.0	24.5		mg/Kg		98	80 - 120
Lead	50.0	46.2		mg/Kg		92	80 - 120
Nickel	50.0	47.5		mg/Kg		95	80 - 120
Selenium	200	197		mg/Kg		99	80 - 120
Magnesium	5000	4840		mg/Kg		97	80 - 120
Thallium	200	188		mg/Kg		94	80 - 120
Tin	200	191		mg/Kg		95	80 - 120
Manganese	50.0	48.4		mg/Kg		97	80 - 120
Vanadium	50.0	48.1		mg/Kg		96	80 - 120
Silver	5.00	5.13		mg/Kg		103	80 - 120
Zinc	50.0	47.5		mg/Kg		95	80 - 120
Sodium	5000	4820		mg/Kg		96	80 - 120
Iron	100	101		mg/Kg		101	80 - 120

Lab Sample ID: 240-109180-9 MS
Matrix: Solid
Analysis Batch: 371354

Client Sample ID: SB04-6-8
Prep Type: Total/NA
Prep Batch: 371014

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	3.2		210	205		mg/Kg	☼	96	75 - 125
Lead	7.1		52.4	50.8		mg/Kg	☼	83	75 - 125
Selenium	0.78	J	210	202		mg/Kg	☼	96	75 - 125
Thallium	0.84	U	210	196		mg/Kg	☼	93	75 - 125
Antimony	0.84	U	52.4	44.1		mg/Kg	☼	84	75 - 125
Barium	9.4	J	210	198		mg/Kg	☼	90	75 - 125
Beryllium	0.072	J	5.24	5.07	^	mg/Kg	☼	95	75 - 125
Cadmium	0.081	J	5.24	5.03		mg/Kg	☼	94	75 - 125
Chromium	23	F1	21.0	28.2	F1	mg/Kg	☼	24	75 - 125
Cobalt	3.5		52.4	52.3		mg/Kg	☼	93	75 - 125
Copper	9.0		26.2	29.0		mg/Kg	☼	76	75 - 125
Nickel	6.2		52.4	54.4		mg/Kg	☼	92	75 - 125
Silver	0.20	J B	5.24	5.32		mg/Kg	☼	98	75 - 125
Magnesium	11000	F1 F2	5240	19800	F1	mg/Kg	☼	159	75 - 125
Tin	3.0	J	210	201		mg/Kg	☼	96	75 - 125
Manganese	360	B	52.4	270	4	mg/Kg	☼	-171	75 - 125
Vanadium	13		52.4	59.6		mg/Kg	☼	90	75 - 125
Zinc	24		52.4	68.3		mg/Kg	☼	84	75 - 125
Sodium	77	J	5240	5040		mg/Kg	☼	95	75 - 125
Iron	9300	F2	105	6540	4	mg/Kg	☼	-2643	75 - 125

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 240-109180-9 MSD
Matrix: Solid
Analysis Batch: 371354

Client Sample ID: SB04-6-8
Prep Type: Total/NA
Prep Batch: 371014

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	3.2		210	206		mg/Kg	☼	97	75 - 125	1	20
Lead	7.1		52.4	50.7		mg/Kg	☼	83	75 - 125	0	20
Selenium	0.78	J	210	204		mg/Kg	☼	97	75 - 125	1	20
Thallium	0.84	U	210	198		mg/Kg	☼	94	75 - 125	1	20
Antimony	0.84	U	52.4	44.8		mg/Kg	☼	85	75 - 125	1	20
Barium	9.4	J	210	199		mg/Kg	☼	90	75 - 125	0	20
Beryllium	0.072	J	5.24	5.08	^	mg/Kg	☼	96	75 - 125	0	20
Cadmium	0.081	J	5.24	5.08		mg/Kg	☼	95	75 - 125	1	20
Chromium	23	F1	21.0	25.7	F1	mg/Kg	☼	12	75 - 125	9	20
Cobalt	3.5		52.4	51.6		mg/Kg	☼	92	75 - 125	1	20
Copper	9.0		26.2	28.9		mg/Kg	☼	76	75 - 125	0	20
Nickel	6.2		52.4	53.2		mg/Kg	☼	90	75 - 125	2	20
Silver	0.20	J B	5.24	5.43		mg/Kg	☼	100	75 - 125	2	20
Magnesium	11000	F1 F2	5240	25300	F1 F2	mg/Kg	☼	263	75 - 125	24	20
Tin	3.0	J	210	203		mg/Kg	☼	97	75 - 125	1	20
Manganese	360	B	52.4	272	4	mg/Kg	☼	-167	75 - 125	1	20
Vanadium	13		52.4	57.7		mg/Kg	☼	86	75 - 125	3	20
Zinc	24		52.4	64.2		mg/Kg	☼	77	75 - 125	6	20
Sodium	77	J	5240	5130		mg/Kg	☼	96	75 - 125	2	20
Iron	9300	F2	105	5280	4 F2	mg/Kg	☼	-3842	75 - 125	21	20

Lab Sample ID: MB 240-371025/1-A
Matrix: Solid
Analysis Batch: 371350

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 371025

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.0	U	1.0	0.32	mg/Kg		03/11/19 14:00	03/12/19 19:28	1
Antimony	1.0	U	1.0	0.36	mg/Kg		03/11/19 14:00	03/12/19 19:28	1
Barium	20	U	20	0.36	mg/Kg		03/11/19 14:00	03/12/19 19:28	1
Beryllium	0.50	U	0.50	0.054	mg/Kg		03/11/19 14:00	03/12/19 19:28	1
Cadmium	0.20	U	0.20	0.048	mg/Kg		03/11/19 14:00	03/12/19 19:28	1
Chromium	0.50	U	0.50	0.15	mg/Kg		03/11/19 14:00	03/12/19 19:28	1
Cobalt	1.0	U	1.0	0.20	mg/Kg		03/11/19 14:00	03/12/19 19:28	1
Copper	2.5	U	2.5	0.24	mg/Kg		03/11/19 14:00	03/12/19 19:28	1
Lead	1.0	U	1.0	0.28	mg/Kg		03/11/19 14:00	03/12/19 19:28	1
Nickel	4.0	U	4.0	0.23	mg/Kg		03/11/19 14:00	03/12/19 19:28	1
Selenium	1.5	U	1.5	0.47	mg/Kg		03/11/19 14:00	03/12/19 19:28	1
Magnesium	500	U	500	46	mg/Kg		03/11/19 14:00	03/12/19 19:28	1
Thallium	1.0	U	1.0	0.40	mg/Kg		03/11/19 14:00	03/12/19 19:28	1
Tin	10	U	10	3.6	mg/Kg		03/11/19 14:00	03/12/19 19:28	1
Manganese	1.5	U	1.5	0.31	mg/Kg		03/11/19 14:00	03/12/19 19:28	1
Vanadium	5.0	U	5.0	0.82	mg/Kg		03/11/19 14:00	03/12/19 19:28	1
Silver	0.50	U	0.50	0.081	mg/Kg		03/11/19 14:00	03/12/19 19:28	1
Zinc	5.0	U	5.0	1.4	mg/Kg		03/11/19 14:00	03/12/19 19:28	1
Sodium	500	U	500	63	mg/Kg		03/11/19 14:00	03/12/19 19:28	1
Iron	10	U	10	6.9	mg/Kg		03/11/19 14:00	03/12/19 19:28	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 240-371025/2-A
Matrix: Solid
Analysis Batch: 371350

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371025

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	200	199		mg/Kg		99	80 - 120
Antimony	50.0	50.8		mg/Kg		102	80 - 120
Barium	200	193		mg/Kg		97	80 - 120
Beryllium	5.00	5.16		mg/Kg		103	80 - 120
Cadmium	5.00	4.88		mg/Kg		98	80 - 120
Chromium	20.0	19.5		mg/Kg		97	80 - 120
Cobalt	50.0	48.3		mg/Kg		97	80 - 120
Copper	25.0	24.7		mg/Kg		99	80 - 120
Lead	50.0	48.3		mg/Kg		97	80 - 120
Nickel	50.0	48.4		mg/Kg		97	80 - 120
Selenium	200	200		mg/Kg		100	80 - 120
Magnesium	5000	4970		mg/Kg		99	80 - 120
Thallium	200	193		mg/Kg		97	80 - 120
Tin	200	200		mg/Kg		100	80 - 120
Manganese	50.0	48.1		mg/Kg		96	80 - 120
Vanadium	50.0	49.2		mg/Kg		98	80 - 120
Silver	5.00	5.02		mg/Kg		100	80 - 120
Zinc	50.0	49.1		mg/Kg		98	80 - 120
Sodium	5000	5030		mg/Kg		101	80 - 120
Iron	100	100		mg/Kg		100	80 - 120

Lab Sample ID: 240-109180-10 MS
Matrix: Solid
Analysis Batch: 371350

Client Sample ID: SB05-0-2
Prep Type: Total/NA
Prep Batch: 371025

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	37	F1	52.5	70.5	F1	mg/Kg	☼	64	75 - 125
Antimony	1.1	U F1 F2	52.5	15.0	F1	mg/Kg	☼	29	75 - 125
Barium	140	F1	210	306		mg/Kg	☼	80	75 - 125
Beryllium	2.4	F1	5.25	6.64		mg/Kg	☼	80	75 - 125
Cadmium	0.59		5.25	4.73		mg/Kg	☼	79	75 - 125
Cobalt	1.2		52.5	50.2		mg/Kg	☼	93	75 - 125
Nickel	9.0		52.5	57.6		mg/Kg	☼	93	75 - 125
Silver	0.53	U	5.25	4.51		mg/Kg	☼	86	75 - 125
Magnesium	26000	F2	5250	26300	4	mg/Kg	☼	5	75 - 125
Tin	5.2	J	210	190		mg/Kg	☼	88	75 - 125
Vanadium	46	F1 F2	52.5	59.7	F1	mg/Kg	☼	27	75 - 125
Zinc	150	F1	52.5	173	F1	mg/Kg	☼	51	75 - 125
Sodium	810		5250	5050		mg/Kg	☼	81	75 - 125
Iron	26000		105	18600	4	mg/Kg	☼	-7072	75 - 125

Lab Sample ID: 240-109180-10 MS
Matrix: Solid
Analysis Batch: 371806

Client Sample ID: SB05-0-2
Prep Type: Total/NA
Prep Batch: 371025

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	3.7	J	210	195		mg/Kg	☼	91	75 - 125
Selenium	8.0	U	210	185		mg/Kg	☼	88	75 - 125
Thallium	6.7		210	175		mg/Kg	☼	80	75 - 125

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 240-109180-10 MS
Matrix: Solid
Analysis Batch: 371806

Client Sample ID: SB05-0-2
Prep Type: Total/NA
Prep Batch: 371025

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	120		21.0	70.2	4	mg/Kg	☼	-240	75 - 125
Copper	20		26.3	41.2		mg/Kg	☼	82	75 - 125
Manganese	4200		52.5	2110	4	mg/Kg	☼	-4019	75 - 125

Lab Sample ID: 240-109180-10 MSD
Matrix: Solid
Analysis Batch: 371350

Client Sample ID: SB05-0-2
Prep Type: Total/NA
Prep Batch: 371025

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	37	F1	52.5	74.7	F1	mg/Kg	☼	72	75 - 125	6	20
Antimony	1.1	U F1 F2	52.5	19.5	F1 F2	mg/Kg	☼	37	75 - 125	26	20
Barium	140	F1	210	258	F1	mg/Kg	☼	57	75 - 125	17	20
Beryllium	2.4	F1	5.25	5.85	F1	mg/Kg	☼	65	75 - 125	13	20
Cadmium	0.59		5.25	5.12		mg/Kg	☼	86	75 - 125	8	20
Cobalt	1.2		52.5	50.8		mg/Kg	☼	94	75 - 125	1	20
Nickel	9.0		52.5	56.5		mg/Kg	☼	90	75 - 125	2	20
Silver	0.53	U	5.25	4.82		mg/Kg	☼	92	75 - 125	7	20
Magnesium	26000	F2	5250	37800	4 F2	mg/Kg	☼	223	75 - 125	36	20
Tin	5.2	J	210	195		mg/Kg	☼	90	75 - 125	2	20
Vanadium	46	F1 F2	52.5	92.4	F2	mg/Kg	☼	89	75 - 125	43	20
Zinc	150	F1	52.5	165	F1	mg/Kg	☼	35	75 - 125	5	20
Sodium	810		5250	5280		mg/Kg	☼	85	75 - 125	4	20
Iron	26000		105	20200	4	mg/Kg	☼	-5542	75 - 125	8	20

Lab Sample ID: 240-109180-10 MSD
Matrix: Solid
Analysis Batch: 371806

Client Sample ID: SB05-0-2
Prep Type: Total/NA
Prep Batch: 371025

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	3.7	J	210	200		mg/Kg	☼	93	75 - 125	2	20
Selenium	8.0	U	210	189		mg/Kg	☼	90	75 - 125	3	20
Thallium	6.7		210	176		mg/Kg	☼	80	75 - 125	0	20
Chromium	120		21.0	89.4	4 F2	mg/Kg	☼	-149	75 - 125	24	20
Copper	20		26.3	39.4		mg/Kg	☼	75	75 - 125	5	20
Manganese	4200		52.5	2190	4	mg/Kg	☼	-3876	75 - 125	3	20

Lab Sample ID: MB 240-371008/1-A
Matrix: Water
Analysis Batch: 371350

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 371008

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10	U	10	4.1	ug/L		03/11/19 14:00	03/12/19 17:28	1
Antimony	10	U	10	7.5	ug/L		03/11/19 14:00	03/12/19 17:28	1
Barium	200	U	200	1.3	ug/L		03/11/19 14:00	03/12/19 17:28	1
Beryllium	5.0	U	5.0	0.60	ug/L		03/11/19 14:00	03/12/19 17:28	1
Cadmium	2.0	U	2.0	0.20	ug/L		03/11/19 14:00	03/12/19 17:28	1
Chromium	5.0	U	5.0	0.63	ug/L		03/11/19 14:00	03/12/19 17:28	1
Cobalt	10	U	10	0.75	ug/L		03/11/19 14:00	03/12/19 17:28	1
Copper	25	U	25	3.5	ug/L		03/11/19 14:00	03/12/19 17:28	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 240-371008/1-A
Matrix: Water
Analysis Batch: 371350

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 371008

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	5.0	U	5.0	2.8	ug/L		03/11/19 14:00	03/12/19 17:28	1
Nickel	40	U	40	2.2	ug/L		03/11/19 14:00	03/12/19 17:28	1
Selenium	15	U	15	6.0	ug/L		03/11/19 14:00	03/12/19 17:28	1
Magnesium	5000	U	5000	780	ug/L		03/11/19 14:00	03/12/19 17:28	1
Thallium	10	U	10	2.7	ug/L		03/11/19 14:00	03/12/19 17:28	1
Tin	100	U	100	5.3	ug/L		03/11/19 14:00	03/12/19 17:28	1
Manganese	15	U	15	2.1	ug/L		03/11/19 14:00	03/12/19 17:28	1
Vanadium	50	U	50	5.6	ug/L		03/11/19 14:00	03/12/19 17:28	1
Silver	5.0	U	5.0	0.62	ug/L		03/11/19 14:00	03/12/19 17:28	1
Zinc	50	U	50	9.7	ug/L		03/11/19 14:00	03/12/19 17:28	1
Sodium	5000	U	5000	560	ug/L		03/11/19 14:00	03/12/19 17:28	1
Iron	100	U	100	26	ug/L		03/11/19 14:00	03/12/19 17:28	1

Lab Sample ID: LCS 240-371008/2-A
Matrix: Water
Analysis Batch: 371350

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 371008

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	2000	2120		ug/L		106	80 - 120
Antimony	500	549		ug/L		110	80 - 120
Barium	2000	1980		ug/L		99	80 - 120
Beryllium	50.0	52.6		ug/L		105	80 - 120
Cadmium	50.0	52.1		ug/L		104	80 - 120
Chromium	200	197		ug/L		99	80 - 120
Cobalt	500	500		ug/L		100	80 - 120
Copper	250	259		ug/L		104	80 - 120
Lead	500	504		ug/L		101	80 - 120
Nickel	500	501		ug/L		100	80 - 120
Selenium	2000	2220		ug/L		111	80 - 120
Magnesium	50000	50100		ug/L		100	80 - 120
Thallium	2000	2000		ug/L		100	80 - 120
Tin	2000	2040		ug/L		102	80 - 120
Manganese	500	496		ug/L		99	80 - 120
Vanadium	500	501		ug/L		100	80 - 120
Silver	50.0	53.0		ug/L		106	80 - 120
Zinc	500	514		ug/L		103	80 - 120
Sodium	50000	50800		ug/L		102	80 - 120
Iron	1000	1000		ug/L		100	80 - 120

Lab Sample ID: 240-109180-25 MS
Matrix: Water
Analysis Batch: 371350

Client Sample ID: IMW-02-00001R
Prep Type: Total Recoverable
Prep Batch: 371008

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	10	U	500	512		ug/L		102	75 - 125
Arsenic	12		2000	2040		ug/L		102	75 - 125
Barium	32	J	2000	1940		ug/L		95	75 - 125
Beryllium	5.0	U	50.0	49.7		ug/L		99	75 - 125
Cadmium	0.41	J	50.0	50.8		ug/L		101	75 - 125

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 240-109180-25 MS
Matrix: Water
Analysis Batch: 371350

Client Sample ID: IMW-02-00001R
Prep Type: Total Recoverable
Prep Batch: 371008

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.93	J	500	494		ug/L		99	75 - 125
Chromium	20		200	214		ug/L		97	75 - 125
Copper	17	J	250	265		ug/L		99	75 - 125
Magnesium	18000		50000	65900		ug/L		97	75 - 125
Manganese	440		500	924		ug/L		97	75 - 125
Nickel	6.8	J	500	503		ug/L		99	75 - 125
Lead	23		500	495		ug/L		94	75 - 125
Selenium	15	U	2000	2120		ug/L		106	75 - 125
Tin	100	U	2000	2040		ug/L		102	75 - 125
Thallium	4.0	J	2000	2030		ug/L		101	75 - 125
Vanadium	12	J	500	498		ug/L		97	75 - 125
Zinc	54		500	563		ug/L		102	75 - 125
Silver	5.0	U	50.0	50.8		ug/L		102	75 - 125
Sodium	14000		50000	62900		ug/L		97	75 - 125
Iron	5400		1000	6260	4	ug/L		89	75 - 125

Lab Sample ID: 240-109180-25 MSD
Matrix: Water
Analysis Batch: 371350

Client Sample ID: IMW-02-00001R
Prep Type: Total Recoverable
Prep Batch: 371008

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	10	U	500	520		ug/L		104	75 - 125	2	20
Arsenic	12		2000	2070		ug/L		103	75 - 125	1	20
Barium	32	J	2000	1980		ug/L		98	75 - 125	2	20
Beryllium	5.0	U	50.0	49.9		ug/L		100	75 - 125	0	20
Cadmium	0.41	J	50.0	52.0		ug/L		103	75 - 125	2	20
Cobalt	0.93	J	500	503		ug/L		100	75 - 125	2	20
Chromium	20		200	218		ug/L		99	75 - 125	2	20
Copper	17	J	250	270		ug/L		101	75 - 125	2	20
Magnesium	18000		50000	67200		ug/L		99	75 - 125	2	20
Manganese	440		500	951		ug/L		102	75 - 125	3	20
Nickel	6.8	J	500	512		ug/L		101	75 - 125	2	20
Lead	23		500	502		ug/L		96	75 - 125	1	20
Selenium	15	U	2000	2130		ug/L		106	75 - 125	0	20
Tin	100	U	2000	2060		ug/L		103	75 - 125	1	20
Thallium	4.0	J	2000	2030		ug/L		101	75 - 125	0	20
Vanadium	12	J	500	512		ug/L		100	75 - 125	3	20
Zinc	54		500	573		ug/L		104	75 - 125	2	20
Silver	5.0	U	50.0	51.9		ug/L		104	75 - 125	2	20
Sodium	14000		50000	63900		ug/L		99	75 - 125	2	20
Iron	5400		1000	6470	4	ug/L		110	75 - 125	3	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-371016/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 371349 — **Prep Batch: 371016**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.13	ug/L		03/11/19 12:00	03/12/19 14:11	1

Lab Sample ID: LCS 240-371016/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 371349 — **Prep Batch: 371016**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	5.00	4.62		ug/L		92	80 - 120

Lab Sample ID: 240-109180-25 MS — **Client Sample ID: IMW-02-00001R**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 371349 — **Prep Batch: 371016**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.20	U	1.00	1.02		ug/L		102	80 - 120

Lab Sample ID: 240-109180-25 MSD — **Client Sample ID: IMW-02-00001R**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 371349 — **Prep Batch: 371016**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.20	U	1.00	0.927		ug/L		93	80 - 120	9	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 240-371011/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371515 — **Prep Batch: 371011**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.10	U	0.10	0.018	mg/Kg		03/11/19 16:00	03/13/19 10:36	1

Lab Sample ID: LCS 240-371011/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371515 — **Prep Batch: 371011**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	0.798		mg/Kg		96	80 - 120

Lab Sample ID: 240-109180-9 MS — **Client Sample ID: SB04-6-8**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371515 — **Prep Batch: 371011**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.12	U	0.208	0.207		mg/Kg	☼	99	80 - 120

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: 240-109180-9 MSD — **Client Sample ID: SB04-6-8**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371515 — **Prep Batch: 371011**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.12	U	0.208	0.198		mg/Kg	☼	95	80 - 120	4	20

Lab Sample ID: MB 240-371027/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371515 — **Prep Batch: 371027**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.10	U	0.10	0.018	mg/Kg		03/11/19 16:00	03/13/19 11:34	1

Lab Sample ID: LCS 240-371027/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371515 — **Prep Batch: 371027**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	0.778		mg/Kg		93	80 - 120

Lab Sample ID: 240-109180-10 MS — **Client Sample ID: SB05-0-2**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371515 — **Prep Batch: 371027**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.049	J	0.191	0.226		mg/Kg	☼	92	80 - 120

Lab Sample ID: 240-109180-10 MSD — **Client Sample ID: SB05-0-2**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371515 — **Prep Batch: 371027**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.049	J	0.191	0.223		mg/Kg	☼	91	80 - 120	1	20

Method: 9012A - Cyanide, Total and/or Amenable

Lab Sample ID: MB 240-371041/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 371126 — **Prep Batch: 371041**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		03/11/19 10:29	03/11/19 11:25	1

Lab Sample ID: LCS 240-371041/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 371126 — **Prep Batch: 371041**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.194	0.198		mg/L		102	59 - 129

Method: 9012A - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: MB 240-371097/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371139 — **Prep Batch: 371097**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.50	U	0.50	0.19	mg/Kg		03/11/19 13:18	03/11/19 15:26	1

Lab Sample ID: LCS 240-371097/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371139 — **Prep Batch: 371097**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	4.66	4.92		mg/Kg		106	65 - 128

Lab Sample ID: 240-109180-9 MS — **Client Sample ID: SB04-6-8**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371139 — **Prep Batch: 371097**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.59	U	0.997	1.03		mg/Kg	☼	103	24 - 140

Lab Sample ID: 240-109180-9 MSD — **Client Sample ID: SB04-6-8**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371139 — **Prep Batch: 371097**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.59	U	1.04	1.13		mg/Kg	☼	109	24 - 140	9	40

Lab Sample ID: 240-109180-10 MS — **Client Sample ID: SB05-0-2**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371139 — **Prep Batch: 371097**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.60		1.07	1.24		mg/Kg	☼	60	24 - 140

Lab Sample ID: 240-109180-10 MSD — **Client Sample ID: SB05-0-2**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371139 — **Prep Batch: 371097**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.60		0.989	1.04		mg/Kg	☼	45	24 - 140	17	40

Lab Sample ID: MRL 240-371126/10 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 371126

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0100	0.00970	J	mg/L		97	70 - 130

Lab Sample ID: MB 240-371273/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371296 — **Prep Batch: 371273**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.50	U	0.50	0.19	mg/Kg		03/12/19 13:31	03/12/19 14:17	1

QC Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Method: 9012A - Cyanide, Total and/or Amenable

Lab Sample ID: LCS 240-371273/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371296 — **Prep Batch: 371273**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	4.66	4.70		mg/Kg		101	65 - 128

Method: 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 240-371023/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371070 — **Prep Batch: 371023**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	30	U	30	15	mg/Kg		03/11/19 09:23	03/11/19 11:35	1

Lab Sample ID: LCS 240-371023/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371070 — **Prep Batch: 371023**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	73.5	45.4		mg/Kg		62	56 - 120

Lab Sample ID: 240-109180-9 MS — **Client Sample ID: SB04-6-8**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371070 — **Prep Batch: 371023**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	83		79.1	139		mg/Kg	☼	71	10 - 143

Lab Sample ID: 240-109180-9 MSD — **Client Sample ID: SB04-6-8**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371070 — **Prep Batch: 371023**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide	83		79.2	140		mg/Kg	☼	71	10 - 143	0	25

Lab Sample ID: 240-109180-10 MS — **Client Sample ID: SB05-0-2**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371070 — **Prep Batch: 371023**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	430		78.9	496	4	mg/Kg	☼	88	10 - 143

Lab Sample ID: 240-109180-10 MSD — **Client Sample ID: SB05-0-2**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371070 — **Prep Batch: 371023**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide	430		78.9	501	4	mg/Kg	☼	94	10 - 143	1	25

Method: 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric) (Continued)

Lab Sample ID: MB 240-371199/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371271 — **Prep Batch: 371199**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	30	U	30	15	mg/Kg		03/12/19 08:22	03/12/19 13:24	1

Lab Sample ID: MB 240-371199/20-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 371271 — **Prep Batch: 371199**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	3.0	U	3.0	1.4	mg/L		03/12/19 08:22	03/12/19 13:24	1

Lab Sample ID: LCS 240-371199/21-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 371271 — **Prep Batch: 371199**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	8.40	7.73		mg/L		92	70 - 120

Lab Sample ID: LCS 240-371199/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371271 — **Prep Batch: 371199**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	84.7	73.9		mg/Kg		87	56 - 120

Lab Sample ID: 240-109180-12 MS — **Client Sample ID: RINSE BLANK 1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 371271 — **Prep Batch: 371199**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	1.7	J	8.40	8.13		mg/L		76	32 - 130

Lab Sample ID: 240-109180-12 MSD — **Client Sample ID: RINSE BLANK 1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 371271 — **Prep Batch: 371199**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide	1.7	J	8.40	6.93		mg/L		62	32 - 130	16	30

Method: Moisture - Percent Moisture

Lab Sample ID: 240-109180-8 DU — **Client Sample ID: SB04-0-2**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 371137

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Solids	91.5		90.2		%		1	20
Percent Moisture	8.5		9.8		%		14	20

Method: Moisture - Percent Moisture (Continued)

Lab Sample ID: 240-109180-9 DU
Matrix: Solid
Analysis Batch: 371137

Client Sample ID: SB04-6-8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	92.6			92.8		%				0.2	20
Percent Moisture	7.4			7.2		%				3	20

Lab Sample ID: 240-109180-10 DU
Matrix: Solid
Analysis Batch: 371137

Client Sample ID: SB05-0-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	93.3			93.8		%				0.5	20
Percent Moisture	6.7			6.2		%				7	20

QC Association Summary

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

GC/MS VOA

Prep Batch: 371418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-1	SB01-0-2	Total/NA	Solid	5035	
240-109180-2	SB01-5-7	Total/NA	Solid	5035	
240-109180-3	SB02-0-2	Total/NA	Solid	5035	
240-109180-4	SB02-6-8	Total/NA	Solid	5035	
240-109180-5	SB03-0-2	Total/NA	Solid	5035	
240-109180-6	SB03-6-8	Total/NA	Solid	5035	
240-109180-7	9584-030519-0001	Total/NA	Solid	5035	
240-109180-9	SB04-6-8	Total/NA	Solid	5035	
MB 240-371418/1-A	Method Blank	Total/NA	Solid	5035	
LCS 240-371418/2-A	Lab Control Sample	Total/NA	Solid	5035	
240-109180-9 MS	SB04-6-8	Total/NA	Solid	5035	
240-109180-9 MSD	SB04-6-8	Total/NA	Solid	5035	

Prep Batch: 371452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-8	SB04-0-2	Total/NA	Solid	5035	
240-109180-10	SB05-0-2	Total/NA	Solid	5035	
240-109180-11	SB05-6-8	Total/NA	Solid	5035	
240-109180-14	9584-030619-0002	Total/NA	Solid	5035	
240-109180-15	SB06-0-2	Total/NA	Solid	5035	
240-109180-16	SB06-2-4	Total/NA	Solid	5035	
240-109180-17	SB07-0-2	Total/NA	Solid	5035	
240-109180-18	SB07-4-6	Total/NA	Solid	5035	
240-109180-19	SB09-0-2	Total/NA	Solid	5035	
240-109180-20	SB09-3-5	Total/NA	Solid	5035	
240-109180-21	SB10-0-2	Total/NA	Solid	5035	
240-109180-22	SB10-4-6	Total/NA	Solid	5035	
240-109180-23	SB08-0-2	Total/NA	Solid	5035	
240-109180-24	SB08-2-4	Total/NA	Solid	5035	
MB 240-371452/1-A	Method Blank	Total/NA	Solid	5035	
LCS 240-371452/2-A	Lab Control Sample	Total/NA	Solid	5035	
240-109180-10 MS	SB05-0-2	Total/NA	Solid	5035	
240-109180-10 MSD	SB05-0-2	Total/NA	Solid	5035	

Analysis Batch: 371479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-1	SB01-0-2	Total/NA	Solid	8260C	371418
240-109180-2	SB01-5-7	Total/NA	Solid	8260C	371418
240-109180-3	SB02-0-2	Total/NA	Solid	8260C	371418
240-109180-4	SB02-6-8	Total/NA	Solid	8260C	371418
240-109180-5	SB03-0-2	Total/NA	Solid	8260C	371418
240-109180-6	SB03-6-8	Total/NA	Solid	8260C	371418
240-109180-7	9584-030519-0001	Total/NA	Solid	8260C	371418
240-109180-9	SB04-6-8	Total/NA	Solid	8260C	371418
MB 240-371418/1-A	Method Blank	Total/NA	Solid	8260C	371418
LCS 240-371418/2-A	Lab Control Sample	Total/NA	Solid	8260C	371418
240-109180-9 MS	SB04-6-8	Total/NA	Solid	8260C	371418
240-109180-9 MSD	SB04-6-8	Total/NA	Solid	8260C	371418

QC Association Summary

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

GC/MS VOA

Analysis Batch: 371647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-12	RINSE BLANK 1	Total/NA	Water	8260C	
240-109180-13	RINSE BLANK 2	Total/NA	Water	8260C	
240-109180-30	TRIP BLANK 1	Total/NA	Water	8260C	
MB 240-371647/8	Method Blank	Total/NA	Water	8260C	
LCS 240-371647/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 240-371647/6	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 371671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-8	SB04-0-2	Total/NA	Solid	8260C	371452
240-109180-11	SB05-6-8	Total/NA	Solid	8260C	371452
240-109180-14	9584-030619-0002	Total/NA	Solid	8260C	371452
240-109180-15	SB06-0-2	Total/NA	Solid	8260C	371452
240-109180-16	SB06-2-4	Total/NA	Solid	8260C	371452
240-109180-17	SB07-0-2	Total/NA	Solid	8260C	371452
240-109180-18	SB07-4-6	Total/NA	Solid	8260C	371452
240-109180-19	SB09-0-2	Total/NA	Solid	8260C	371452
240-109180-20	SB09-3-5	Total/NA	Solid	8260C	371452
240-109180-21	SB10-0-2	Total/NA	Solid	8260C	371452
240-109180-22	SB10-4-6	Total/NA	Solid	8260C	371452
MB 240-371452/1-A	Method Blank	Total/NA	Solid	8260C	371452
LCS 240-371452/2-A	Lab Control Sample	Total/NA	Solid	8260C	371452

Analysis Batch: 371803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-10	SB05-0-2	Total/NA	Solid	8260C	371452
240-109180-23	SB08-0-2	Total/NA	Solid	8260C	371452
240-109180-24	SB08-2-4	Total/NA	Solid	8260C	371452
240-109180-10 MS	SB05-0-2	Total/NA	Solid	8260C	371452
240-109180-10 MSD	SB05-0-2	Total/NA	Solid	8260C	371452

Analysis Batch: 371838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-27	IFW-02-00022R	Total/NA	Water	8260C	
240-109180-28	9584-030819-0004	Total/NA	Water	8260C	
240-109180-29	IMW-02-0004S	Total/NA	Water	8260C	
MB 240-371838/7	Method Blank	Total/NA	Water	8260C	
LCS 240-371838/5	Lab Control Sample	Total/NA	Water	8260C	
240-109180-29 MS	IMW-02-0004S	Total/NA	Water	8260C	
240-109180-29 MSD	IMW-02-0004S	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 370982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-1	SB01-0-2	Total/NA	Solid	3540C	
240-109180-2	SB01-5-7	Total/NA	Solid	3540C	
240-109180-3	SB02-0-2	Total/NA	Solid	3540C	
240-109180-4	SB02-6-8	Total/NA	Solid	3540C	
240-109180-5	SB03-0-2	Total/NA	Solid	3540C	
240-109180-6	SB03-6-8	Total/NA	Solid	3540C	

GC/MS Semi VOA (Continued)

Prep Batch: 370982 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-7	9584-030519-0001	Total/NA	Solid	3540C	
MB 240-370982/23-A	Method Blank	Total/NA	Solid	3540C	
LCS 240-370982/24-A	Lab Control Sample	Total/NA	Solid	3540C	
240-109180-7 MS	9584-030519-0001	Total/NA	Solid	3540C	
240-109180-7 MSD	9584-030519-0001	Total/NA	Solid	3540C	

Prep Batch: 371076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-12	RINSE BLANK 1	Total/NA	Water	3510C	
240-109180-13	RINSE BLANK 2	Total/NA	Water	3510C	
MB 240-371076/18-A	Method Blank	Total/NA	Water	3510C	
LCS 240-371076/19-A	Lab Control Sample	Total/NA	Water	3510C	

Prep Batch: 371183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-8	SB04-0-2	Total/NA	Solid	3540C	
240-109180-9	SB04-6-8	Total/NA	Solid	3540C	
240-109180-14	9584-030619-0002	Total/NA	Solid	3540C	
240-109180-15	SB06-0-2	Total/NA	Solid	3540C	
240-109180-16	SB06-2-4	Total/NA	Solid	3540C	
MB 240-371183/21-A	Method Blank	Total/NA	Solid	3540C	
LCS 240-371183/22-A	Lab Control Sample	Total/NA	Solid	3540C	
240-109180-9 MS	SB04-6-8	Total/NA	Solid	3540C	
240-109180-9 MSD	SB04-6-8	Total/NA	Solid	3540C	

Analysis Batch: 371550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-7	9584-030519-0001	Total/NA	Solid	8270C	370982
240-109180-16	SB06-2-4	Total/NA	Solid	8270C	371183
MB 240-370982/23-A	Method Blank	Total/NA	Solid	8270C	370982
MB 240-371183/21-A	Method Blank	Total/NA	Solid	8270C	371183
LCS 240-371183/22-A	Lab Control Sample	Total/NA	Solid	8270C	371183
240-109180-7 MS	9584-030519-0001	Total/NA	Solid	8270C	370982
240-109180-7 MSD	9584-030519-0001	Total/NA	Solid	8270C	370982

Analysis Batch: 371701

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-370982/24-A	Lab Control Sample	Total/NA	Solid	8270C	370982

Prep Batch: 371871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-11	SB05-6-8	Total/NA	Solid	3540C	
240-109180-17	SB07-0-2	Total/NA	Solid	3540C	
240-109180-18	SB07-4-6	Total/NA	Solid	3540C	
240-109180-19	SB09-0-2	Total/NA	Solid	3540C	
240-109180-20	SB09-3-5	Total/NA	Solid	3540C	
240-109180-21	SB10-0-2	Total/NA	Solid	3540C	
240-109180-22	SB10-4-6	Total/NA	Solid	3540C	
240-109180-23	SB08-0-2	Total/NA	Solid	3540C	
240-109180-24	SB08-2-4	Total/NA	Solid	3540C	
MB 240-371871/23-A	Method Blank	Total/NA	Solid	3540C	

GC/MS Semi VOA (Continued)

Prep Batch: 371871 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-371871/24-A	Lab Control Sample	Total/NA	Solid	3540C	

Prep Batch: 371874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-10	SB05-0-2	Total/NA	Solid	3540C	
MB 240-371874/6-A	Method Blank	Total/NA	Solid	3540C	
LCS 240-371874/7-A	Lab Control Sample	Total/NA	Solid	3540C	
240-109180-10 MS	SB05-0-2	Total/NA	Solid	3540C	
240-109180-10 MSD	SB05-0-2	Total/NA	Solid	3540C	

Analysis Batch: 371953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-1	SB01-0-2	Total/NA	Solid	8270C	370982
240-109180-2	SB01-5-7	Total/NA	Solid	8270C	370982
240-109180-3	SB02-0-2	Total/NA	Solid	8270C	370982
240-109180-4	SB02-6-8	Total/NA	Solid	8270C	370982
240-109180-5	SB03-0-2	Total/NA	Solid	8270C	370982
240-109180-6	SB03-6-8	Total/NA	Solid	8270C	370982
240-109180-8	SB04-0-2	Total/NA	Solid	8270C	371183
240-109180-9	SB04-6-8	Total/NA	Solid	8270C	371183
240-109180-12	RINSE BLANK 1	Total/NA	Water	8270C	371076
240-109180-13	RINSE BLANK 2	Total/NA	Water	8270C	371076
240-109180-14	9584-030619-0002	Total/NA	Solid	8270C	371183
240-109180-15	SB06-0-2	Total/NA	Solid	8270C	371183
MB 240-371076/18-A	Method Blank	Total/NA	Water	8270C	371076
LCS 240-371076/19-A	Lab Control Sample	Total/NA	Water	8270C	371076
240-109180-9 MS	SB04-6-8	Total/NA	Solid	8270C	371183
240-109180-9 MSD	SB04-6-8	Total/NA	Solid	8270C	371183

Analysis Batch: 372162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-10	SB05-0-2	Total/NA	Solid	8270C	371874
MB 240-371874/6-A	Method Blank	Total/NA	Solid	8270C	371874
LCS 240-371874/7-A	Lab Control Sample	Total/NA	Solid	8270C	371874
240-109180-10 MS	SB05-0-2	Total/NA	Solid	8270C	371874
240-109180-10 MSD	SB05-0-2	Total/NA	Solid	8270C	371874

Analysis Batch: 372166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-11	SB05-6-8	Total/NA	Solid	8270C	371871
240-109180-17	SB07-0-2	Total/NA	Solid	8270C	371871
240-109180-18	SB07-4-6	Total/NA	Solid	8270C	371871
240-109180-19	SB09-0-2	Total/NA	Solid	8270C	371871
240-109180-20	SB09-3-5	Total/NA	Solid	8270C	371871
240-109180-21	SB10-0-2	Total/NA	Solid	8270C	371871
240-109180-22	SB10-4-6	Total/NA	Solid	8270C	371871
240-109180-23	SB08-0-2	Total/NA	Solid	8270C	371871
240-109180-24	SB08-2-4	Total/NA	Solid	8270C	371871
MB 240-371871/23-A	Method Blank	Total/NA	Solid	8270C	371871
LCS 240-371871/24-A	Lab Control Sample	Total/NA	Solid	8270C	371871

QC Association Summary

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Metals

Prep Batch: 371008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-12	RINSE BLANK 1	Total Recoverable	Water	3005A	
240-109180-13	RINSE BLANK 2	Total Recoverable	Water	3005A	
240-109180-25	IMW-02-00001R	Total Recoverable	Water	3005A	
240-109180-26	9584-030719-0003	Total Recoverable	Water	3005A	
MB 240-371008/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-371008/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-109180-25 MS	IMW-02-00001R	Total Recoverable	Water	3005A	
240-109180-25 MSD	IMW-02-00001R	Total Recoverable	Water	3005A	

Prep Batch: 371011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-1	SB01-0-2	Total/NA	Solid	7471A	
240-109180-2	SB01-5-7	Total/NA	Solid	7471A	
240-109180-3	SB02-0-2	Total/NA	Solid	7471A	
240-109180-4	SB02-6-8	Total/NA	Solid	7471A	
240-109180-5	SB03-0-2	Total/NA	Solid	7471A	
240-109180-6	SB03-6-8	Total/NA	Solid	7471A	
240-109180-7	9584-030519-0001	Total/NA	Solid	7471A	
240-109180-8	SB04-0-2	Total/NA	Solid	7471A	
240-109180-9	SB04-6-8	Total/NA	Solid	7471A	
240-109180-11	SB05-6-8	Total/NA	Solid	7471A	
240-109180-14	9584-030619-0002	Total/NA	Solid	7471A	
240-109180-15	SB06-0-2	Total/NA	Solid	7471A	
240-109180-16	SB06-2-4	Total/NA	Solid	7471A	
240-109180-17	SB07-0-2	Total/NA	Solid	7471A	
240-109180-18	SB07-4-6	Total/NA	Solid	7471A	
240-109180-19	SB09-0-2	Total/NA	Solid	7471A	
240-109180-20	SB09-3-5	Total/NA	Solid	7471A	
240-109180-21	SB10-0-2	Total/NA	Solid	7471A	
240-109180-22	SB10-4-6	Total/NA	Solid	7471A	
240-109180-23	SB08-0-2	Total/NA	Solid	7471A	
MB 240-371011/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 240-371011/2-A	Lab Control Sample	Total/NA	Solid	7471A	
240-109180-9 MS	SB04-6-8	Total/NA	Solid	7471A	
240-109180-9 MSD	SB04-6-8	Total/NA	Solid	7471A	

Prep Batch: 371014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-1	SB01-0-2	Total/NA	Solid	3050B	
240-109180-2	SB01-5-7	Total/NA	Solid	3050B	
240-109180-3	SB02-0-2	Total/NA	Solid	3050B	
240-109180-4	SB02-6-8	Total/NA	Solid	3050B	
240-109180-5	SB03-0-2	Total/NA	Solid	3050B	
240-109180-6	SB03-6-8	Total/NA	Solid	3050B	
240-109180-7	9584-030519-0001	Total/NA	Solid	3050B	
240-109180-8	SB04-0-2	Total/NA	Solid	3050B	
240-109180-9	SB04-6-8	Total/NA	Solid	3050B	
240-109180-11	SB05-6-8	Total/NA	Solid	3050B	
240-109180-14	9584-030619-0002	Total/NA	Solid	3050B	
240-109180-15	SB06-0-2	Total/NA	Solid	3050B	
240-109180-16	SB06-2-4	Total/NA	Solid	3050B	

Metals (Continued)

Prep Batch: 371014 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-17	SB07-0-2	Total/NA	Solid	3050B	
240-109180-18	SB07-4-6	Total/NA	Solid	3050B	
240-109180-19	SB09-0-2	Total/NA	Solid	3050B	
240-109180-20	SB09-3-5	Total/NA	Solid	3050B	
240-109180-21	SB10-0-2	Total/NA	Solid	3050B	
240-109180-22	SB10-4-6	Total/NA	Solid	3050B	
240-109180-23	SB08-0-2	Total/NA	Solid	3050B	
MB 240-371014/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 240-371014/2-A	Lab Control Sample	Total/NA	Solid	3050B	
240-109180-9 MS	SB04-6-8	Total/NA	Solid	3050B	
240-109180-9 MSD	SB04-6-8	Total/NA	Solid	3050B	

Prep Batch: 371016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-12	RINSE BLANK 1	Total/NA	Water	7470A	
240-109180-13	RINSE BLANK 2	Total/NA	Water	7470A	
240-109180-25	IMW-02-00001R	Total/NA	Water	7470A	
240-109180-26	9584-030719-0003	Total/NA	Water	7470A	
MB 240-371016/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-371016/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-109180-25 MS	IMW-02-00001R	Total/NA	Water	7470A	
240-109180-25 MSD	IMW-02-00001R	Total/NA	Water	7470A	

Prep Batch: 371025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-10	SB05-0-2	Total/NA	Solid	3050B	
240-109180-24	SB08-2-4	Total/NA	Solid	3050B	
MB 240-371025/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 240-371025/2-A	Lab Control Sample	Total/NA	Solid	3050B	
240-109180-10 MS	SB05-0-2	Total/NA	Solid	3050B	
240-109180-10 MSD	SB05-0-2	Total/NA	Solid	3050B	

Prep Batch: 371027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-10	SB05-0-2	Total/NA	Solid	7471A	
240-109180-24	SB08-2-4	Total/NA	Solid	7471A	
MB 240-371027/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 240-371027/2-A	Lab Control Sample	Total/NA	Solid	7471A	
240-109180-10 MS	SB05-0-2	Total/NA	Solid	7471A	
240-109180-10 MSD	SB05-0-2	Total/NA	Solid	7471A	

Analysis Batch: 371349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-12	RINSE BLANK 1	Total/NA	Water	7470A	371016
240-109180-13	RINSE BLANK 2	Total/NA	Water	7470A	371016
240-109180-25	IMW-02-00001R	Total/NA	Water	7470A	371016
240-109180-26	9584-030719-0003	Total/NA	Water	7470A	371016
MB 240-371016/1-A	Method Blank	Total/NA	Water	7470A	371016
LCS 240-371016/2-A	Lab Control Sample	Total/NA	Water	7470A	371016
240-109180-25 MS	IMW-02-00001R	Total/NA	Water	7470A	371016
240-109180-25 MSD	IMW-02-00001R	Total/NA	Water	7470A	371016

QC Association Summary

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Metals

Analysis Batch: 371350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-10	SB05-0-2	Total/NA	Solid	6010B	371025
240-109180-12	RINSE BLANK 1	Total Recoverable	Water	6010B	371008
240-109180-13	RINSE BLANK 2	Total Recoverable	Water	6010B	371008
240-109180-24	SB08-2-4	Total/NA	Solid	6010B	371025
240-109180-25	IMW-02-00001R	Total Recoverable	Water	6010B	371008
240-109180-26	9584-030719-0003	Total Recoverable	Water	6010B	371008
MB 240-371008/1-A	Method Blank	Total Recoverable	Water	6010B	371008
MB 240-371025/1-A	Method Blank	Total/NA	Solid	6010B	371025
LCS 240-371008/2-A	Lab Control Sample	Total Recoverable	Water	6010B	371008
LCS 240-371025/2-A	Lab Control Sample	Total/NA	Solid	6010B	371025
240-109180-10 MS	SB05-0-2	Total/NA	Solid	6010B	371025
240-109180-10 MSD	SB05-0-2	Total/NA	Solid	6010B	371025
240-109180-25 MS	IMW-02-00001R	Total Recoverable	Water	6010B	371008
240-109180-25 MSD	IMW-02-00001R	Total Recoverable	Water	6010B	371008

Analysis Batch: 371354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-1	SB01-0-2	Total/NA	Solid	6010B	371014
240-109180-2	SB01-5-7	Total/NA	Solid	6010B	371014
240-109180-3	SB02-0-2	Total/NA	Solid	6010B	371014
240-109180-4	SB02-6-8	Total/NA	Solid	6010B	371014
240-109180-5	SB03-0-2	Total/NA	Solid	6010B	371014
240-109180-6	SB03-6-8	Total/NA	Solid	6010B	371014
240-109180-7	9584-030519-0001	Total/NA	Solid	6010B	371014
240-109180-8	SB04-0-2	Total/NA	Solid	6010B	371014
240-109180-9	SB04-6-8	Total/NA	Solid	6010B	371014
240-109180-11	SB05-6-8	Total/NA	Solid	6010B	371014
240-109180-14	9584-030619-0002	Total/NA	Solid	6010B	371014
240-109180-15	SB06-0-2	Total/NA	Solid	6010B	371014
240-109180-16	SB06-2-4	Total/NA	Solid	6010B	371014
240-109180-17	SB07-0-2	Total/NA	Solid	6010B	371014
240-109180-18	SB07-4-6	Total/NA	Solid	6010B	371014
240-109180-19	SB09-0-2	Total/NA	Solid	6010B	371014
240-109180-20	SB09-3-5	Total/NA	Solid	6010B	371014
240-109180-21	SB10-0-2	Total/NA	Solid	6010B	371014
240-109180-22	SB10-4-6	Total/NA	Solid	6010B	371014
240-109180-23	SB08-0-2	Total/NA	Solid	6010B	371014
MB 240-371014/1-A	Method Blank	Total/NA	Solid	6010B	371014
LCS 240-371014/2-A	Lab Control Sample	Total/NA	Solid	6010B	371014
240-109180-9 MS	SB04-6-8	Total/NA	Solid	6010B	371014
240-109180-9 MSD	SB04-6-8	Total/NA	Solid	6010B	371014

Analysis Batch: 371515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-1	SB01-0-2	Total/NA	Solid	7471A	371011
240-109180-2	SB01-5-7	Total/NA	Solid	7471A	371011
240-109180-3	SB02-0-2	Total/NA	Solid	7471A	371011
240-109180-4	SB02-6-8	Total/NA	Solid	7471A	371011
240-109180-5	SB03-0-2	Total/NA	Solid	7471A	371011
240-109180-6	SB03-6-8	Total/NA	Solid	7471A	371011
240-109180-7	9584-030519-0001	Total/NA	Solid	7471A	371011

Metals (Continued)

Analysis Batch: 371515 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-8	SB04-0-2	Total/NA	Solid	7471A	371011
240-109180-9	SB04-6-8	Total/NA	Solid	7471A	371011
240-109180-10	SB05-0-2	Total/NA	Solid	7471A	371027
240-109180-11	SB05-6-8	Total/NA	Solid	7471A	371011
240-109180-14	9584-030619-0002	Total/NA	Solid	7471A	371011
240-109180-15	SB06-0-2	Total/NA	Solid	7471A	371011
240-109180-16	SB06-2-4	Total/NA	Solid	7471A	371011
240-109180-17	SB07-0-2	Total/NA	Solid	7471A	371011
240-109180-18	SB07-4-6	Total/NA	Solid	7471A	371011
240-109180-19	SB09-0-2	Total/NA	Solid	7471A	371011
240-109180-20	SB09-3-5	Total/NA	Solid	7471A	371011
240-109180-21	SB10-0-2	Total/NA	Solid	7471A	371011
240-109180-22	SB10-4-6	Total/NA	Solid	7471A	371011
240-109180-23	SB08-0-2	Total/NA	Solid	7471A	371011
240-109180-24	SB08-2-4	Total/NA	Solid	7471A	371027
MB 240-371011/1-A	Method Blank	Total/NA	Solid	7471A	371011
MB 240-371027/1-A	Method Blank	Total/NA	Solid	7471A	371027
LCS 240-371011/2-A	Lab Control Sample	Total/NA	Solid	7471A	371011
LCS 240-371027/2-A	Lab Control Sample	Total/NA	Solid	7471A	371027
240-109180-9 MS	SB04-6-8	Total/NA	Solid	7471A	371011
240-109180-9 MSD	SB04-6-8	Total/NA	Solid	7471A	371011
240-109180-10 MS	SB05-0-2	Total/NA	Solid	7471A	371027
240-109180-10 MSD	SB05-0-2	Total/NA	Solid	7471A	371027

Analysis Batch: 371519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-1	SB01-0-2	Total/NA	Solid	6010B	371014
240-109180-3	SB02-0-2	Total/NA	Solid	6010B	371014
240-109180-5	SB03-0-2	Total/NA	Solid	6010B	371014
240-109180-7	9584-030519-0001	Total/NA	Solid	6010B	371014
240-109180-8	SB04-0-2	Total/NA	Solid	6010B	371014
240-109180-8	SB04-0-2	Total/NA	Solid	6010B	371014
240-109180-8	SB04-0-2	Total/NA	Solid	6010B	371014
240-109180-15	SB06-0-2	Total/NA	Solid	6010B	371014
240-109180-15	SB06-0-2	Total/NA	Solid	6010B	371014
240-109180-17	SB07-0-2	Total/NA	Solid	6010B	371014
240-109180-17	SB07-0-2	Total/NA	Solid	6010B	371014
240-109180-19	SB09-0-2	Total/NA	Solid	6010B	371014
240-109180-19	SB09-0-2	Total/NA	Solid	6010B	371014
240-109180-21	SB10-0-2	Total/NA	Solid	6010B	371014
240-109180-23	SB08-0-2	Total/NA	Solid	6010B	371014
240-109180-23	SB08-0-2	Total/NA	Solid	6010B	371014

Analysis Batch: 371584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-10	SB05-0-2	Total/NA	Solid	6010B	371025
240-109180-24	SB08-2-4	Total/NA	Solid	6010B	371025

Analysis Batch: 371806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-24	SB08-2-4	Total/NA	Solid	6010B	371025

Metals (Continued)

Analysis Batch: 371806 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-10 MS	SB05-0-2	Total/NA	Solid	6010B	371025
240-109180-10 MSD	SB05-0-2	Total/NA	Solid	6010B	371025

General Chemistry

Prep Batch: 371023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-1	SB01-0-2	Total/NA	Solid	9030B	
240-109180-2	SB01-5-7	Total/NA	Solid	9030B	
240-109180-3	SB02-0-2	Total/NA	Solid	9030B	
240-109180-4	SB02-6-8	Total/NA	Solid	9030B	
240-109180-5	SB03-0-2	Total/NA	Solid	9030B	
240-109180-6	SB03-6-8	Total/NA	Solid	9030B	
240-109180-7	9584-030519-0001	Total/NA	Solid	9030B	
240-109180-8	SB04-0-2	Total/NA	Solid	9030B	
240-109180-9	SB04-6-8	Total/NA	Solid	9030B	
240-109180-10	SB05-0-2	Total/NA	Solid	9030B	
240-109180-11	SB05-6-8	Total/NA	Solid	9030B	
240-109180-14	9584-030619-0002	Total/NA	Solid	9030B	
240-109180-15	SB06-0-2	Total/NA	Solid	9030B	
240-109180-16	SB06-2-4	Total/NA	Solid	9030B	
MB 240-371023/1-A	Method Blank	Total/NA	Solid	9030B	
LCS 240-371023/2-A	Lab Control Sample	Total/NA	Solid	9030B	
240-109180-9 MS	SB04-6-8	Total/NA	Solid	9030B	
240-109180-9 MSD	SB04-6-8	Total/NA	Solid	9030B	
240-109180-10 MS	SB05-0-2	Total/NA	Solid	9030B	
240-109180-10 MSD	SB05-0-2	Total/NA	Solid	9030B	

Prep Batch: 371041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-12	RINSE BLANK 1	Total/NA	Water	9012A	
240-109180-13	RINSE BLANK 2	Total/NA	Water	9012A	
MB 240-371041/1-A	Method Blank	Total/NA	Water	9012A	
LCS 240-371041/2-A	Lab Control Sample	Total/NA	Water	9012A	

Analysis Batch: 371070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-1	SB01-0-2	Total/NA	Solid	9034	371023
240-109180-2	SB01-5-7	Total/NA	Solid	9034	371023
240-109180-3	SB02-0-2	Total/NA	Solid	9034	371023
240-109180-4	SB02-6-8	Total/NA	Solid	9034	371023
240-109180-5	SB03-0-2	Total/NA	Solid	9034	371023
240-109180-6	SB03-6-8	Total/NA	Solid	9034	371023
240-109180-7	9584-030519-0001	Total/NA	Solid	9034	371023
240-109180-8	SB04-0-2	Total/NA	Solid	9034	371023
240-109180-9	SB04-6-8	Total/NA	Solid	9034	371023
240-109180-10	SB05-0-2	Total/NA	Solid	9034	371023
240-109180-11	SB05-6-8	Total/NA	Solid	9034	371023
240-109180-14	9584-030619-0002	Total/NA	Solid	9034	371023
240-109180-15	SB06-0-2	Total/NA	Solid	9034	371023
240-109180-16	SB06-2-4	Total/NA	Solid	9034	371023

General Chemistry (Continued)

Analysis Batch: 371070 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-371023/1-A	Method Blank	Total/NA	Solid	9034	371023
LCS 240-371023/2-A	Lab Control Sample	Total/NA	Solid	9034	371023
240-109180-9 MS	SB04-6-8	Total/NA	Solid	9034	371023
240-109180-9 MSD	SB04-6-8	Total/NA	Solid	9034	371023
240-109180-10 MS	SB05-0-2	Total/NA	Solid	9034	371023
240-109180-10 MSD	SB05-0-2	Total/NA	Solid	9034	371023

Prep Batch: 371097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-1	SB01-0-2	Total/NA	Solid	9012A	
240-109180-2	SB01-5-7	Total/NA	Solid	9012A	
240-109180-3	SB02-0-2	Total/NA	Solid	9012A	
240-109180-4	SB02-6-8	Total/NA	Solid	9012A	
240-109180-5	SB03-0-2	Total/NA	Solid	9012A	
240-109180-6	SB03-6-8	Total/NA	Solid	9012A	
240-109180-7	9584-030519-0001	Total/NA	Solid	9012A	
240-109180-8	SB04-0-2	Total/NA	Solid	9012A	
240-109180-9	SB04-6-8	Total/NA	Solid	9012A	
240-109180-10	SB05-0-2	Total/NA	Solid	9012A	
MB 240-371097/1-A	Method Blank	Total/NA	Solid	9012A	
LCS 240-371097/2-A	Lab Control Sample	Total/NA	Solid	9012A	
240-109180-9 MS	SB04-6-8	Total/NA	Solid	9012A	
240-109180-9 MSD	SB04-6-8	Total/NA	Solid	9012A	
240-109180-10 MS	SB05-0-2	Total/NA	Solid	9012A	
240-109180-10 MSD	SB05-0-2	Total/NA	Solid	9012A	

Analysis Batch: 371126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-12	RINSE BLANK 1	Total/NA	Water	9012A	371041
240-109180-13	RINSE BLANK 2	Total/NA	Water	9012A	371041
MB 240-371041/1-A	Method Blank	Total/NA	Water	9012A	371041
LCS 240-371041/2-A	Lab Control Sample	Total/NA	Water	9012A	371041
MRL 240-371126/10	Lab Control Sample	Total/NA	Water	9012A	

Analysis Batch: 371137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-1	SB01-0-2	Total/NA	Solid	Moisture	
240-109180-2	SB01-5-7	Total/NA	Solid	Moisture	
240-109180-3	SB02-0-2	Total/NA	Solid	Moisture	
240-109180-4	SB02-6-8	Total/NA	Solid	Moisture	
240-109180-5	SB03-0-2	Total/NA	Solid	Moisture	
240-109180-6	SB03-6-8	Total/NA	Solid	Moisture	
240-109180-7	9584-030519-0001	Total/NA	Solid	Moisture	
240-109180-8	SB04-0-2	Total/NA	Solid	Moisture	
240-109180-9	SB04-6-8	Total/NA	Solid	Moisture	
240-109180-10	SB05-0-2	Total/NA	Solid	Moisture	
240-109180-11	SB05-6-8	Total/NA	Solid	Moisture	
240-109180-14	9584-030619-0002	Total/NA	Solid	Moisture	
240-109180-15	SB06-0-2	Total/NA	Solid	Moisture	
240-109180-16	SB06-2-4	Total/NA	Solid	Moisture	
240-109180-17	SB07-0-2	Total/NA	Solid	Moisture	

General Chemistry (Continued)

Analysis Batch: 371137 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-18	SB07-4-6	Total/NA	Solid	Moisture	
240-109180-19	SB09-0-2	Total/NA	Solid	Moisture	
240-109180-20	SB09-3-5	Total/NA	Solid	Moisture	
240-109180-21	SB10-0-2	Total/NA	Solid	Moisture	
240-109180-22	SB10-4-6	Total/NA	Solid	Moisture	
240-109180-23	SB08-0-2	Total/NA	Solid	Moisture	
240-109180-24	SB08-2-4	Total/NA	Solid	Moisture	
240-109180-8 DU	SB04-0-2	Total/NA	Solid	Moisture	
240-109180-9 DU	SB04-6-8	Total/NA	Solid	Moisture	
240-109180-10 DU	SB05-0-2	Total/NA	Solid	Moisture	

Analysis Batch: 371139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-1	SB01-0-2	Total/NA	Solid	9012A	371097
240-109180-2	SB01-5-7	Total/NA	Solid	9012A	371097
240-109180-3	SB02-0-2	Total/NA	Solid	9012A	371097
240-109180-4	SB02-6-8	Total/NA	Solid	9012A	371097
240-109180-5	SB03-0-2	Total/NA	Solid	9012A	371097
240-109180-6	SB03-6-8	Total/NA	Solid	9012A	371097
240-109180-7	9584-030519-0001	Total/NA	Solid	9012A	371097
240-109180-8	SB04-0-2	Total/NA	Solid	9012A	371097
240-109180-9	SB04-6-8	Total/NA	Solid	9012A	371097
240-109180-10	SB05-0-2	Total/NA	Solid	9012A	371097
MB 240-371097/1-A	Method Blank	Total/NA	Solid	9012A	371097
LCS 240-371097/2-A	Lab Control Sample	Total/NA	Solid	9012A	371097
240-109180-9 MS	SB04-6-8	Total/NA	Solid	9012A	371097
240-109180-9 MSD	SB04-6-8	Total/NA	Solid	9012A	371097
240-109180-10 MS	SB05-0-2	Total/NA	Solid	9012A	371097
240-109180-10 MSD	SB05-0-2	Total/NA	Solid	9012A	371097

Prep Batch: 371199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-12	RINSE BLANK 1	Total/NA	Water	9030B	
240-109180-13	RINSE BLANK 2	Total/NA	Water	9030B	
240-109180-17	SB07-0-2	Total/NA	Solid	9030B	
240-109180-18	SB07-4-6	Total/NA	Solid	9030B	
240-109180-19	SB09-0-2	Total/NA	Solid	9030B	
240-109180-20	SB09-3-5	Total/NA	Solid	9030B	
240-109180-21	SB10-0-2	Total/NA	Solid	9030B	
240-109180-22	SB10-4-6	Total/NA	Solid	9030B	
240-109180-23	SB08-0-2	Total/NA	Solid	9030B	
240-109180-24	SB08-2-4	Total/NA	Solid	9030B	
MB 240-371199/1-A	Method Blank	Total/NA	Solid	9030B	
MB 240-371199/20-A	Method Blank	Total/NA	Water	9030B	
LCS 240-371199/21-A	Lab Control Sample	Total/NA	Water	9030B	
LCS 240-371199/2-A	Lab Control Sample	Total/NA	Solid	9030B	
240-109180-12 MS	RINSE BLANK 1	Total/NA	Water	9030B	
240-109180-12 MSD	RINSE BLANK 1	Total/NA	Water	9030B	

QC Association Summary

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

General Chemistry

Analysis Batch: 371271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-12	RINSE BLANK 1	Total/NA	Water	9034	371199
240-109180-13	RINSE BLANK 2	Total/NA	Water	9034	371199
240-109180-17	SB07-0-2	Total/NA	Solid	9034	371199
240-109180-18	SB07-4-6	Total/NA	Solid	9034	371199
240-109180-19	SB09-0-2	Total/NA	Solid	9034	371199
240-109180-20	SB09-3-5	Total/NA	Solid	9034	371199
240-109180-21	SB10-0-2	Total/NA	Solid	9034	371199
240-109180-22	SB10-4-6	Total/NA	Solid	9034	371199
240-109180-23	SB08-0-2	Total/NA	Solid	9034	371199
240-109180-24	SB08-2-4	Total/NA	Solid	9034	371199
MB 240-371199/1-A	Method Blank	Total/NA	Solid	9034	371199
MB 240-371199/20-A	Method Blank	Total/NA	Water	9034	371199
LCS 240-371199/21-A	Lab Control Sample	Total/NA	Water	9034	371199
LCS 240-371199/2-A	Lab Control Sample	Total/NA	Solid	9034	371199
240-109180-12 MS	RINSE BLANK 1	Total/NA	Water	9034	371199
240-109180-12 MSD	RINSE BLANK 1	Total/NA	Water	9034	371199

Prep Batch: 371273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-11	SB05-6-8	Total/NA	Solid	9012A	
240-109180-14	9584-030619-0002	Total/NA	Solid	9012A	
240-109180-15	SB06-0-2	Total/NA	Solid	9012A	
240-109180-16	SB06-2-4	Total/NA	Solid	9012A	
240-109180-17	SB07-0-2	Total/NA	Solid	9012A	
240-109180-18	SB07-4-6	Total/NA	Solid	9012A	
240-109180-19	SB09-0-2	Total/NA	Solid	9012A	
240-109180-20	SB09-3-5	Total/NA	Solid	9012A	
240-109180-21	SB10-0-2	Total/NA	Solid	9012A	
240-109180-22	SB10-4-6	Total/NA	Solid	9012A	
240-109180-23	SB08-0-2	Total/NA	Solid	9012A	
240-109180-24	SB08-2-4	Total/NA	Solid	9012A	
MB 240-371273/1-A	Method Blank	Total/NA	Solid	9012A	
LCS 240-371273/2-A	Lab Control Sample	Total/NA	Solid	9012A	

Analysis Batch: 371296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-109180-11	SB05-6-8	Total/NA	Solid	9012A	371273
240-109180-14	9584-030619-0002	Total/NA	Solid	9012A	371273
240-109180-15	SB06-0-2	Total/NA	Solid	9012A	371273
240-109180-16	SB06-2-4	Total/NA	Solid	9012A	371273
240-109180-17	SB07-0-2	Total/NA	Solid	9012A	371273
240-109180-18	SB07-4-6	Total/NA	Solid	9012A	371273
240-109180-19	SB09-0-2	Total/NA	Solid	9012A	371273
240-109180-20	SB09-3-5	Total/NA	Solid	9012A	371273
240-109180-21	SB10-0-2	Total/NA	Solid	9012A	371273
240-109180-22	SB10-4-6	Total/NA	Solid	9012A	371273
240-109180-23	SB08-0-2	Total/NA	Solid	9012A	371273
240-109180-24	SB08-2-4	Total/NA	Solid	9012A	371273
MB 240-371273/1-A	Method Blank	Total/NA	Solid	9012A	371273
LCS 240-371273/2-A	Lab Control Sample	Total/NA	Solid	9012A	371273

Lab Chronicle

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB01-0-2
Date Collected: 03/05/19 08:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371137	03/11/19 17:03	JWW	TAL CAN

Client Sample ID: SB01-0-2
Date Collected: 03/05/19 08:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-1
Matrix: Solid
Percent Solids: 91.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371418	03/13/19 11:20	LAM	TAL CAN
Total/NA	Analysis	8260C		1	371479	03/14/19 12:10	TJL2	TAL CAN
Total/NA	Prep	3540C			370982	03/11/19 07:19	ZMF	TAL CAN
Total/NA	Analysis	8270C		5	371953	03/18/19 20:23	JMG	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371354	03/12/19 16:54	KLC	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		5	371519	03/13/19 12:21	RKT	TAL CAN
Total/NA	Prep	7471A			371011	03/11/19 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	371515	03/13/19 10:46	AJC	TAL CAN
Total/NA	Prep	9012A			371097	03/11/19 13:18	MAC	TAL CAN
Total/NA	Analysis	9012A		1	371139	03/11/19 15:39	MAC	TAL CAN
Total/NA	Prep	9030B			371023	03/11/19 09:23	ACR	TAL CAN
Total/NA	Analysis	9034		1	371070	03/11/19 11:35	ACR	TAL CAN

Client Sample ID: SB01-5-7
Date Collected: 03/05/19 09:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371137	03/11/19 17:03	JWW	TAL CAN

Client Sample ID: SB01-5-7
Date Collected: 03/05/19 09:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-2
Matrix: Solid
Percent Solids: 92.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371418	03/13/19 11:20	LAM	TAL CAN
Total/NA	Analysis	8260C		1	371479	03/14/19 12:31	TJL2	TAL CAN
Total/NA	Prep	3540C			370982	03/11/19 07:19	ZMF	TAL CAN
Total/NA	Analysis	8270C		1	371953	03/18/19 20:47	JMG	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371354	03/12/19 16:58	KLC	TAL CAN
Total/NA	Prep	7471A			371011	03/11/19 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	371515	03/13/19 10:53	AJC	TAL CAN
Total/NA	Prep	9012A			371097	03/11/19 13:18	MAC	TAL CAN
Total/NA	Analysis	9012A		1	371139	03/11/19 15:45	MAC	TAL CAN

Lab Chronicle

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB01-5-7 — Lab Sample ID: 240-109180-2

Date Collected: 03/05/19 09:00 — **Matrix: Solid**
Date Received: 03/09/19 09:50 — **Percent Solids: 92.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9030B			371023	03/11/19 09:23	ACR	TAL CAN
Total/NA	Analysis	9034		1	371070	03/11/19 11:35	ACR	TAL CAN

Client Sample ID: SB02-0-2 — Lab Sample ID: 240-109180-3

Date Collected: 03/05/19 09:30 — **Matrix: Solid**
Date Received: 03/09/19 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371137	03/11/19 17:03	JWW	TAL CAN

Client Sample ID: SB02-0-2 — Lab Sample ID: 240-109180-3

Date Collected: 03/05/19 09:30 — **Matrix: Solid**
Date Received: 03/09/19 09:50 — **Percent Solids: 93.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371418	03/13/19 11:20	LAM	TAL CAN
Total/NA	Analysis	8260C		1	371479	03/14/19 12:52	TJL2	TAL CAN
Total/NA	Prep	3540C			370982	03/11/19 07:19	ZMF	TAL CAN
Total/NA	Analysis	8270C		1	371953	03/18/19 17:59	JMG	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371354	03/12/19 17:02	KLC	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		5	371519	03/13/19 12:25	RKT	TAL CAN
Total/NA	Prep	7471A			371011	03/11/19 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	371515	03/13/19 10:55	AJC	TAL CAN
Total/NA	Prep	9012A			371097	03/11/19 13:18	MAC	TAL CAN
Total/NA	Analysis	9012A		1	371139	03/11/19 15:46	MAC	TAL CAN
Total/NA	Prep	9030B			371023	03/11/19 09:23	ACR	TAL CAN
Total/NA	Analysis	9034		1	371070	03/11/19 11:35	ACR	TAL CAN

Client Sample ID: SB02-6-8 — Lab Sample ID: 240-109180-4

Date Collected: 03/05/19 10:00 — **Matrix: Solid**
Date Received: 03/09/19 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371137	03/11/19 17:03	JWW	TAL CAN

Client Sample ID: SB02-6-8 — Lab Sample ID: 240-109180-4

Date Collected: 03/05/19 10:00 — **Matrix: Solid**
Date Received: 03/09/19 09:50 — **Percent Solids: 86.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371418	03/13/19 11:20	LAM	TAL CAN
Total/NA	Analysis	8260C		1	371479	03/14/19 13:14	TJL2	TAL CAN
Total/NA	Prep	3540C			370982	03/11/19 07:19	ZMF	TAL CAN
Total/NA	Analysis	8270C		1	371953	03/18/19 17:35	JMG	TAL CAN

Lab Chronicle

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB02-6-8 — Lab Sample ID: 240-109180-4

Date Collected: 03/05/19 10:00
Date Received: 03/09/19 09:50
Matrix: Solid
Percent Solids: 86.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371354	03/12/19 17:07	KLC	TAL CAN
Total/NA	Prep	7471A			371011	03/11/19 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	371515	03/13/19 10:57	AJC	TAL CAN
Total/NA	Prep	9012A			371097	03/11/19 13:18	MAC	TAL CAN
Total/NA	Analysis	9012A		1	371139	03/11/19 15:48	MAC	TAL CAN
Total/NA	Prep	9030B			371023	03/11/19 09:23	ACR	TAL CAN
Total/NA	Analysis	9034		1	371070	03/11/19 11:35	ACR	TAL CAN

Client Sample ID: SB03-0-2 — Lab Sample ID: 240-109180-5

Date Collected: 03/05/19 10:45
Date Received: 03/09/19 09:50
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371137	03/11/19 16:58	JWW	TAL CAN

Client Sample ID: SB03-0-2 — Lab Sample ID: 240-109180-5

Date Collected: 03/05/19 10:45
Date Received: 03/09/19 09:50
Matrix: Solid
Percent Solids: 90.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371418	03/13/19 11:20	LAM	TAL CAN
Total/NA	Analysis	8260C		1	371479	03/14/19 13:35	TJL2	TAL CAN
Total/NA	Prep	3540C			370982	03/11/19 07:19	ZMF	TAL CAN
Total/NA	Analysis	8270C		1	371953	03/18/19 21:11	JMG	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371354	03/12/19 17:11	KLC	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		5	371519	03/13/19 12:30	RKT	TAL CAN
Total/NA	Prep	7471A			371011	03/11/19 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	371515	03/13/19 10:59	AJC	TAL CAN
Total/NA	Prep	9012A			371097	03/11/19 13:18	MAC	TAL CAN
Total/NA	Analysis	9012A		1	371139	03/11/19 15:50	MAC	TAL CAN
Total/NA	Prep	9030B			371023	03/11/19 09:23	ACR	TAL CAN
Total/NA	Analysis	9034		1	371070	03/11/19 11:35	ACR	TAL CAN

Client Sample ID: SB03-6-8 — Lab Sample ID: 240-109180-6

Date Collected: 03/05/19 11:10
Date Received: 03/09/19 09:50
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371137	03/11/19 16:58	JWW	TAL CAN

Lab Chronicle

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB03-6-8

Lab Sample ID: 240-109180-6
Date Collected: 03/05/19 11:10
Matrix: Solid
Date Received: 03/09/19 09:50
Percent Solids: 86.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371418	03/13/19 11:20	LAM	TAL CAN
Total/NA	Analysis	8260C		1	371479	03/14/19 13:57	TJL2	TAL CAN
Total/NA	Prep	3540C			370982	03/11/19 07:19	ZMF	TAL CAN
Total/NA	Analysis	8270C		1	371953	03/18/19 15:12	JMG	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371354	03/12/19 17:15	KLC	TAL CAN
Total/NA	Prep	7471A			371011	03/11/19 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	371515	03/13/19 11:01	AJC	TAL CAN
Total/NA	Prep	9012A			371097	03/11/19 13:18	MAC	TAL CAN
Total/NA	Analysis	9012A		1	371139	03/11/19 15:52	MAC	TAL CAN
Total/NA	Prep	9030B			371023	03/11/19 09:23	ACR	TAL CAN
Total/NA	Analysis	9034		1	371070	03/11/19 11:35	ACR	TAL CAN

Client Sample ID: 9584-030519-0001

Lab Sample ID: 240-109180-7
Date Collected: 03/05/19 00:01
Matrix: Solid
Date Received: 03/09/19 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371137	03/11/19 16:58	JWW	TAL CAN

Client Sample ID: 9584-030519-0001

Lab Sample ID: 240-109180-7
Date Collected: 03/05/19 00:01
Matrix: Solid
Date Received: 03/09/19 09:50
Percent Solids: 93.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371418	03/13/19 11:20	LAM	TAL CAN
Total/NA	Analysis	8260C		1	371479	03/14/19 14:18	TJL2	TAL CAN
Total/NA	Prep	3540C			370982	03/11/19 07:19	ZMF	TAL CAN
Total/NA	Analysis	8270C		5	371550	03/14/19 18:48	JMG	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371354	03/12/19 17:20	KLC	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		20	371519	03/13/19 12:39	RKT	TAL CAN
Total/NA	Prep	7471A			371011	03/11/19 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	371515	03/13/19 11:03	AJC	TAL CAN
Total/NA	Prep	9012A			371097	03/11/19 13:18	MAC	TAL CAN
Total/NA	Analysis	9012A		1	371139	03/11/19 15:53	MAC	TAL CAN
Total/NA	Prep	9030B			371023	03/11/19 09:23	ACR	TAL CAN
Total/NA	Analysis	9034		1	371070	03/11/19 11:35	ACR	TAL CAN

Lab Chronicle

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB04-0-2
Date Collected: 03/05/19 14:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371137	03/11/19 16:58	JWW	TAL CAN

Client Sample ID: SB04-0-2
Date Collected: 03/05/19 14:30
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-8
Matrix: Solid
Percent Solids: 91.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371452	03/13/19 13:53	LAM	TAL CAN
Total/NA	Analysis	8260C		1	371671	03/15/19 10:41	TJL2	TAL CAN
Total/NA	Prep	3540C			371183	03/12/19 07:38	ZMF	TAL CAN
Total/NA	Analysis	8270C		1	371953	03/18/19 17:11	JMG	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371354	03/12/19 17:33	KLC	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371519	03/13/19 12:43	RKT	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		2	371519	03/13/19 12:48	RKT	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		20	371519	03/13/19 12:52	RKT	TAL CAN
Total/NA	Prep	7471A			371011	03/11/19 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	371515	03/13/19 11:05	AJC	TAL CAN
Total/NA	Prep	9012A			371097	03/11/19 13:18	MAC	TAL CAN
Total/NA	Analysis	9012A		1	371139	03/11/19 15:55	MAC	TAL CAN
Total/NA	Prep	9030B			371023	03/11/19 09:23	ACR	TAL CAN
Total/NA	Analysis	9034		1	371070	03/11/19 11:35	ACR	TAL CAN

Client Sample ID: SB04-6-8
Date Collected: 03/05/19 15:10
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371137	03/11/19 16:58	JWW	TAL CAN

Client Sample ID: SB04-6-8
Date Collected: 03/05/19 15:10
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-9
Matrix: Solid
Percent Solids: 92.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371418	03/13/19 11:20	LAM	TAL CAN
Total/NA	Analysis	8260C		1	371479	03/14/19 14:40	TJL2	TAL CAN
Total/NA	Prep	3540C			371183	03/12/19 07:38	ZMF	TAL CAN
Total/NA	Analysis	8270C		1	371953	03/18/19 16:00	JMG	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371354	03/12/19 16:29	KLC	TAL CAN

Lab Chronicle

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB04-6-8 — Lab Sample ID: 240-109180-9

Date Collected: 03/05/19 15:10 — **Matrix: Solid**
Date Received: 03/09/19 09:50 — **Percent Solids: 92.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			371011	03/11/19 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	371515	03/13/19 10:40	AJC	TAL CAN
Total/NA	Prep	9012A			371097	03/11/19 13:18	MAC	TAL CAN
Total/NA	Analysis	9012A		1	371139	03/11/19 15:57	MAC	TAL CAN
Total/NA	Prep	9030B			371023	03/11/19 09:23	ACR	TAL CAN
Total/NA	Analysis	9034		1	371070	03/11/19 11:35	ACR	TAL CAN

Client Sample ID: SB05-0-2 — Lab Sample ID: 240-109180-10

Date Collected: 03/06/19 08:00 — **Matrix: Solid**
Date Received: 03/09/19 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371137	03/11/19 16:53	JWW	TAL CAN

Client Sample ID: SB05-0-2 — Lab Sample ID: 240-109180-10

Date Collected: 03/06/19 08:00 — **Matrix: Solid**
Date Received: 03/09/19 09:50 — **Percent Solids: 93.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371452	03/13/19 13:53	LAM	TAL CAN
Total/NA	Analysis	8260C		1	371803	03/15/19 17:45	SAM	TAL CAN
Total/NA	Prep	3540C			371874	03/16/19 10:43	EMB	TAL CAN
Total/NA	Analysis	8270C		2	372162	03/19/19 17:07	JMG	TAL CAN
Total/NA	Prep	3050B			371025	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371350	03/12/19 19:37	WKD	TAL CAN
Total/NA	Prep	3050B			371025	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		5	371584	03/14/19 17:43	WKD	TAL CAN
Total/NA	Prep	7471A			371027	03/11/19 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	371515	03/13/19 11:43	AJC	TAL CAN
Total/NA	Prep	9012A			371097	03/11/19 13:18	MAC	TAL CAN
Total/NA	Analysis	9012A		1	371139	03/11/19 16:06	MAC	TAL CAN
Total/NA	Prep	9030B			371023	03/11/19 09:23	ACR	TAL CAN
Total/NA	Analysis	9034		1	371070	03/11/19 11:35	ACR	TAL CAN

Client Sample ID: SB05-6-8 — Lab Sample ID: 240-109180-11

Date Collected: 03/06/19 08:30 — **Matrix: Solid**
Date Received: 03/09/19 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371137	03/11/19 16:58	JWW	TAL CAN

Lab Chronicle

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB05-6-8

Lab Sample ID: 240-109180-11

Date Collected: 03/06/19 08:30
Date Received: 03/09/19 09:50

Matrix: Solid
Percent Solids: 93.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371452	03/13/19 13:53	LAM	TAL CAN
Total/NA	Analysis	8260C		1	371671	03/15/19 11:02	TJL2	TAL CAN
Total/NA	Prep	3540C			371871	03/16/19 10:19	EMB	TAL CAN
Total/NA	Analysis	8270C		1	372166	03/19/19 15:00	JMG	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371354	03/12/19 17:37	KLC	TAL CAN
Total/NA	Prep	7471A			371011	03/11/19 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	371515	03/13/19 11:07	AJC	TAL CAN
Total/NA	Prep	9012A			371273	03/12/19 13:31	MMM	TAL CAN
Total/NA	Analysis	9012A		1	371296	03/12/19 14:26	MMM	TAL CAN
Total/NA	Prep	9030B			371023	03/11/19 09:23	ACR	TAL CAN
Total/NA	Analysis	9034		1	371070	03/11/19 11:35	ACR	TAL CAN

Client Sample ID: RINSE BLANK 1

Lab Sample ID: 240-109180-12

Date Collected: 03/06/19 10:45
Date Received: 03/09/19 09:50

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	371647	03/14/19 19:43	TJL1	TAL CAN
Total/NA	Prep	3510C			371076	03/11/19 11:50	ACS	TAL CAN
Total/NA	Analysis	8270C		1	371953	03/18/19 12:00	JMG	TAL CAN
Total Recoverable	Prep	3005A			371008	03/11/19 14:00	SLD	TAL CAN
Total Recoverable	Analysis	6010B		1	371350	03/12/19 18:17	WKD	TAL CAN
Total/NA	Prep	7470A			371016	03/11/19 12:00	SLD	TAL CAN
Total/NA	Analysis	7470A		1	371349	03/12/19 14:30	AJC	TAL CAN
Total/NA	Prep	9012A			371041	03/11/19 10:29	MAC	TAL CAN
Total/NA	Analysis	9012A		1	371126	03/11/19 11:54	MAC	TAL CAN
Total/NA	Prep	9030B			371199	03/12/19 12:18	BLW	TAL CAN
Total/NA	Analysis	9034		1	371271	03/12/19 13:24	BLW	TAL CAN

Client Sample ID: RINSE BLANK 2

Lab Sample ID: 240-109180-13

Date Collected: 03/06/19 14:45
Date Received: 03/09/19 09:50

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	371647	03/14/19 20:05	TJL1	TAL CAN
Total/NA	Prep	3510C			371076	03/11/19 11:50	ACS	TAL CAN
Total/NA	Analysis	8270C		1	371953	03/18/19 12:24	JMG	TAL CAN
Total Recoverable	Prep	3005A			371008	03/11/19 14:00	SLD	TAL CAN
Total Recoverable	Analysis	6010B		1	371350	03/12/19 18:22	WKD	TAL CAN
Total/NA	Prep	7470A			371016	03/11/19 12:00	SLD	TAL CAN
Total/NA	Analysis	7470A		1	371349	03/12/19 14:32	AJC	TAL CAN
Total/NA	Prep	9012A			371041	03/11/19 10:29	MAC	TAL CAN
Total/NA	Analysis	9012A		1	371126	03/11/19 11:56	MAC	TAL CAN

Lab Chronicle

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: RINSE BLANK 2 — Lab Sample ID: 240-109180-13

Date Collected: 03/06/19 14:45 — **Matrix: Water**
Date Received: 03/09/19 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9030B			371199	03/12/19 12:18	BLW	TAL CAN
Total/NA	Analysis	9034		1	371271	03/12/19 13:24	BLW	TAL CAN

Client Sample ID: 9584-030619-0002 — Lab Sample ID: 240-109180-14

Date Collected: 03/06/19 00:02 — **Matrix: Solid**
Date Received: 03/09/19 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371137	03/11/19 16:58	JWW	TAL CAN

Client Sample ID: 9584-030619-0002 — Lab Sample ID: 240-109180-14

Date Collected: 03/06/19 00:02 — **Matrix: Solid**
Date Received: 03/09/19 09:50 — **Percent Solids: 91.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371452	03/13/19 13:53	LAM	TAL CAN
Total/NA	Analysis	8260C		1	371671	03/15/19 11:23	TJL2	TAL CAN
Total/NA	Prep	3540C			371183	03/12/19 07:38	ZMF	TAL CAN
Total/NA	Analysis	8270C		1	371953	03/18/19 15:36	JMG	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371354	03/12/19 18:03	KLC	TAL CAN
Total/NA	Prep	7471A			371011	03/11/19 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	371515	03/13/19 11:24	AJC	TAL CAN
Total/NA	Prep	9012A			371273	03/12/19 13:31	MMM	TAL CAN
Total/NA	Analysis	9012A		1	371296	03/12/19 14:28	MMM	TAL CAN
Total/NA	Prep	9030B			371023	03/11/19 09:23	ACR	TAL CAN
Total/NA	Analysis	9034		1	371070	03/11/19 11:35	ACR	TAL CAN

Client Sample ID: SB06-0-2 — Lab Sample ID: 240-109180-15

Date Collected: 03/06/19 09:15 — **Matrix: Solid**
Date Received: 03/09/19 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371137	03/11/19 16:58	JWW	TAL CAN

Client Sample ID: SB06-0-2 — Lab Sample ID: 240-109180-15

Date Collected: 03/06/19 09:15 — **Matrix: Solid**
Date Received: 03/09/19 09:50 — **Percent Solids: 91.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371452	03/13/19 13:53	LAM	TAL CAN
Total/NA	Analysis	8260C		1	371671	03/15/19 11:45	TJL2	TAL CAN
Total/NA	Prep	3540C			371183	03/12/19 07:38	ZMF	TAL CAN
Total/NA	Analysis	8270C		4	371953	03/18/19 18:47	JMG	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371354	03/12/19 17:41	KLC	TAL CAN

Lab Chronicle

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB06-0-2 — Lab Sample ID: 240-109180-15

Date Collected: 03/06/19 09:15 — **Matrix: Solid**
Date Received: 03/09/19 09:50 — **Percent Solids: 91.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		2	371519	03/13/19 12:57	RKT	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		20	371519	03/13/19 13:10	RKT	TAL CAN
Total/NA	Prep	7471A			371011	03/11/19 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	371515	03/13/19 11:09	AJC	TAL CAN
Total/NA	Prep	9012A			371273	03/12/19 13:31	MMM	TAL CAN
Total/NA	Analysis	9012A		1	371296	03/12/19 14:29	MMM	TAL CAN
Total/NA	Prep	9030B			371023	03/11/19 09:23	ACR	TAL CAN
Total/NA	Analysis	9034		1	371070	03/11/19 11:35	ACR	TAL CAN

Client Sample ID: SB06-2-4 — Lab Sample ID: 240-109180-16

Date Collected: 03/06/19 09:45 — **Matrix: Solid**
Date Received: 03/09/19 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371137	03/11/19 16:53	JWW	TAL CAN

Client Sample ID: SB06-2-4 — Lab Sample ID: 240-109180-16

Date Collected: 03/06/19 09:45 — **Matrix: Solid**
Date Received: 03/09/19 09:50 — **Percent Solids: 84.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371452	03/13/19 13:53	LAM	TAL CAN
Total/NA	Analysis	8260C		1	371671	03/15/19 12:06	TJL2	TAL CAN
Total/NA	Prep	3540C			371183	03/12/19 07:38	ZMF	TAL CAN
Total/NA	Analysis	8270C		1	371550	03/14/19 17:36	JMG	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371354	03/12/19 17:46	KLC	TAL CAN
Total/NA	Prep	7471A			371011	03/11/19 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	371515	03/13/19 11:11	AJC	TAL CAN
Total/NA	Prep	9012A			371273	03/12/19 13:31	MMM	TAL CAN
Total/NA	Analysis	9012A		1	371296	03/12/19 14:31	MMM	TAL CAN
Total/NA	Prep	9030B			371023	03/11/19 09:23	ACR	TAL CAN
Total/NA	Analysis	9034		1	371070	03/11/19 11:35	ACR	TAL CAN

Client Sample ID: SB07-0-2 — Lab Sample ID: 240-109180-17

Date Collected: 03/06/19 11:25 — **Matrix: Solid**
Date Received: 03/09/19 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371137	03/11/19 16:53	JWW	TAL CAN

Lab Chronicle

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB07-0-2

Lab Sample ID: 240-109180-17
Date Collected: 03/06/19 11:25
Matrix: Solid
Date Received: 03/09/19 09:50
Percent Solids: 93.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371452	03/13/19 13:53	LAM	TAL CAN
Total/NA	Analysis	8260C		1	371671	03/15/19 12:28	TJL2	TAL CAN
Total/NA	Prep	3540C			371871	03/16/19 10:19	EMB	TAL CAN
Total/NA	Analysis	8270C		2	372166	03/19/19 17:02	JMG	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371354	03/12/19 17:50	KLC	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		2	371519	03/13/19 13:14	RKT	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		5	371519	03/13/19 13:18	RKT	TAL CAN
Total/NA	Prep	7471A			371011	03/11/19 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	371515	03/13/19 11:18	AJC	TAL CAN
Total/NA	Prep	9012A			371273	03/12/19 13:31	MMM	TAL CAN
Total/NA	Analysis	9012A		1	371296	03/12/19 14:33	MMM	TAL CAN
Total/NA	Prep	9030B			371199	03/12/19 08:22	BLW	TAL CAN
Total/NA	Analysis	9034		1	371271	03/12/19 13:24	BLW	TAL CAN

Client Sample ID: SB07-4-6

Lab Sample ID: 240-109180-18
Date Collected: 03/06/19 11:55
Matrix: Solid
Date Received: 03/09/19 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371137	03/11/19 16:53	JWW	TAL CAN

Client Sample ID: SB07-4-6

Lab Sample ID: 240-109180-18
Date Collected: 03/06/19 11:55
Matrix: Solid
Date Received: 03/09/19 09:50
Percent Solids: 83.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371452	03/13/19 13:53	LAM	TAL CAN
Total/NA	Analysis	8260C		1	371671	03/15/19 12:49	TJL2	TAL CAN
Total/NA	Prep	3540C			371871	03/16/19 10:19	EMB	TAL CAN
Total/NA	Analysis	8270C		1	372166	03/19/19 14:36	JMG	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371354	03/12/19 17:55	KLC	TAL CAN
Total/NA	Prep	7471A			371011	03/11/19 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	371515	03/13/19 11:20	AJC	TAL CAN
Total/NA	Prep	9012A			371273	03/12/19 13:31	MMM	TAL CAN
Total/NA	Analysis	9012A		1	371296	03/12/19 14:38	MMM	TAL CAN
Total/NA	Prep	9030B			371199	03/12/19 08:22	BLW	TAL CAN
Total/NA	Analysis	9034		1	371271	03/12/19 13:24	BLW	TAL CAN

Lab Chronicle

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB09-0-2
Date Collected: 03/06/19 12:40
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-19
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371137	03/11/19 16:53	JWW	TAL CAN

Client Sample ID: SB09-0-2
Date Collected: 03/06/19 12:40
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-19
Matrix: Solid
Percent Solids: 93.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371452	03/13/19 13:53	LAM	TAL CAN
Total/NA	Analysis	8260C		1	371671	03/15/19 13:10	TJL2	TAL CAN
Total/NA	Prep	3540C			371871	03/16/19 10:19	EMB	TAL CAN
Total/NA	Analysis	8270C		2	372166	03/19/19 16:37	JMG	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371354	03/12/19 17:59	KLC	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		2	371519	03/13/19 13:22	RKT	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371519	03/13/19 16:57	RKT	TAL CAN
Total/NA	Prep	7471A			371011	03/11/19 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	371515	03/13/19 11:22	AJC	TAL CAN
Total/NA	Prep	9012A			371273	03/12/19 13:31	MMM	TAL CAN
Total/NA	Analysis	9012A		1	371296	03/12/19 14:40	MMM	TAL CAN
Total/NA	Prep	9030B			371199	03/12/19 08:22	BLW	TAL CAN
Total/NA	Analysis	9034		1	371271	03/12/19 13:24	BLW	TAL CAN

Client Sample ID: SB09-3-5
Date Collected: 03/06/19 13:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-20
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371137	03/11/19 16:53	JWW	TAL CAN

Client Sample ID: SB09-3-5
Date Collected: 03/06/19 13:00
Date Received: 03/09/19 09:50

Lab Sample ID: 240-109180-20
Matrix: Solid
Percent Solids: 86.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371452	03/13/19 13:53	LAM	TAL CAN
Total/NA	Analysis	8260C		1	371671	03/15/19 13:32	TJL2	TAL CAN
Total/NA	Prep	3540C			371871	03/16/19 10:19	EMB	TAL CAN
Total/NA	Analysis	8270C		1	372166	03/19/19 16:13	JMG	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371354	03/12/19 18:08	KLC	TAL CAN
Total/NA	Prep	7471A			371011	03/11/19 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	371515	03/13/19 11:26	AJC	TAL CAN

Lab Chronicle

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB09-3-5 — Lab Sample ID: 240-109180-20

Date Collected: 03/06/19 13:00
Date Received: 03/09/19 09:50
Matrix: Solid
Percent Solids: 86.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012A			371273	03/12/19 13:31	MMM	TAL CAN
Total/NA	Analysis	9012A		1	371296	03/12/19 14:42	MMM	TAL CAN
Total/NA	Prep	9030B			371199	03/12/19 08:22	BLW	TAL CAN
Total/NA	Analysis	9034		1	371271	03/12/19 13:24	BLW	TAL CAN

Client Sample ID: SB10-0-2 — Lab Sample ID: 240-109180-21

Date Collected: 03/06/19 13:35
Date Received: 03/09/19 09:50
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371137	03/11/19 16:53	JWW	TAL CAN

Client Sample ID: SB10-0-2 — Lab Sample ID: 240-109180-21

Date Collected: 03/06/19 13:35
Date Received: 03/09/19 09:50
Matrix: Solid
Percent Solids: 91.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371452	03/13/19 13:53	LAM	TAL CAN
Total/NA	Analysis	8260C		1	371671	03/15/19 13:54	TJL2	TAL CAN
Total/NA	Prep	3540C			371871	03/16/19 10:19	EMB	TAL CAN
Total/NA	Analysis	8270C		2.5	372166	03/19/19 17:26	JMG	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371354	03/12/19 18:12	KLC	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		2	371519	03/13/19 13:27	RKT	TAL CAN
Total/NA	Prep	7471A			371011	03/11/19 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	371515	03/13/19 11:28	AJC	TAL CAN
Total/NA	Prep	9012A			371273	03/12/19 13:31	MMM	TAL CAN
Total/NA	Analysis	9012A		1	371296	03/12/19 14:44	MMM	TAL CAN
Total/NA	Prep	9030B			371199	03/12/19 08:22	BLW	TAL CAN
Total/NA	Analysis	9034		1	371271	03/12/19 13:24	BLW	TAL CAN

Client Sample ID: SB10-4-6 — Lab Sample ID: 240-109180-22

Date Collected: 03/06/19 14:00
Date Received: 03/09/19 09:50
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371137	03/11/19 16:53	JWW	TAL CAN

Client Sample ID: SB10-4-6 — Lab Sample ID: 240-109180-22

Date Collected: 03/06/19 14:00
Date Received: 03/09/19 09:50
Matrix: Solid
Percent Solids: 84.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371452	03/13/19 14:57	LAM	TAL CAN
Total/NA	Analysis	8260C		1	371671	03/15/19 14:15	TJL2	TAL CAN

Lab Chronicle

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB10-4-6

Lab Sample ID: 240-109180-22
Date Collected: 03/06/19 14:00
Matrix: Solid
Date Received: 03/09/19 09:50
Percent Solids: 84.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			371871	03/16/19 10:19	EMB	TAL CAN
Total/NA	Analysis	8270C		1	372166	03/19/19 15:49	JMG	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371354	03/12/19 18:25	KLC	TAL CAN
Total/NA	Prep	7471A			371011	03/11/19 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	371515	03/13/19 11:30	AJC	TAL CAN
Total/NA	Prep	9012A			371273	03/12/19 13:31	MMM	TAL CAN
Total/NA	Analysis	9012A		1	371296	03/12/19 14:45	MMM	TAL CAN
Total/NA	Prep	9030B			371199	03/12/19 08:22	BLW	TAL CAN
Total/NA	Analysis	9034		1	371271	03/12/19 13:24	BLW	TAL CAN

Client Sample ID: SB08-0-2

Lab Sample ID: 240-109180-23
Date Collected: 03/07/19 08:00
Matrix: Solid
Date Received: 03/09/19 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371137	03/11/19 16:53	JWW	TAL CAN

Client Sample ID: SB08-0-2

Lab Sample ID: 240-109180-23
Date Collected: 03/07/19 08:00
Matrix: Solid
Date Received: 03/09/19 09:50
Percent Solids: 89.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371452	03/13/19 13:53	LAM	TAL CAN
Total/NA	Analysis	8260C		1	371803	03/15/19 18:52	SAM	TAL CAN
Total/NA	Prep	3540C			371871	03/16/19 10:19	EMB	TAL CAN
Total/NA	Analysis	8270C		2.5	372166	03/19/19 17:50	JMG	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371354	03/12/19 18:29	KLC	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		5	371519	03/13/19 13:31	RKT	TAL CAN
Total/NA	Prep	3050B			371014	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		20	371519	03/13/19 13:35	RKT	TAL CAN
Total/NA	Prep	7471A			371011	03/11/19 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	371515	03/13/19 11:32	AJC	TAL CAN
Total/NA	Prep	9012A			371273	03/12/19 13:31	MMM	TAL CAN
Total/NA	Analysis	9012A		1	371296	03/12/19 14:47	MMM	TAL CAN
Total/NA	Prep	9030B			371199	03/12/19 08:22	BLW	TAL CAN
Total/NA	Analysis	9034		1	371271	03/12/19 13:24	BLW	TAL CAN

Lab Chronicle

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: SB08-2-4 — Lab Sample ID: 240-109180-24

Date Collected: 03/07/19 08:30
Date Received: 03/09/19 09:50
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	371137	03/11/19 16:51	JWW	TAL CAN

Client Sample ID: SB08-2-4 — Lab Sample ID: 240-109180-24

Date Collected: 03/07/19 08:30
Date Received: 03/09/19 09:50
Matrix: Solid
Percent Solids: 90.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			371452	03/13/19 13:53	LAM	TAL CAN
Total/NA	Analysis	8260C		1	371803	03/15/19 19:14	SAM	TAL CAN
Total/NA	Prep	3540C			371871	03/16/19 10:19	EMB	TAL CAN
Total/NA	Analysis	8270C		1	372166	03/19/19 15:24	JMG	TAL CAN
Total/NA	Prep	3050B			371025	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	371350	03/12/19 22:01	WKD	TAL CAN
Total/NA	Prep	3050B			371025	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		2	371584	03/14/19 18:02	WKD	TAL CAN
Total/NA	Prep	3050B			371025	03/11/19 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		10	371806	03/15/19 18:37	WKD	TAL CAN
Total/NA	Prep	7471A			371027	03/11/19 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	371515	03/13/19 12:33	AJC	TAL CAN
Total/NA	Prep	9012A			371273	03/12/19 13:31	MMM	TAL CAN
Total/NA	Analysis	9012A		1	371296	03/12/19 14:49	MMM	TAL CAN
Total/NA	Prep	9030B			371199	03/12/19 08:22	BLW	TAL CAN
Total/NA	Analysis	9034		1	371271	03/12/19 13:24	BLW	TAL CAN

Client Sample ID: IMW-02-00001R — Lab Sample ID: 240-109180-25

Date Collected: 03/07/19 16:30
Date Received: 03/09/19 09:50
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371008	03/11/19 14:00	SLD	TAL CAN
Total Recoverable	Analysis	6010B		1	371350	03/12/19 17:46	WKD	TAL CAN
Total/NA	Prep	7470A			371016	03/11/19 12:00	SLD	TAL CAN
Total/NA	Analysis	7470A		1	371349	03/12/19 14:19	AJC	TAL CAN

Client Sample ID: 9584-030719-0003 — Lab Sample ID: 240-109180-26

Date Collected: 03/07/19 00:03
Date Received: 03/09/19 09:50
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371008	03/11/19 14:00	SLD	TAL CAN
Total Recoverable	Analysis	6010B		1	371350	03/12/19 18:27	WKD	TAL CAN
Total/NA	Prep	7470A			371016	03/11/19 12:00	SLD	TAL CAN
Total/NA	Analysis	7470A		1	371349	03/12/19 14:34	AJC	TAL CAN

Lab Chronicle

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Client Sample ID: IFW-02-00022R — Lab Sample ID: 240-109180-27

Date Collected: 03/08/19 10:00 — **Matrix: Water**
Date Received: 03/09/19 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	371838	03/15/19 20:08	TJL1	TAL CAN

Client Sample ID: 9584-030819-0004 — Lab Sample ID: 240-109180-28

Date Collected: 03/08/19 00:04 — **Matrix: Water**
Date Received: 03/09/19 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	371838	03/15/19 20:30	TJL1	TAL CAN

Client Sample ID: IMW-02-0004S — Lab Sample ID: 240-109180-29

Date Collected: 03/08/19 11:45 — **Matrix: Water**
Date Received: 03/09/19 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	371838	03/15/19 20:52	TJL1	TAL CAN

Client Sample ID: TRIP BLANK 1 — Lab Sample ID: 240-109180-30

Date Collected: 03/08/19 12:00 — **Matrix: Water**
Date Received: 03/09/19 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	371647	03/14/19 19:20	TJL1	TAL CAN

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Accreditation/Certification Summary

Client: ArcelorMittal USA Inc.
Project/Site: Indiana Harbor (IHLC)

Job ID: 240-109180-1

Laboratory: Eurofins TestAmerica, Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2927	02-23-20
Connecticut	State Program	1	PH-0590	12-31-19
Florida	NELAP	4	E87225	06-30-19
Illinois	NELAP	5	200004	07-31-19
Kansas	NELAP	7	E-10336	04-30-19 *
Kentucky (UST)	State Program	4	58	02-23-20
Kentucky (WW)	State Program	4	98016	12-31-19
Minnesota	NELAP	5	039-999-348	12-31-19 *
Minnesota (Petrofund)	State Program	1	3506	07-31-19
Nevada	State Program	9	OH00048	07-31-19
New Jersey	NELAP	2	OH001	06-30-19
New York	NELAP	2	10975	03-31-20
Ohio VAP	State Program	5	CL0024	09-06-19
Oregon	NELAP	10	4062	02-23-20
Pennsylvania	NELAP	3	68-00340	08-31-19 *
Texas	NELAP	6	T104704517-18-10	08-31-19
USDA	Federal		P330-16-00404	12-28-19
Virginia	NELAP	3	460175	09-14-19
Washington	State Program	10	C971	01-12-20 *
West Virginia DEP	State Program	3	210	12-31-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

1.2/C1.0 0.8/C0.6
1.0/C0.8
1.8/C1.6

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: A. Quick	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-58537-25025.4
Client Contact: Peggy Stonier	Phone: 513-704-1289	E-Mail: john.mcfadden@testamericainc.com		Page: Page 4 of 5
Company: ARCADIS U.S., Inc.				Job #:
Address: 222 S Main Street Suite 200	Due Date Requested: Standard			
City: Akron	TAT Requested (days): Standard			
State, Zip: OH, 44308				
Phone:	PO #: Purchase Order Requested			
Email: Peggy.Stonier@arcadis-us.com	WO #:			
Project Name: Indiana Harbor (IHLC)	Project #: 24022072			
Site: Arcelor Mittal Long Carbon	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

240-109180 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020 - (MOD) 6020 Appendix IX	8260B - TCL OLM03.1/4.2 Volatile Analyte List	9034_Calc - Local Method	8270C - OLM03.1/4.2 Semivolatile Analyte List	9012A - Local Method	6010B, 8270C, 9012A, 9034_Calc	8260B - TCL OLM03.1/4.2 Volatile Analyte List	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	A	CB	N	B	N	N		
SB01-0-2	3/5/19	0850	G	Solid	N	N	X	X	X	X	X	X	X	4	
SB01-5-7	3/5/19	0900	G	Solid	N	N	X	X	X	X	X	X	X	4	
SB02-0-2	3/5/19	0930	G	Solid	N	N	X	X	X	X	X	X	X	4	
SB02-6-8	3/5/19	1000	G	Solid	N	N	X	X	X	X	X	X	X	4	
SB03-0-2	3/5/19	1045	G	Solid	N	N	X	X	X	X	X	X	X	4	
SB03-6-8	3/5/19	1110	G	Solid	N	N	X	X	X	X	X	X	X	4	
4584-030519-0001	3/5/19	0001	G	Solid	N	N	X	X	X	X	X	X	X	4	Field Dup
SB04-0-2	3/5/19	1430	G	Solid	N	N	X	X	X	X	X	X	X	4	[illegible]
SB04-6-8	3/5/19	1510	G	Solid	N	Y	X	X	X	X	X	X	X	12	MS/MSD
SB05-0-2	3/6/19	0800	G	Solid	N	Y	X	X	X	X	X	X	X	12	MS/MSD
SB05-6-8	3/6/19	0830	G	Water Solid	N	N	X	X	X	X	X	X	X	4	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Adam Quick	3/8/1800	HHA	[signature]	03/09/19 950	TMC

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: A. Quirk	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-58537-25025.2
Client Contact: Peggy Stonier	Phone: 513-704-1289	E-Mail: john.mcfadden@testamericainc.com		Page: Page 2 of 5
Company: ARCADIS U.S., Inc.				Job #:
Address: 222 S Main Street Suite 200	Due Date Requested: Standard			
City: Akron	TAT Requested (days): Standard			
State, Zip: OH, 44308				
Phone:	PO #: Purchase Order Requested			
Email: Peggy.Stonier@arcadis-us.com	WO #:			
Project Name: Indiana Harbor (IHLC)	Project #: 24022072			
Site: Arcelor Mittal Long Carbon	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020 - (MOD) 6020 Appendix IX	8260B - TCL OLM03.1/4.2 Volatile Analyte List	9034_Calc - Local Method	8270C - OLM03.1/4.2 Semivolatile Analyte List	9012A - Local Method	6010B, 8270C, 9012A, 9034_Calc	8260B - TCL OLM03.1/4.2 Volatile Analyte List	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	A	CB	N	B	N	N		
Rinse Blank 1	3/6/19	1045	G	Water	N	N	X	X	X	X	X	X	X	8	
Rinse Blank 2	3/6/19	1445	G	Water	N	N	X	X	X	X	X	X	X	8	
9534-030619-0002	3/6/19	0002	G	Solid	N	N	X	X	X	X	X	X	X	4	Field Dup
SB06-0-2	3/6/19	0915	G	Solid	N	N	X	X	X	X	X	X	X	4	
SB06-2-4	3/6/19	0945	G	Solid	N	N	X	X	X	X	X	X	X	4	
SB07-0-2	3/6/19	1125	G	Solid	N	N	X	X	X	X	X	X	X	4	
SB07-4-6	3/6/19	1155	G	Solid	N	N	X	X	X	X	X	X	X	4	
SB09-0-2	3/6/19	1240	G	Solid	N	N	X	X	X	X	X	X	X	4	
SB09-3-5	3/6/19	1300	G	Solid	N	N	X	X	X	X	X	X	X	4	
SB10-0-2	3/6/19	1335	G	Solid	N	N	X	X	X	X	X	X	X	4	
SB10-4-6	3/6/19	1400	G	Solid	N	N	X	X	X	X	X	X	X	4	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Adam Quirk	Date/Time: 3/8/1800	Company: LTA	Received by:	Date/Time: 03/09/19 950	Company: TAC
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: A. Quirk	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-58537-25025.1
Client Contact: Peggy Stonier	Phone: 513-704-1284	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 5
Company: ARCADIS U.S., Inc.				Job #:
Address: 222 S Main Street Suite 200	Due Date Requested: Standard			
City: Akron	TAT Requested (days): Standard			
State, Zip: OH, 44308				
Phone:	PO #: Purchase Order Requested			
Email: Peggy.Stonier@arcadis-us.com	WO #:			
Project Name: Indiana Harbor (IHLC)	Project #: 24022072			
Site: Arcelor Mittal Long Carton	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020 - (MOD) 6020 Appendix IX	8260B - TCL OLM03.1/4.2 Volatile Analyte List	9034_Calc - Local Method	8270C - OLM03.1/4.2 Semivolatile Analyte List	9012A - Local Method	6010B, 8270C, 9012A, 9034_Calc	8260B - TCL OLM03.1/4.2 Volatile Analyte List	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	A	CB	N	B	N	N		
SB08-0-2	3/7/19	0800	G	~~Water~~ Solid	N	N	X	X	X	X	X	X	X	4	
SB08-2-4	3/7/19	0830	G	~~Water~~ Solid	N	N	X	X	X	X	X	X	X	4	
IMW-02-00001R	3/7/19	1630	G	Water	N	Y	X							9	MS/MSD
9584-030719-0003	3/7/19	0003	G	Water	N	N	X							1	Field Dup 3
IFW-02-00022R	3/8/19	1000	G	Water	N	N		X						3	
9584-030819-0004	3/8/19	0004	G	Water	N	N		X						3	Field Dup 4
IMW-02-00045	3/8/19	1145	G	Water	N	Y		X						9	MS/MSD
Trip Blank 1	3/8/19	1200	G	Water	N	N		X						1 ~~2~~	Trip Blank
				Water											
				Water											
				Water											

Possible Hazard Identification
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] Return To Client [X] Disposal By Lab [ ] Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Adam Quirk	3/8/1800	H+A	[signature]	03/09/19 950	TAL

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 109180

Client Arcadis Site Name _____

Cooler Received on 03/09/19 Opened on 03/09/19

Cooler unpacked by: DD

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # TP Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☒ See Multiple Cooler Form
   IR GUN# IR-8 (CF **-0.2** °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN #36 (CF **+0.7**°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 each Yes No
   -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
   -Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 12-16 have been checked at the originating laboratory.
12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC861525**
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # Covered Yes No
16. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: DD

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

WI-NC-099

Login # : 109180

TestAmerica Canton Sample Receipt Multiple Cooler Form				
Cooler Description	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
7A	8	1.2	1.0	Ice
		1.0	0.8	
		0.8	0.6	
		1.8	1.6	
		2.0	1.8	

☐ See Temperature Excursion Form

WI-NC-099 Cooler Receipt Form Page 2 – Multiple Coolers

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
RINSE BLANK 1	240-109180-D-12	Plastic 250ml - with Sodium Hydro›	>12	_____	_____
RINSE BLANK 1	240-109180-E-12	Plastic 500ml - with Zn Acetate and	>9	_____	_____
RINSE BLANK 1	240-109180-F-12	Plastic 500ml - with Nitric Acid	<2	_____	_____
RINSE BLANK 2	240-109180-D-13	Plastic 250ml - with Sodium Hydro›	>12	_____	_____
RINSE BLANK 2	240-109180-E-13	Plastic 500ml - with Zn Acetate and	>9	_____	_____
RINSE BLANK 2	240-109180-F-13	Plastic 500ml - with Nitric Acid	<2	_____	_____
IMW-02-00001R	240-109180-A-25	Plastic 500ml - with Nitric Acid	<2	_____	_____
IMW-02-00001R	240-109180-B-25	Plastic 500ml - with Nitric Acid	<2	_____	_____
IMW-02-00001R	240-109180-C-25	Plastic 500ml - with Nitric Acid	<2	_____	_____
9584-030719-0003	240-109180-A-26	Plastic 500ml - with Nitric Acid	<2	_____	_____