UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO ATTENTION OF
ECW-15J

VIA EMAIL

Mr. Tom Maicher
Environmental Manager
Cleveland Cliffs Burns Harbor
250 West U.S. Highway 12
Burns Harbor, IN 46304

Subject: July 12, 2021 Reconnaissance Inspection Report for Cleveland Cliffs Burns Harbor, NPDES Permit Number IN0000175

Dear Mr. Maicher:

Enclosed, please find a copy of the U.S. Environmental Protection Agency Inspection Report that describes, and documents the activities at Cleveland Cliffs Burns Harbor, LLC on July 12, 2021.

The purpose of the reconnaissance inspection at Cleveland Cliffs Burns Harbor, LLC was to gather information on specific processes at the facility and discuss the recent power failures and bypass events at the facility.

On July 29, 2021, IDEM and EPA received the sediment sample analysis that CCBH personnel stated would be sent following the inspection. Also on July 29, 2021, EPA received the list of locations where CCBH has identified the need for uninterruptable power supplies to be installed.

If you have any questions or concerns regarding this letter, or the inspection report, please contact Joan Rogers at (312) 886-2785 or at rogers.joan@epa.gov.

Sincerely,

RYAN BAHR

Digitally signed by RYAN BAHR
Date: 2021.08.27 13:34:10 -05'00'

Ryan J. Bahr,
Chief, Section 2
Water Enforcement and Compliance Assurance Branch

Enclosure

cc: Nicholas Ream, Environmental Engineer
Indiana Department of Environmental Management

Jason House, Branch Chief of Wastewater Compliance
Indiana Department of Environmental Management

To CWA COMPLIANCE EVALUATION INSPECTION REPORT
U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 5

Purpose:
Compliance Evaluation Reconnaissance Inspection

Facility:
Cleveland Cliffs Burns Harbor, LLC
250 US-12
Burns Harbor, Indiana 46304
Porter County
41.625, -87.117

NPDES Permit Number:
IN0000175

Date of Inspection:
July 12, 2021

EPA Representatives:
Joan Rogers, Environmental Scientist 312-886-2785
Rogers.joan@epa.gov

State Representatives:
Nicholas Ream, Indiana Department of Environmental Management 219-730-1691
Wastewater Inspector
nream@idem.IN.gov

Robert Lugar, Indiana Department of Environmental Management 317-234-6019
RLugar@idem.IN.gov

Facility Representatives:
Tom Maicher, Manager of the Environmental Plant 219-787-4961
Robert.maciel@ClevelandCliffs.com

Morgan Swanson, Environmental Engineer 219-787-2646
Morgan.swanson@ClevelandCliffs.com

Cary Mathias, Regional Waste Manager 330-659-9124
Cary.mathias@ClevelandCliffs.com

Patrick Gorman, Operator
Patrick.gorman@ClevelandCliffs.com

Courtney Zunica –Notetaker for Cleveland Cliffs Burns Harbor

Matt Hausman, Operation Manager for Ramboll Group Company

Nathan Nowicki, Process Engineer for Centrisys Corporation

Report Prepared by:
Joan Rogers

Inspector Signature: JOAN ROGERS Digitally signed by JOAN ROGERS Date: 2021.08.26 12:14:14 -05'00'

Approver Name and Title: Ryan Bahr, Chief, Section 2, WECAB

Approver Signature/Date: RYAN BAHR Digitally signed by RYAN BAHR Date: 2021.08.27 13:28:28 -05'00'

1. BACKGROUND

The purpose of this report is to describe and document the reconnaissance inspection at the Cleveland Cliffs Burns Harbor facility on July 12, 2021. This inspection was performed pursuant to Section 308(a) of the Federal Water Pollution Control Act, as amended. This was a joint inspection by EPA and the Indiana Department of Environmental Management (IDEM).

The Cleveland Cliffs Burns Harbor (CCBH) facility is one of the largest fully integrated steel mills in North America, with the capacity to produce approximately 5 million tons of raw steel per year. They operate under NPDES Permit No. IN0000175, which was issued on May 27, 2016 and expires on June 30, 2021. A permit renewal application has been submitted to IDEM. The facility was previously owned by ArcelorMittal and was known as ArcelorMittal Burns Harbor.

The inspection on July 12, 2021 was a Compliance Evaluation Reconnaissance Inspection to discuss recent power failures and a reported phenols exceedance that was rescinded. IDEM inspector Mr. Nick Ream notified Mr. Tom Maicher and Ms. Morgan Swanson of the inspection on June 24, 2021. On July 7, 2021, Mr. Ream notified Mr. Maicher and Ms. Swanson that the inspectors wished to discuss the new ammonia treatment process, the lagoon influent channel dredging, the recent power failures at Waste Water Pump Stations #1 and #2 (WWPS 1 and WWPS 2), the May 20, 2021 phenols analysis, and the status of the diversion of the RSB thickener overflow to a centrifuge. The inspectors also wanted to observe the new ammonia treatment process and the Secondary Wastewater Treatment Plant (SWTP) while they were on site.

2. SITE INSPECTION

Site Entry and Opening Conference

Arrival Time:	9:30 A.M.
Presented credentials?	Yes.
Credentials presented to whom and at what time?	9:30 A.M. to Tom Maicher, Cary Mathias, Pat Gorman, Morgan Swanson, and Courtney Zunica.
Was an opening conference held? With whom?	Yes. Ms. Swanson, Mr. Maicher, Mr. Mathias, Mr. Gorman, and Ms. Zunica.
If photographs or documents were taken, does the facility consider any to be Confidential Business Information (CBI)?	No.
Which information does the facility consider to be CBI?	None.
EPA vehicle parked in approved location?	Yes.
Location where EPA vehicle was parked?	Environmental Services Building.

EPA inspector, Ms. Joan Rogers, and IDEM inspectors Mr. Bob Lugar and Mr. Nick Ream followed Ms. Swanson to the Environmental Services Building conference room from the main office where EPA and IDEM inspectors received their visitor badges. The inspection team explained that the purpose of the inspection was to discuss the issues that were shared via email on July 7, 2021.

Ammonia Treatment Process

The conversation began with a description of ammonia treatment from the Blast Furnace Recycle System (BFRS) blowdown. Cleveland Cliffs representatives explained that the temporary system has been reducing ammonia by half of the limit or approximately 175 lb/day or 375 lb/7-day average. Breakpoint chlorination at the end of the process brings the ammonia down to 2ppm or less. The chlorine would also destruct cyanide if needed. Since they added water softening before the cooling towers to prevent build-up of solids in the towers, the system has been removing more ammonia than previously. Mr. Mathias provided two diagrams of the Outfall 001 Ammonia-Mass Discharge from 2020 and 2021. These are attached to this report as Attachment B.

Solids from the Reclamation Services Building (RSB) thickener underflow are removed with three centrifuges and the centrate is returned back to the BFRS. Recently, the facility personnel noticed that the polymer added to the line to the three centrifuges was not being utilized evenly by each centrifuge. This caused clogging at some centrifuges when the flow was low. Facility personnel intend to inject the polymer to each individual centrifuge in the future, so it is more even. Facility personnel are still working through understanding the dynamics of the system.

Starting in mid-September, the facility will begin removing the temporary ammonia treatment system but will still run a cooling tower for ammonia reduction. The water is heated to 120° before going to the cooling tower. The cooling tower alone is estimated to remove approximately 60% of the ammonia.

Lagoon Influent Dredging

One of the three bidders for the lagoon influent dredging project performed a test of the dredging to document what controls were going to be needed to prevent solids from the dredging operation to flow out the outfalls and potentially cause a permit exceedance. The bidder lined the channel with booms and took 8-10 test scoops from the influent channel. A plume of sediment was observed and CCBH personnel realized that there would need to be additional precautions taken before the project could be awarded to any company. The dredging is on hold until at least Spring 2022 while CCBH explores ways to mitigate the possibility of a permit exceedance while the sediment is removed.

CCBH sent the sediment that was removed out for analysis. The sediment has high concentrations of iron and about 5% oil and grease. EPA and IDEM requested copies of the sample analysis. Mr. Maicher sent that information on July 29, 2021. The sediment analysis report is Attachment C of this inspection report.

Recent Power Failures at Waste Water Pump Stations #1 and #2

On May 24, 2021, CCBH experienced a power failure at the SWTP Operator Control room which caused the pump to stop at WWPS 2. The water level rose and overflowed approximately 21,700 gallons of untreated wastewater to the Storm Ditch which flows to Outfall 001. After approximately 6 minutes, operators were able to restore power, restart the two pumps and lower the water level below the overflow point.

On June 21, 2021, CCBH experienced another power failure, although just a power dip, during a thunderstorm. The power dip was at the SWTP and WWPS 1, which caused the Hot Mill & Cold Mill pumps to stop pumping. This caused an overflow at Manhole 120 (MH120) for a maximum of five minutes and an estimated 107,000 gallons of untreated water to flow to the Storm Ditch. CCBH provided IDEM with Bypass/Overflow Incident Reports via email.

During the inspection, Mr. Maicher explained that a study is being conducted to address the power issues. They are looking at the power feeds to all wastewater operations and installing Uninterruptable Power Supplies (UPS) at all the Programmable Logic Controllers (PLCs) for wastewater operations. Additionally, Northern Indiana Public Service Company (NIPSCO) is installing automatic switching for the dual electric feeds.

EPA and IDEM requested the list of locations where CCBH has identified the need for UPS installation. Mr. Maicher stated that he would provide that to the Agencies.

May 20, 2021 Phenols Analysis

On May 20, 2021, CCBH received notification from Microbac Laboratories, Inc., their contract laboratory, that there was a sample that showed elevated phenols at Outfall 001. An analysis of operations showed that there were no upsets at the facility. Also, the sample upstream of Outfall 001, from Outfall 011, was below detection limit. As a precaution, CCBH submitted a Noncompliance 24-hour Notification Report to IDEM on

May 21, 2021. According to the sample analysis, the monitored value was 63.27 pounds, over the 22 pounds/day permit limit.

CCBH requested redistillation and reanalysis from the original sample. Four additional samples from the same sample were redistilled and reanalyzed and all were below detection limit. Ms. Swanson concluded interference from glassware. EPA and IDEM requested the Level IV report for the analysis. The Level IV report did not state that there were any lab errors that would cause the sample analysis to be incorrect.

On June 2, 2021, CCBH submitted an updated Noncompliance 24-Hour Notification Report. This report states that after averaging all the results of the reanalysis, the facility was in compliance with their NPDES Permit and the mass loading issue at Outfall 001 on May 20, 2021 was not an incident of non-compliance.

During the inspection, EPA suggested that CCBH contact Microbac Laboratories, Inc. for an analysis of the records of the glassware that was used in the analysis of the phenols that day. Mr. Maicher stated that he would do that.

Facility Walkthrough

See Attachment A for the photolog of the photos taken during the facility walkthrough.

EPA and IDEM concluded the interview portion of the inspection at 11:20 A.M. and stated that they would like to observe the ammonia treatment, the centrifuges, WWPS 1 and WWPS 2, the SWTP, and Outfall 001.

Ammonia Treatment

EPA and IDEM arrived at the ammonia treatment at 11:26 A.M. EPA observed the control panel in the Control Room. The Control Panel does not yet reflect the new ammonia treatment. Mr. Gorman explained that cyanide is measured to 0.1 ppm and at 3 ppm they begin chlorine dioxide treatment. They measure cyanide and ammonia one time per turn (shift) unless levels are higher. Then they test the levels of cyanide and/or ammonia every two hours.

Outside the Control Room, EPA and IDEM observed the new ammonia treatment. Mr. Hausman explained the process. Blast Furnace Recycle System blowdown is directed to Tank #1, where soda ash is introduced to raise the pH. The flow then goes to clarifiers for settling of solids. The sludge from the clarifiers is dewatered and then hauled to the landfill. The leachate is sent back to Tank #1.

The overflow from the clarifiers goes to tank T3, where it is heated, and pH is raised a bit more. Two fixed speed pumps raise the flow to cooling towers to strip the ammonia from the water. Then the flow goes to tank T4 for breakpoint chlorination using sodium hypochlorite. Hydrogen sulfate is then added to lower the pH to 6-7.

After ammonia treatment, the blowdown is directed to the Dirty Industrial Sewer (DIW) and to the SWTP.

Centrifuges

EPA and IDEM arrived at the centrifuges at 12:11 P.M. Mr. Nowicki explained that the RSB thickener overflow is directed to a white tank which feeds the three centrifuges. Originally, a polymer was added to the white tank to assist the centrifuges to remove the solids, but the polymer was not being distributed evenly between each centrifuge. Mr. Nowicki said they are trying to feed the polymer to each centrifuge feed line separately now.

EPA observed the three centrifuges and the solids removed from one.

WWPS 2

EPA and IDEM arrived at WWPS 2 at 12:30 P.M. Flow from the steel production, RSB (including the sinter plant), BFRS Blowdown, and the 110 Plate Mill goes to the WWPS 2 which pumps it to the SWTP. There is capacity for four pumps in WWPS 2 but only three are connected.

Mr. Gorman explained how, on May 24, 2021 during the power failure, the discharge from the pump station overflowed from a designed overflow point and flowed to the Storm Ditch.

WWPS 1

EPA and IDEM arrived at WWPS 1 at 1:03 P.M. There are two sewers from the Hot and Cold Mills of the plant. Originally, they were separated, but now they are intermixed. Four pumps on the Cold Mill side of WWPS 1 and five pumps on the Hot Mill side of WWPS 1 pump the wastewater to the SWTP.

When the pumps stopped working on June 21, 2021, the water backed up in MH120 and overflowed a weir and flowed to the Storm Ditch.

SWTP

EPA and IDEM then walked to the SWTP and observed a sheen of oil on the surface of the water on a clarifier on the Hot Mill side of the SWTP. EPA also observed a tree growing in the thickener on the Cold Mill side of the SWTP. Mr. Maicher stated that the facility planned to look for oil sources at the facility and try to locate where the oil was getting into the wastestream.

EPA and IDEM then observed the Water Cannon to the Storm Ditch. The Water Cannon is used to cool the temperature of the water in the Storm Ditch when necessary.

MH120

The inspection team then drove to MH120 and arrived at 1:32 P.M. The inspection team climbed the structure to observe the weir that the wastewater overflowed on June 21, 2021 during the power failure.

Outfall 001

At 1:54 P.M., the inspection team arrived at Outfall 001. EPA did not observe a sheen in the receiving waterbody. EPA observed that the temperature in the auto-sampler was 1°C. EPA observed the readings for the stream temperature (80.6°F) and pH (8.44).

EPA and IDEM provided a brief closing conference at Outfall 001 and then exited the area at 2:30 P.M.

3. DOCUMENTS RECEIVED FROM FACILITY

- Outfall 001 Ammonia – Mass Discharge graphs from 2020 and 2021.

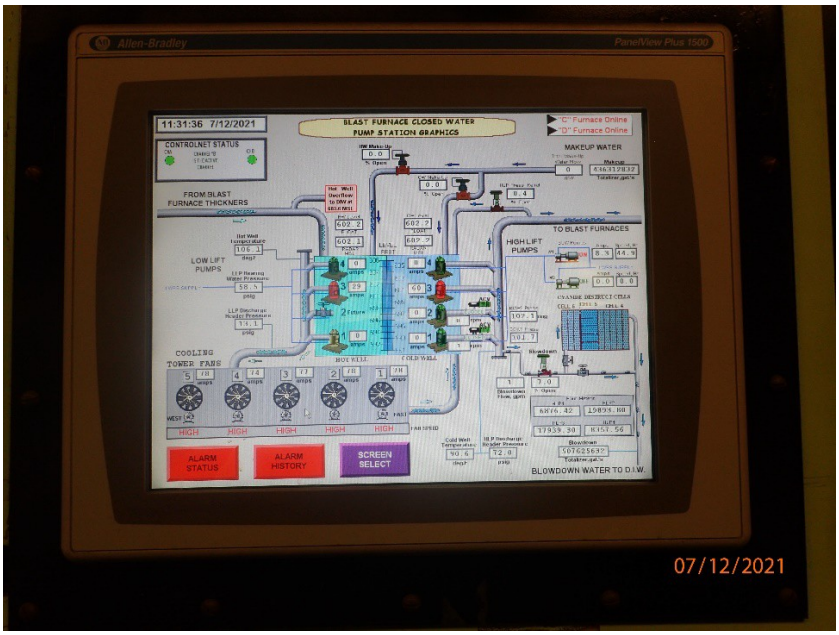
4. AREAS OF CONCERN

A. Influent channel is a pinch point for flow to the lagoons due to buildup of sludge in the channel. Work to dredge the influent channel cannot be started until at least Spring 2022.
B. Power failures cause loss of pump function allowing untreated wastewater to discharge to the Storm Ditch.
C. Oil sheen observed in the clarifier effluent in Hot Mill side of the SWTP.
D. Tree growing on weir in the thickener on the Cold Mill side of the SWTP.

5. LIST OF ATTACHMENTS

A) Photolog
B) Outfall 001 Ammonia – Mass Discharge graphs from 2020 and 2021.
C) Sediment Analysis Report

Attachment A
Cleveland Cliffs Burns Harbor
EPA Inspection July 12, 2021
All photos taken by Joan Rogers, Environmental Scientist, U.S. EPA
Camera: Olympus Tough TG-4

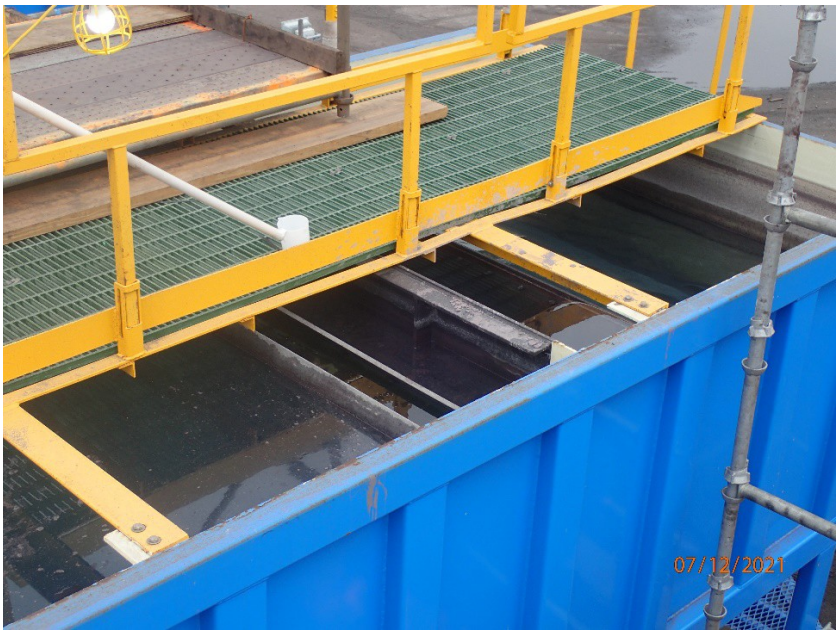


1: P7120001
Description: Control Screen for Blast Furnace Closed Water Pump Station.
Location: Control Room.
Camera Direction: West
Date/Time: July 12, 2021/11:32 A.M.

2: P7120002
Description: Tank T1 (white tank on left) is where caustic and soda ash are added to the blowdown. The two blue tanks are clarifiers.
Location: South of the Cooling Towers.
Camera Direction: East
Date/Time: July 12, 2021/11:49 A.M.

3: P7120003
Description: Sample location from Tank T1 is on top of the tank.
Location: On top of Tank T1.
Camera Direction: Southwest and Down
Date/Time: July 12, 2021/11:51 A.M.

4: P7120004
Description: The influent to the clarifier is on the left of the blue tank.
Location: On top of Tank T1.
Camera Direction: Southeast
Date/Time: July 12, 2021/11:52 A.M.



5: P7120005
Description: The effluent from the clarifier is on the right of the blue tank.
Location: On top of Tank T1.
Camera Direction: Southwest
Date/Time: July 12, 2021/11:53 A.M.

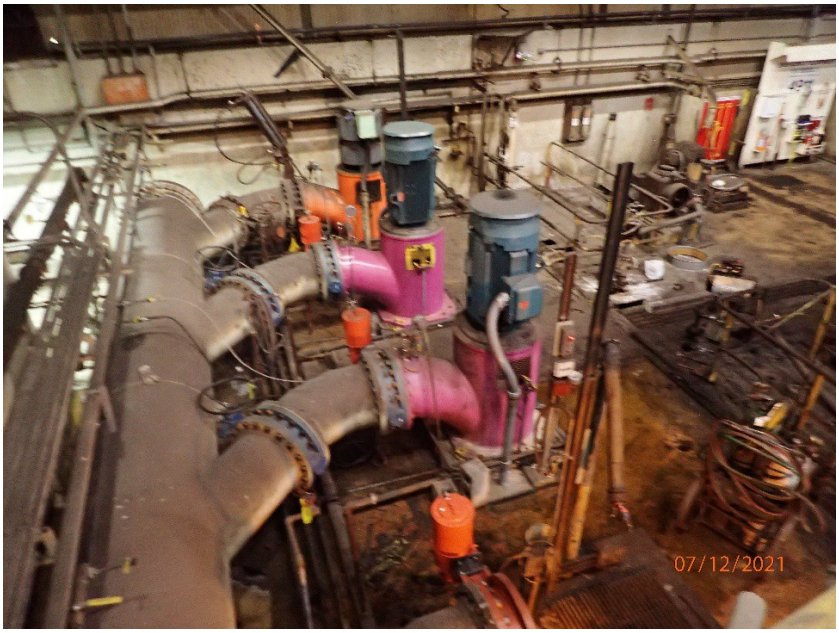
6: P7120006
Description: The sludge from the clarifiers is collected and allowed to drain. The leachate is collected in a sump and fed back to Tank T1.
Location: South of the Cooling Towers
Camera Direction: North
Date/Time: July 12, 2021/11:59 A.M.

7: P7120007
Description: The blowdown water after treatment.
Location: South of the Cooling Towers.
Camera Direction: Down
Date/Time: July 12, 2021/12:03 P.M.

8: P7120008
Description: Sludge from the #318 Centrifuge is collected and dewatered.
Location: West of the RSB Thickener.
Camera Direction: North
Date/Time: July 12, 2021/12:14 P.M.

9: P7120009
Description: The three centrifuges for removing solids from the RSB Thickener Overflow. #318 is nearest the camera, #310 is in the middle, #325 is furthest from the camera.
Location: West of the RSB Thickener.
Camera Direction: Northeast
Date/Time: July 12, 2021/12:23 P.M.

10: P7120010
Description: The Cold Mill Pumps in Waste Water Pump Station 1.
Location: Inside Waste Water Pump Station 1.
Camera Direction: East
Date/Time: July 12, 2021/1:06 P.M.



11: P7120011
Description: The Hot Mill Pumps in Waste Water Pump Station 1.
Location: Inside Waste Water Pump Station 1.
Camera Direction: West
Date/Time: July 12, 2021/1:07 P.M.

12: P7120012
Description: Sheen observed at a clarifier on the Hot Mill side of the SWTP.
Location: Hot Mill side of the SWTP.
Camera Direction: South
Date/Time: July 12, 2021/1:09 P.M.

13: P7120013
Description: Plant growing in the thickener on the Cold Mill side of the SWTP.
Location: Cold Mill side of the SWTP.
Camera Direction: South
Date/Time: July 12, 2021/1:16 P.M.

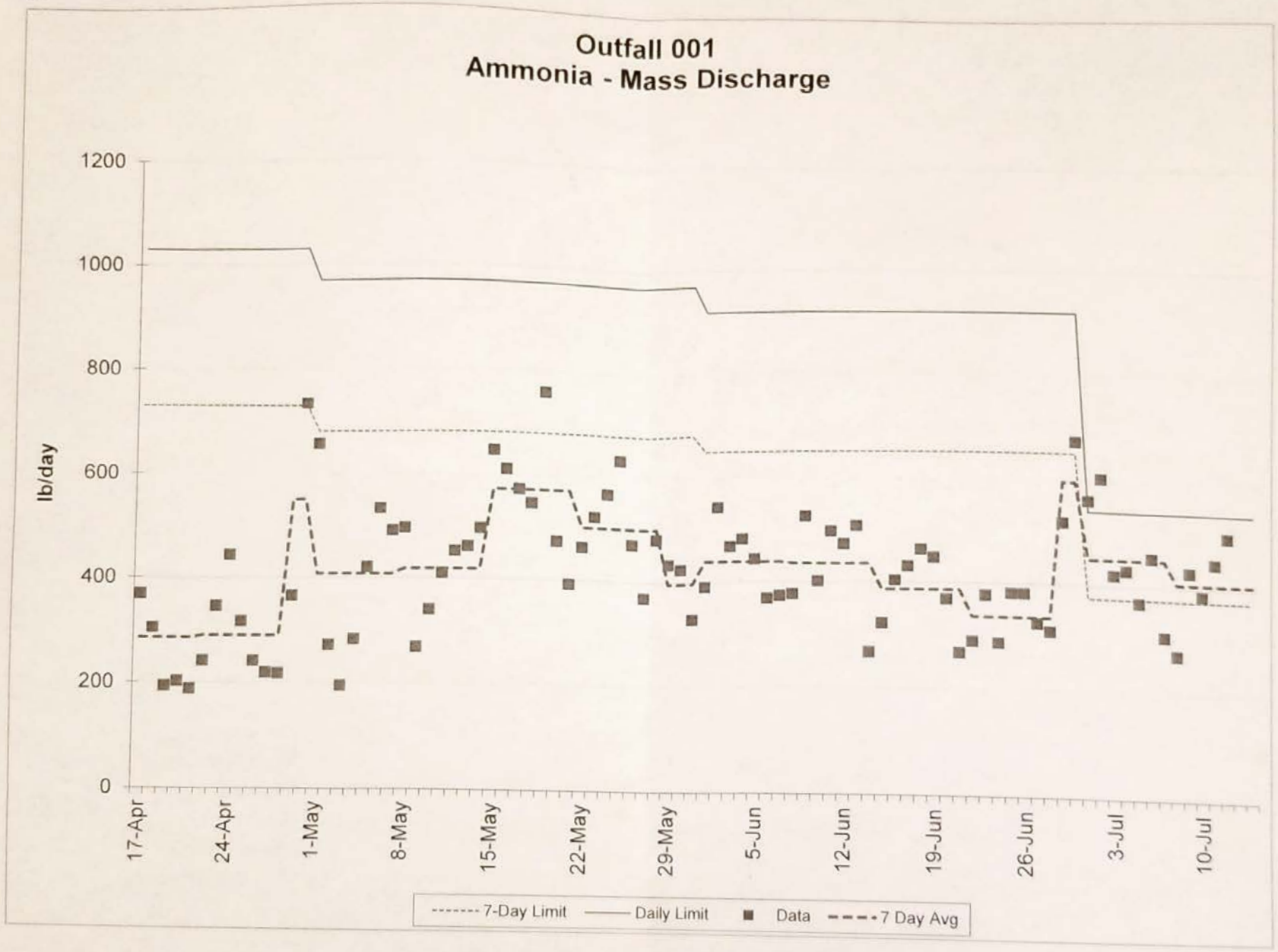
14: P7120014
Description: Water Cannon to the Storm Ditch.
Location: North of the SWTP.
Camera Direction: Northwest
Date/Time: July 12, 2021/1:19 P.M.

15: P7120015
Description: Manhole 120 overflow location that can overflow to the Storm Ditch.
Location: Manhole 120.
Camera Direction: Down
Date/Time: July 12, 2021/1:32 P.M.

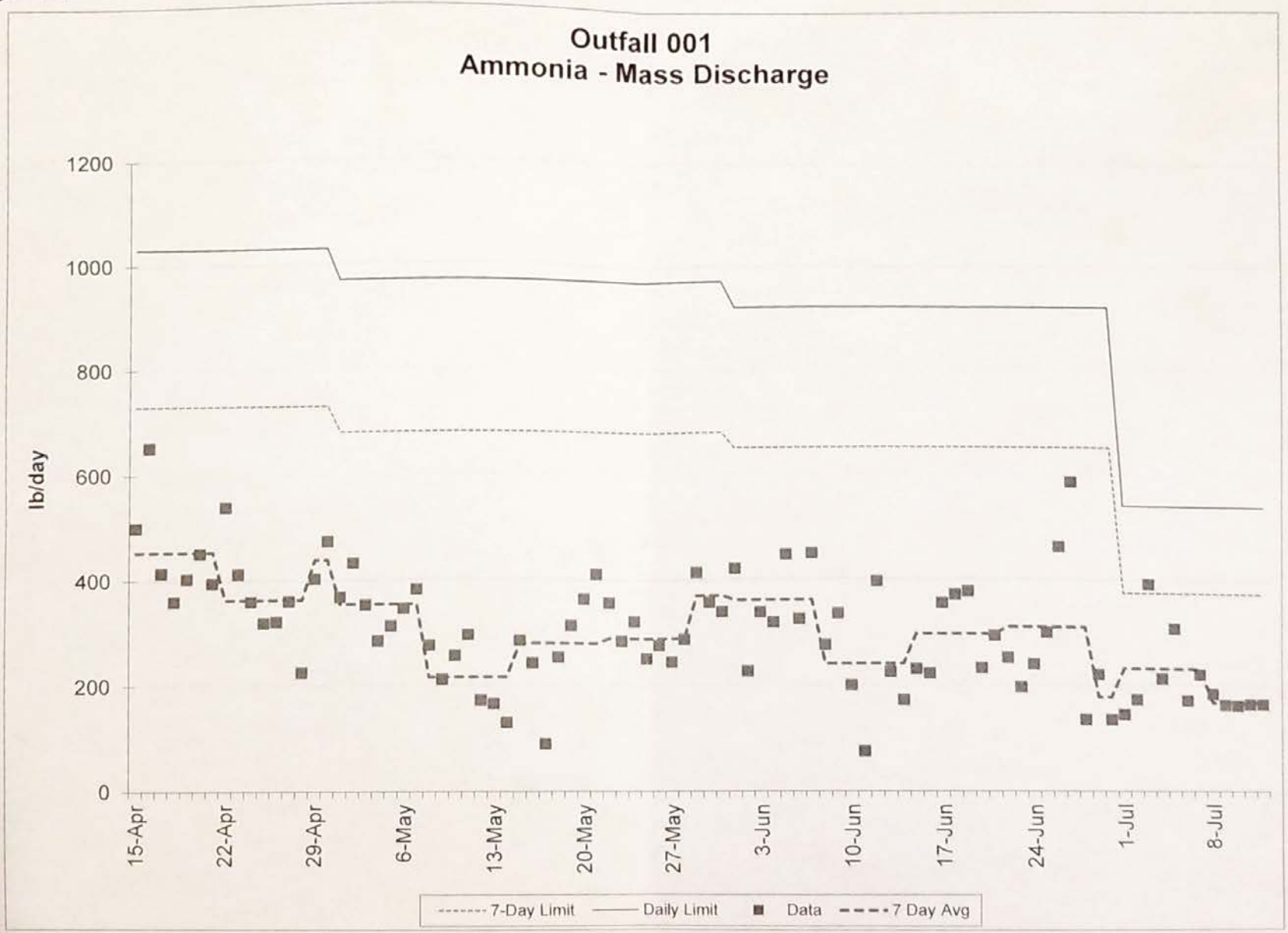
16: P7120016
Description: Looking upstream at Outfall 001.
Location: Outfall 001.
Camera Direction: West/Northwest
Date/Time: July 12, 2021/1:57 P.M.

2020

Attachment B



2021


Outfall 001
Ammonia - Mass Discharge
lb/day
1200
1000
800
600
400
200
0
15-Apr
22-Apr
29-Apr
6-May
13-May
20-May
27-May
3-Jun
10-Jun
17-Jun
24-Jun
1-Jul
8-Jul
7-Day Limit
Daily Limit
Data
7 Day Avg

Attachment C

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-196180-1
Client Project/Site: Inlet Channel Sediment

For:
ArcelorMittal USA Inc.
250 West US Highway 12
Burns Harbor, Indiana 46304

Attn: John Olashuk

Authorized for release by:
3/30/2021 3:21:45 PM

Diana Mockler, Project Manager I
(219)252-7570
Diana.Mockler@Eurofinset.com

Table of Contents

Job ID: 500-196180-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-196180-1

Comments
No additional comments.

Receipt
The sample was received on 3/16/2021 1:38 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.3º C.

GC/MS VOA
Method 8260B: The following sample was diluted due to the abundance of non-target analytes: Inlet Channel Sediment (500-196180-1). Elevated reporting limits (RLs) are provided.

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

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
Method 6010B: The method blank for preparation batch 500-589142 and analytical batch 500-589573 contained Iron above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

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

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

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

Detection Summary

Client: ArcelorMittal USA Inc.
Project/Site: Inlet Channel Sediment

Job ID: 500-196180-1

Client Sample ID: Inlet Channel Sediment

Lab Sample ID: 500-196180-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	110		110	46	ug/Kg	2	☼	8260B	Total/NA
Carbon disulfide	11	J	27	5.5	ug/Kg	2	☼	8260B	Total/NA
Aluminum	3600	B	52	21	mg/Kg	1	☼	6010B	Total/NA
Antimony	12		5.2	1.0	mg/Kg	1	☼	6010B	Total/NA
Arsenic	17		2.6	0.89	mg/Kg	1	☼	6010B	Total/NA
Barium	45		2.6	0.30	mg/Kg	1	☼	6010B	Total/NA
Beryllium	3.4		1.0	0.24	mg/Kg	1	☼	6010B	Total/NA
Cadmium	16	B	0.52	0.093	mg/Kg	1	☼	6010B	Total/NA
Calcium	56000		52	8.8	mg/Kg	1	☼	6010B	Total/NA
Chromium	200		2.6	1.3	mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.0		1.3	0.34	mg/Kg	1	☼	6010B	Total/NA
Copper	240		2.6	0.72	mg/Kg	1	☼	6010B	Total/NA
Iron	320000		260	130	mg/Kg	5	☼	6010B	Total/NA
Lead	660		6.5	3.0	mg/Kg	5	☼	6010B	Total/NA
Magnesium	4100	B	26	13	mg/Kg	1	☼	6010B	Total/NA
Manganese	3900	B	2.6	0.38	mg/Kg	1	☼	6010B	Total/NA
Nickel	130		13	3.8	mg/Kg	5	☼	6010B	Total/NA
Potassium	620	B	130	46	mg/Kg	1	☼	6010B	Total/NA
Selenium	7.4		2.6	1.5	mg/Kg	1	☼	6010B	Total/NA
Silver	5.8		1.3	0.33	mg/Kg	1	☼	6010B	Total/NA
Sodium	410		260	38	mg/Kg	1	☼	6010B	Total/NA
Vanadium	78		6.5	1.5	mg/Kg	5	☼	6010B	Total/NA
Zinc	2900		5.2	2.3	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.29		0.044	0.015	mg/Kg	1	☼	7471B	Total/NA
Cyanide, Total	0.68		0.67	0.34	mg/Kg	1	☼	9012B	Total/NA
pH	7.5		0.2	0.2	SU	1		9045D	Total/NA
HEM (Oil & Grease)	49000		1200	600	mg/Kg	1	☼	9071B	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: ArcelorMittal USA Inc.
Project/Site: Inlet Channel Sediment

Job ID: 500-196180-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
6010C	Metals (ICP)	SW846	TAL CHI
7470A	Mercury (CVAA)	SW846	TAL CHI
7471B	Mercury (CVAA)	SW846	TAL CHI
9012B	Cyanide, Total andor Amenable	SW846	TAL CHI
9045D	pH	SW846	TAL CHI
9071B	HEM and SGT-HEM	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
1311	TCLP Extraction	SW846	TAL CHI
3010A	Preparation, Total Metals	SW846	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI
5030B	Purge and Trap	SW846	TAL CHI
7470A	Preparation, Mercury	SW846	TAL CHI
7471B	Preparation, Mercury	SW846	TAL CHI
9010C	Cyanide, Distillation	SW846	TAL CHI
9071B	Preparation, HEM and SGT-HEM	SW846	TAL CHI

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 CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: ArcelorMittal USA Inc.
Project/Site: Inlet Channel Sediment

Job ID: 500-196180-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-196180-1	Inlet Channel Sediment	Solid	03/11/21 08:40	03/16/21 13:38	

Client: ArcelorMittal USA Inc.
Project/Site: Inlet Channel Sediment

Job ID: 500-196180-1

Client Sample ID: Inlet Channel Sediment
Date Collected: 03/11/21 08:40
Date Received: 03/16/21 13:38

Lab Sample ID: 500-196180-1
Matrix: Solid
Percent Solids: 37.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**110**		110	46	ug/Kg	☼		03/25/21 11:31	2
Benzene	<11		11	2.7	ug/Kg	☼		03/25/21 11:31	2
Bromodichloromethane	<11		11	2.2	ug/Kg	☼		03/25/21 11:31	2
Bromoform	<11		11	3.1	ug/Kg	☼		03/25/21 11:31	2
Bromomethane	<27		27	10	ug/Kg	☼		03/25/21 11:31	2
Carbon disulfide	**11**	**J**	27	5.5	ug/Kg	☼		03/25/21 11:31	2
Carbon tetrachloride	<11		11	3.1	ug/Kg	☼		03/25/21 11:31	2
Chlorobenzene	<11		11	3.9	ug/Kg	☼		03/25/21 11:31	2
Chloroethane	<27		27	7.9	ug/Kg	☼		03/25/21 11:31	2
Chloroform	<11		11	3.7	ug/Kg	☼		03/25/21 11:31	2
Chloromethane	<27		27	11	ug/Kg	☼		03/25/21 11:31	2
cis-1,2-Dichloroethene	<11		11	3.0	ug/Kg	☼		03/25/21 11:31	2
cis-1,3-Dichloropropene	<11		11	3.2	ug/Kg	☼		03/25/21 11:31	2
Cyclohexane	<11		11	4.1	ug/Kg	☼		03/25/21 11:31	2
Dibromochloromethane	<11		11	3.5	ug/Kg	☼		03/25/21 11:31	2
1,2-Dibromo-3-Chloropropane	<27		27	11	ug/Kg	☼		03/25/21 11:31	2
1,2-Dibromoethane	<11		11	4.1	ug/Kg	☼		03/25/21 11:31	2
1,3-Dichlorobenzene	<11		11	3.9	ug/Kg	☼		03/25/21 11:31	2
1,4-Dichlorobenzene	<11		11	4.1	ug/Kg	☼		03/25/21 11:31	2
1,2-Dichlorobenzene	<11		11	4.0	ug/Kg	☼		03/25/21 11:31	2
Dichlorodifluoromethane	<27		27	6.3	ug/Kg	☼		03/25/21 11:31	2
1,1-Dichloroethane	<11		11	3.6	ug/Kg	☼		03/25/21 11:31	2
1,2-Dichloroethane	<27		27	8.3	ug/Kg	☼		03/25/21 11:31	2
1,1-Dichloroethene	<11		11	3.7	ug/Kg	☼		03/25/21 11:31	2
1,2-Dichloropropane	<11		11	2.8	ug/Kg	☼		03/25/21 11:31	2
Ethylbenzene	<11		11	5.1	ug/Kg	☼		03/25/21 11:31	2
2-Hexanone	<27		27	8.3	ug/Kg	☼		03/25/21 11:31	2
Isopropylbenzene	<11		11	3.8	ug/Kg	☼		03/25/21 11:31	2
Methyl acetate	<130		130	35	ug/Kg	☼		03/25/21 11:31	2
Methylcyclohexane	<11		11	3.7	ug/Kg	☼		03/25/21 11:31	2
Methylene Chloride	<27		27	10	ug/Kg	☼		03/25/21 11:31	2
Methyl Ethyl Ketone	<27		27	12	ug/Kg	☼		03/25/21 11:31	2
methyl isobutyl ketone	<27		27	7.9	ug/Kg	☼		03/25/21 11:31	2
Methyl tert-butyl ether	<11		11	3.1	ug/Kg	☼		03/25/21 11:31	2
Styrene	<11		11	3.2	ug/Kg	☼		03/25/21 11:31	2
1,1,2,2-Tetrachloroethane	<11		11	3.4	ug/Kg	☼		03/25/21 11:31	2
Tetrachloroethene	<11		11	3.6	ug/Kg	☼		03/25/21 11:31	2
Toluene	<11		11	2.7	ug/Kg	☼		03/25/21 11:31	2
trans-1,2-Dichloroethene	<11		11	4.7	ug/Kg	☼		03/25/21 11:31	2
trans-1,3-Dichloropropene	<11		11	3.7	ug/Kg	☼		03/25/21 11:31	2
1,2,4-Trichlorobenzene	<11		11	3.8	ug/Kg	☼		03/25/21 11:31	2
1,1,1-Trichloroethane	<11		11	3.6	ug/Kg	☼		03/25/21 11:31	2
1,1,2-Trichloroethane	<11		11	4.6	ug/Kg	☼		03/25/21 11:31	2
Trichloroethene	<11		11	3.6	ug/Kg	☼		03/25/21 11:31	2
Trichlorofluoromethane	<27		27	11	ug/Kg	☼		03/25/21 11:31	2
1,1,2-Trichloro-1,2,2-trifluoroethane	<11		11	4.8	ug/Kg	☼		03/25/21 11:31	2
Vinyl chloride	<11		11	4.7	ug/Kg	☼		03/25/21 11:31	2
Xylenes, Total	<21		21	3.4	ug/Kg	☼		03/25/21 11:31	2

Client Sample ID: Inlet Channel Sediment
Date Collected: 03/11/21 08:40
Date Received: 03/16/21 13:38

Lab Sample ID: 500-196180-1
Matrix: Solid
Percent Solids: 37.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 134*		*03/25/21 11:31*	*2*
Toluene-d8 (Surr)	*99*		*75 - 124*		*03/25/21 11:31*	*2*
4-Bromofluorobenzene (Surr)	*106*		*75 - 131*		*03/25/21 11:31*	*2*
Dibromofluoromethane	*96*		*75 - 126*		*03/25/21 11:31*	*2*

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.020		0.020	0.010	mg/L			03/25/21 12:29	20
Carbon tetrachloride	<0.020		0.020	0.010	mg/L			03/25/21 12:29	20
Chlorobenzene	<0.020		0.020	0.010	mg/L			03/25/21 12:29	20
Chloroform	<0.040		0.040	0.020	mg/L			03/25/21 12:29	20
1,2-Dichloroethane	<0.020		0.020	0.010	mg/L			03/25/21 12:29	20
1,1-Dichloroethene	<0.020		0.020	0.010	mg/L			03/25/21 12:29	20
Methyl Ethyl Ketone	<0.10		0.10	0.050	mg/L			03/25/21 12:29	20
Tetrachloroethene	<0.020		0.020	0.010	mg/L			03/25/21 12:29	20
Trichloroethene	<0.020		0.020	0.010	mg/L			03/25/21 12:29	20
Vinyl chloride	<0.020		0.020	0.010	mg/L			03/25/21 12:29	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*75 - 126*		*03/25/21 12:29*	*20*
Toluene-d8 (Surr)	*99*		*75 - 120*		*03/25/21 12:29*	*20*
4-Bromofluorobenzene (Surr)	*98*		*72 - 124*		*03/25/21 12:29*	*20*
Dibromofluoromethane	*94*		*75 - 120*		*03/25/21 12:29*	*20*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<1300		1300	230	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Acenaphthylene	<1300		1300	170	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Acetophenone	<13000		13000	3200	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Anthracene	<1300		1300	220	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Atrazine	<13000		13000	3800	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Benzaldehyde	<53000		53000	13000	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Benzo[a]anthracene	<1300		1300	180	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Benzo[a]pyrene	<1300		1300	250	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Benzo[b]fluoranthene	<1300		1300	280	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Benzo[g,h,i]perylene	<1300		1300	420	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Benzo[k]fluoranthene	<1300		1300	380	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
1,1'-Biphenyl	<6500		6500	1600	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Bis(2-chloroethoxy)methane	<6500		6500	1300	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Bis(2-chloroethyl)ether	<6500		6500	2000	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Bis(2-ethylhexyl) phthalate	<6500		6500	2400	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
4-Bromophenyl phenyl ether	<6500		6500	1700	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Butyl benzyl phthalate	<6500		6500	2500	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Caprolactam	<13000		13000	3900	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Carbazole	<6500		6500	3300	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
4-Chloroaniline	<26000		26000	6100	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
4-Chloro-3-methylphenol	<13000		13000	4400	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
2-Chloronaphthalene	<6500		6500	1400	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
2-Chlorophenol	<6500		6500	2200	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
4-Chlorophenyl phenyl ether	<6500		6500	1500	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Chrysene	<1300		1300	350	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1

Client: ArcelorMittal USA Inc.
Project/Site: Inlet Channel Sediment

Job ID: 500-196180-1

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Date Collected: 03/11/21 08:40
Date Received: 03/16/21 13:38

Lab Sample ID: 500-196180-1
Matrix: Solid
Percent Solids: 37.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	<1300		1300	250	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Dibenzofuran	<6500		6500	1500	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
3,3'-Dichlorobenzidine	<6500		6500	1800	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
2,4-Dichlorophenol	<13000		13000	3100	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Diethyl phthalate	<6500		6500	2200	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
2,4-Dimethylphenol	<13000		13000	4900	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Dimethyl phthalate	<6500		6500	1700	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Di-n-butyl phthalate	<6500		6500	2000	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
4,6-Dinitro-2-methylphenol	<26000		26000	10000	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
2,4-Dinitrophenol	<26000		26000	23000	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
2,6-Dinitrotoluene	<6500		6500	2600	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
2,4-Dinitrotoluene	<6500		6500	2100	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Di-n-octyl phthalate	<6500		6500	2100	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Fluoranthene	<1300		1300	240	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Fluorene	<1300		1300	180	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Hexachlorobenzene	<2600		2600	300	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Hexachlorobutadiene	<6500		6500	2000	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Hexachlorocyclopentadiene	<26000		26000	7500	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Hexachloroethane	<6500		6500	2000	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Indeno[1,2,3-cd]pyrene	<1300		1300	340	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Isophorone	<6500		6500	1500	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
2-Methylnaphthalene	<2600		2600	240	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
2-Methylphenol	<6500		6500	2100	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
3 & 4 Methylphenol	<6500		6500	2200	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Naphthalene	<1300		1300	200	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
2-Nitroaniline	<6500		6500	1800	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
3-Nitroaniline	<13000		13000	4000	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
4-Nitroaniline	<13000		13000	5400	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Nitrobenzene	<1300		1300	320	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
2-Nitrophenol	<13000		13000	3100	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
4-Nitrophenol	<26000		26000	12000	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
N-Nitrosodi-n-propylamine	<2600		2600	1600	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
N-Nitrosodiphenylamine	<6500		6500	1500	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
2,2'-oxybis[1-chloropropane]	<6500		6500	1500	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Pentachlorophenol	<26000		26000	21000	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Phenanthrene	<1300		1300	180	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Phenol	<6500		6500	2900	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
Pyrene	<1300		1300	260	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
2,4,6-Trichlorophenol	<13000		13000	4500	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1
2,4,5-Trichlorophenol	<13000		13000	3000	ug/Kg	☼	03/24/21 08:05	03/25/21 23:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*86*		*31 - 166*	*03/24/21 08:05*	*03/25/21 23:50*	*1*
Phenol-d5 (Surr)	*71*		*30 - 153*	*03/24/21 08:05*	*03/25/21 23:50*	*1*
Nitrobenzene-d5 (Surr)	*60*		*37 - 147*	*03/24/21 08:05*	*03/25/21 23:50*	*1*
2-Fluorobiphenyl (Surr)	*72*		*43 - 145*	*03/24/21 08:05*	*03/25/21 23:50*	*1*
2,4,6-Tribromophenol (Surr)	*98*		*31 - 143*	*03/24/21 08:05*	*03/25/21 23:50*	*1*
Terphenyl-d14 (Surr)	*83*		*42 - 157*	*03/24/21 08:05*	*03/25/21 23:50*	*1*

Client Sample ID: Inlet Channel Sediment

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Lab Sample ID: 500-196180-1

Matrix: Solid
Percent Solids: 37.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<0.020		0.020	0.020	mg/L		03/25/21 18:42	03/26/21 15:55	1
3 & 4 Methylphenol	<0.020		0.020	0.020	mg/L		03/25/21 18:42	03/26/21 15:55	1
1,4-Dichlorobenzene	<0.020		0.020	0.020	mg/L		03/25/21 18:42	03/26/21 15:55	1
2,4-Dinitrotoluene	<0.010		0.010	0.010	mg/L		03/25/21 18:42	03/26/21 15:55	1
Hexachlorobenzene	<0.0050		0.0050	0.0050	mg/L		03/25/21 18:42	03/26/21 15:55	1
Hexachlorobutadiene	<0.050		0.050	0.050	mg/L		03/25/21 18:42	03/26/21 15:55	1
Hexachloroethane	<0.050		0.050	0.050	mg/L		03/25/21 18:42	03/26/21 15:55	1
Nitrobenzene	<0.010		0.010	0.010	mg/L		03/25/21 18:42	03/26/21 15:55	1
Pentachlorophenol	<0.20		0.20	0.20	mg/L		03/25/21 18:42	03/26/21 15:55	1
Pyridine	<0.20		0.20	0.20	mg/L		03/25/21 18:42	03/26/21 15:55	1
2,4,5-Trichlorophenol	<0.10		0.10	0.10	mg/L		03/25/21 18:42	03/26/21 15:55	1
2,4,6-Trichlorophenol	<0.050		0.050	0.050	mg/L		03/25/21 18:42	03/26/21 15:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*63*		*27 - 110*	*03/25/21 18:42*	*03/26/21 15:55*	*1*
Phenol-d5 (Surr)	*33*		*20 - 100*	*03/25/21 18:42*	*03/26/21 15:55*	*1*
Nitrobenzene-d5 (Surr)	*84*		*36 - 120*	*03/25/21 18:42*	*03/26/21 15:55*	*1*
2-Fluorobiphenyl	*93*		*34 - 110*	*03/25/21 18:42*	*03/26/21 15:55*	*1*
2,4,6-Tribromophenol (Surr)	*91*		*40 - 145*	*03/25/21 18:42*	*03/26/21 15:55*	*1*
Terphenyl-d14 (Surr)	*118*		*40 - 145*	*03/25/21 18:42*	*03/26/21 15:55*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**3600**	**B**	52	21	mg/Kg	☼	03/18/21 06:56	03/18/21 20:48	1
Antimony	**12**		5.2	1.0	mg/Kg	☼	03/18/21 06:56	03/18/21 20:48	1
Arsenic	**17**		2.6	0.89	mg/Kg	☼	03/18/21 06:56	03/19/21 21:42	1
Barium	**45**		2.6	0.30	mg/Kg	☼	03/18/21 06:56	03/19/21 21:42	1
Beryllium	**3.4**		1.0	0.24	mg/Kg	☼	03/18/21 06:56	03/18/21 20:48	1
Cadmium	**16**	**B**	0.52	0.093	mg/Kg	☼	03/18/21 06:56	03/18/21 20:48	1
Calcium	**56000**		52	8.8	mg/Kg	☼	03/18/21 06:56	03/18/21 20:48	1
Chromium	**200**		2.6	1.3	mg/Kg	☼	03/18/21 06:56	03/18/21 20:48	1
Cobalt	**6.0**		1.3	0.34	mg/Kg	☼	03/18/21 06:56	03/18/21 20:48	1
Copper	**240**		2.6	0.72	mg/Kg	☼	03/18/21 06:56	03/19/21 21:42	1
Iron	**320000**		260	130	mg/Kg	☼	03/18/21 06:56	03/19/21 21:45	5
Lead	**660**		6.5	3.0	mg/Kg	☼	03/18/21 06:56	03/19/21 21:45	5
Magnesium	**4100**	**B**	26	13	mg/Kg	☼	03/18/21 06:56	03/18/21 20:48	1
Manganese	**3900**	**B**	2.6	0.38	mg/Kg	☼	03/18/21 06:56	03/18/21 20:48	1
Nickel	**130**		13	3.8	mg/Kg	☼	03/18/21 06:56	03/19/21 21:45	5
Potassium	**620**	**B**	130	46	mg/Kg	☼	03/18/21 06:56	03/19/21 21:42	1
Selenium	**7.4**		2.6	1.5	mg/Kg	☼	03/18/21 06:56	03/18/21 20:48	1
Silver	**5.8**		1.3	0.33	mg/Kg	☼	03/18/21 06:56	03/18/21 20:48	1
Sodium	**410**		260	38	mg/Kg	☼	03/18/21 06:56	03/18/21 20:48	1
Thallium	<13		13	6.5	mg/Kg	☼	03/18/21 06:56	03/19/21 21:45	5
Vanadium	**78**		6.5	1.5	mg/Kg	☼	03/18/21 06:56	03/19/21 21:45	5
Zinc	**2900**		5.2	2.3	mg/Kg	☼	03/18/21 06:56	03/18/21 20:48	1

Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.50		0.50	0.10	mg/L		03/25/21 16:52	03/26/21 11:56	10
Barium	<5.0		5.0	0.50	mg/L		03/25/21 16:52	03/26/21 11:56	10

Client: ArcelorMittal USA Inc.
Project/Site: Inlet Channel Sediment

Job ID: 500-196180-1

Client Sample ID: Inlet Channel Sediment
Date Collected: 03/11/21 08:40
Date Received: 03/16/21 13:38

Lab Sample ID: 500-196180-1
Matrix: Solid
Percent Solids: 37.5

Method: 6010C - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.050		0.050	0.020	mg/L		03/25/21 16:52	03/26/21 11:56	10
Chromium	<0.25		0.25	0.10	mg/L		03/25/21 16:52	03/26/21 11:56	10
Lead	<0.50		0.50	0.075	mg/L		03/25/21 16:52	03/26/21 11:56	10
Selenium	<0.50		0.50	0.20	mg/L		03/25/21 16:52	03/26/21 11:56	10
Silver	<0.25		0.25	0.10	mg/L		03/25/21 16:52	03/26/21 11:56	10

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		03/29/21 09:50	03/30/21 09:55	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.29**		0.044	0.015	mg/Kg	☼	03/25/21 10:32	03/26/21 10:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.68**		0.67	0.34	mg/Kg	☼	03/19/21 13:05	03/19/21 17:16	1
pH	**7.5**		0.2	0.2	SU			03/17/21 16:31	1
HEM (Oil & Grease)	**49000**		1200	600	mg/Kg	☼	03/24/21 10:56	03/25/21 10:31	1

Definitions/Glossary

Client: ArcelorMittal USA Inc.
Job ID: 500-196180-1
Project/Site: Inlet Channel Sediment

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

GC/MS VOA

Leach Batch: 590172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	TCLP	Solid	1311	
LB 500-590172/1-A	Method Blank	TCLP	Solid	1311	

Analysis Batch: 590270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	Total/NA	Solid	8260B	
MB 500-590270/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-590270/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-590270/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

Analysis Batch: 590282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	TCLP	Solid	8260B	590172
LB 500-590172/1-A	Method Blank	TCLP	Solid	8260B	590172
MB 500-590282/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-590282/5	Lab Control Sample	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 590082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	Total/NA	Solid	3541	
MB 500-590082/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-590082/2-A	Lab Control Sample	Total/NA	Solid	3541	

Leach Batch: 590170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	TCLP	Solid	1311	
LB2 500-590170/1-C	Method Blank	TCLP	Solid	1311	

Analysis Batch: 590442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	Total/NA	Solid	8270D	590082
MB 500-590082/1-A	Method Blank	Total/NA	Solid	8270D	590082
LCS 500-590082/2-A	Lab Control Sample	Total/NA	Solid	8270D	590082

Prep Batch: 590448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	TCLP	Solid	3510C	590170
LB2 500-590170/1-C	Method Blank	TCLP	Solid	3510C	590170
MB 500-590448/1-A	Method Blank	Total/NA	Solid	3510C	
LCS 500-590448/2-A	Lab Control Sample	Total/NA	Solid	3510C	

Analysis Batch: 590523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	TCLP	Solid	8270D	590448
LB2 500-590170/1-C	Method Blank	TCLP	Solid	8270D	590448
MB 500-590448/1-A	Method Blank	Total/NA	Solid	8270D	590448
LCS 500-590448/2-A	Lab Control Sample	Total/NA	Solid	8270D	590448

Metals

Prep Batch: 589142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	Total/NA	Solid	3050B	
MB 500-589142/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-589142/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 589384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	Total/NA	Solid	6010B	589142
MB 500-589142/1-A	Method Blank	Total/NA	Solid	6010B	589142
LCS 500-589142/2-A	Lab Control Sample	Total/NA	Solid	6010B	589142

Analysis Batch: 589573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	Total/NA	Solid	6010B	589142
500-196180-1	Inlet Channel Sediment	Total/NA	Solid	6010B	589142
MB 500-589142/1-A	Method Blank	Total/NA	Solid	6010B	589142
LCS 500-589142/2-A	Lab Control Sample	Total/NA	Solid	6010B	589142

Leach Batch: 590170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	TCLP	Solid	1311	
LB2 500-590170/1-B	Method Blank	TCLP	Solid	1311	
LB2 500-590170/2-B	Method Blank	TCLP	Solid	1311	

Prep Batch: 590363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	Total/NA	Solid	7471B	
MB 500-590363/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-590363/13-A	Lab Control Sample	Total/NA	Solid	7471B	

Prep Batch: 590423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	TCLP	Solid	3010A	590170
LB2 500-590170/1-B	Method Blank	TCLP	Solid	3010A	590170
LCS 500-590423/18-A	Lab Control Sample	Total/NA	Solid	3010A	

Analysis Batch: 590577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	TCLP	Solid	6010C	590423
LB2 500-590170/1-B	Method Blank	TCLP	Solid	6010C	590423
LCS 500-590423/18-A	Lab Control Sample	Total/NA	Solid	6010C	590423

Analysis Batch: 590583

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	Total/NA	Solid	7471B	590363
MB 500-590363/12-A	Method Blank	Total/NA	Solid	7471B	590363
LCS 500-590363/13-A	Lab Control Sample	Total/NA	Solid	7471B	590363

Prep Batch: 590763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	TCLP	Solid	7470A	590170
LB2 500-590170/2-B	Method Blank	TCLP	Solid	7470A	590170

Metals (Continued)

Prep Batch: 590763 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-590763/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-590763/36-A	Lab Control Sample	Total/NA	Solid	7470A	

Analysis Batch: 590992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	TCLP	Solid	7470A	590763
LB2 500-590170/2-B	Method Blank	TCLP	Solid	7470A	590763
MB 500-590763/12-A	Method Blank	Total/NA	Solid	7470A	590763
LCS 500-590763/36-A	Lab Control Sample	Total/NA	Solid	7470A	590763

General Chemistry

Analysis Batch: 588986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	Total/NA	Solid	Moisture	

Analysis Batch: 589054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	Total/NA	Solid	9045D	
LCS 500-589054/5	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 500-589054/6	Lab Control Sample Dup	Total/NA	Solid	9045D	
500-196180-1 DU	Inlet Channel Sediment	Total/NA	Solid	9045D	

Prep Batch: 589489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	Total/NA	Solid	9010C	
MB 500-589489/1-A	Method Blank	Total/NA	Solid	9010C	
HLCS 500-589489/2-A	Lab Control Sample	Total/NA	Solid	9010C	
LCS 500-589489/3-A	Lab Control Sample	Total/NA	Solid	9010C	
LLCS 500-589489/4-A	Lab Control Sample	Total/NA	Solid	9010C	

Analysis Batch: 589529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	Total/NA	Solid	9012B	589489
MB 500-589489/1-A	Method Blank	Total/NA	Solid	9012B	589489
HLCS 500-589489/2-A	Lab Control Sample	Total/NA	Solid	9012B	589489
LCS 500-589489/3-A	Lab Control Sample	Total/NA	Solid	9012B	589489
LLCS 500-589489/4-A	Lab Control Sample	Total/NA	Solid	9012B	589489

Prep Batch: 590142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	Total/NA	Solid	9071B	
MB 500-590142/1-A	Method Blank	Total/NA	Solid	9071B	
LCS 500-590142/2-A	Lab Control Sample	Total/NA	Solid	9071B	

Analysis Batch: 590361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-196180-1	Inlet Channel Sediment	Total/NA	Solid	9071B	590142
MB 500-590142/1-A	Method Blank	Total/NA	Solid	9071B	590142
LCS 500-590142/2-A	Lab Control Sample	Total/NA	Solid	9071B	590142

Surrogate Summary

Client: ArcelorMittal USA Inc.
Project/Site: Inlet Channel Sediment

Job ID: 500-196180-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	TOL	BFB	DBFM
Lab Sample ID	Client Sample ID	(70-134)	(75-124)	(75-131)	(75-126)
500-196180-1	Inlet Channel Sediment	102	99	106	96
LCS 500-590270/4	Lab Control Sample	100	94	92	98
LCSD 500-590270/5	Lab Control Sample Dup	104	96	92	98
MB 500-590270/7	Method Blank	106	92	90	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	TOL	BFB	DBFM
Lab Sample ID	Client Sample ID	(75-126)	(75-120)	(72-124)	(75-120)
LCS 500-590282/5	Lab Control Sample	97	97	93	97
MB 500-590282/7	Method Blank	101	96	95	95

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid — **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	TOL	BFB	DBFM
Lab Sample ID	Client Sample ID	(75-126)	(75-120)	(72-124)	(75-120)
500-196180-1	Inlet Channel Sediment	101	99	98	94
LB 500-590172/1-A	Method Blank	99	99	95	93

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane

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

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		2FP	PHL	NBZ	FBP	TBP	TPHL
Lab Sample ID	Client Sample ID	(31-166)	(30-153)	(37-147)	(43-145)	(31-143)	(42-157)
500-196180-1	Inlet Channel Sediment	86	71	60	72	98	83
LCS 500-590082/2-A	Lab Control Sample	111	92	84	94	92	79
MB 500-590082/1-A	Method Blank	102	87	67	78	49	82

Surrogate Legend

2FP = 2-Fluorophenol (Surr)

Surrogate Summary

Client: ArcelorMittal USA Inc.
Project/Site: Inlet Channel Sediment

Job ID: 500-196180-1

PHL = Phenol-d5 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
TPHL = Terphenyl-d14 (Surr)

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		2FP	PHL	NBZ	FBP	TBP	TPHL
Lab Sample ID	Client Sample ID	(27-110)	(20-100)	(36-120)	(34-110)	(40-145)	(40-145)
LCS 500-590448/2-A	Lab Control Sample	60	38	77	87	89	102
MB 500-590448/1-A	Method Blank	56	33	82	90	86	115

Surrogate Legend

2FP = 2-Fluorophenol (Surr)
PHL = Phenol-d5 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol (Surr)
TPHL = Terphenyl-d14 (Surr)

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

Matrix: Solid **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)					
		2FP	PHL	NBZ	FBP	TBP	TPHL
Lab Sample ID	Client Sample ID	(27-110)	(20-100)	(36-120)	(34-110)	(40-145)	(40-145)
500-196180-1	Inlet Channel Sediment	63	33	84	93	91	118
LB2 500-590170/1-C	Method Blank	59	30	81	88	87	114

Surrogate Legend

2FP = 2-Fluorophenol (Surr)
PHL = Phenol-d5 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol (Surr)
TPHL = Terphenyl-d14 (Surr)

Client: ArcelorMittal USA Inc.
Project/Site: Inlet Channel Sediment

Job ID: 500-196180-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-590270/7
Matrix: Solid
Analysis Batch: 590270

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<20		20	8.7	ug/Kg			03/25/21 11:05	1
Benzene	<2.0		2.0	0.51	ug/Kg			03/25/21 11:05	1
Bromodichloromethane	<2.0		2.0	0.41	ug/Kg			03/25/21 11:05	1
Bromoform	<2.0		2.0	0.58	ug/Kg			03/25/21 11:05	1
Bromomethane	<5.0		5.0	1.9	ug/Kg			03/25/21 11:05	1
Carbon disulfide	<5.0		5.0	1.0	ug/Kg			03/25/21 11:05	1
Carbon tetrachloride	<2.0		2.0	0.58	ug/Kg			03/25/21 11:05	1
Chlorobenzene	<2.0		2.0	0.74	ug/Kg			03/25/21 11:05	1
Chloroethane	<5.0		5.0	1.5	ug/Kg			03/25/21 11:05	1
Chloroform	<2.0		2.0	0.69	ug/Kg			03/25/21 11:05	1
Chloromethane	<5.0		5.0	2.0	ug/Kg			03/25/21 11:05	1
cis-1,2-Dichloroethene	<2.0		2.0	0.56	ug/Kg			03/25/21 11:05	1
cis-1,3-Dichloropropene	<2.0		2.0	0.60	ug/Kg			03/25/21 11:05	1
Cyclohexane	<2.0		2.0	0.77	ug/Kg			03/25/21 11:05	1
Dibromochloromethane	<2.0		2.0	0.65	ug/Kg			03/25/21 11:05	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0	2.0	ug/Kg			03/25/21 11:05	1
1,2-Dibromoethane	<2.0		2.0	0.76	ug/Kg			03/25/21 11:05	1
1,3-Dichlorobenzene	<2.0		2.0	0.73	ug/Kg			03/25/21 11:05	1
1,4-Dichlorobenzene	<2.0		2.0	0.77	ug/Kg			03/25/21 11:05	1
1,2-Dichlorobenzene	<2.0		2.0	0.74	ug/Kg			03/25/21 11:05	1
Dichlorodifluoromethane	<5.0		5.0	1.2	ug/Kg			03/25/21 11:05	1
1,1-Dichloroethane	<2.0		2.0	0.69	ug/Kg			03/25/21 11:05	1
1,2-Dichloroethane	<5.0		5.0	1.6	ug/Kg			03/25/21 11:05	1
1,1-Dichloroethene	<2.0		2.0	0.69	ug/Kg			03/25/21 11:05	1
1,2-Dichloropropane	<2.0		2.0	0.52	ug/Kg			03/25/21 11:05	1
Ethylbenzene	<2.0		2.0	0.96	ug/Kg			03/25/21 11:05	1
2-Hexanone	<5.0		5.0	1.6	ug/Kg			03/25/21 11:05	1
Isopropylbenzene	<2.0		2.0	0.72	ug/Kg			03/25/21 11:05	1
Methyl acetate	<25		25	6.6	ug/Kg			03/25/21 11:05	1
Methylcyclohexane	<2.0		2.0	0.69	ug/Kg			03/25/21 11:05	1
Methylene Chloride	<5.0		5.0	2.0	ug/Kg			03/25/21 11:05	1
Methyl Ethyl Ketone	<5.0		5.0	2.2	ug/Kg			03/25/21 11:05	1
methyl isobutyl ketone	<5.0		5.0	1.5	ug/Kg			03/25/21 11:05	1
Methyl tert-butyl ether	<2.0		2.0	0.59	ug/Kg			03/25/21 11:05	1
Styrene	<2.0		2.0	0.60	ug/Kg			03/25/21 11:05	1
1,1,2,2-Tetrachloroethane	<2.0		2.0	0.64	ug/Kg			03/25/21 11:05	1
Tetrachloroethene	<2.0		2.0	0.68	ug/Kg			03/25/21 11:05	1
Toluene	<2.0		2.0	0.51	ug/Kg			03/25/21 11:05	1
trans-1,2-Dichloroethene	<2.0		2.0	0.89	ug/Kg			03/25/21 11:05	1
trans-1,3-Dichloropropene	<2.0		2.0	0.70	ug/Kg			03/25/21 11:05	1
1,2,4-Trichlorobenzene	<2.0		2.0	0.72	ug/Kg			03/25/21 11:05	1
1,1,1-Trichloroethane	<2.0		2.0	0.67	ug/Kg			03/25/21 11:05	1
1,1,2-Trichloroethane	<2.0		2.0	0.86	ug/Kg			03/25/21 11:05	1
Trichloroethene	<2.0		2.0	0.68	ug/Kg			03/25/21 11:05	1
Trichlorofluoromethane	<5.0		5.0	2.0	ug/Kg			03/25/21 11:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<2.0		2.0	0.90	ug/Kg			03/25/21 11:05	1
Vinyl chloride	<2.0		2.0	0.89	ug/Kg			03/25/21 11:05	1
Xylenes, Total	<4.0		4.0	0.64	ug/Kg			03/25/21 11:05	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-590270/7
Matrix: Solid
Analysis Batch: 590270

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 134*		*03/25/21 11:05*	*1*
Toluene-d8 (Surr)	*92*		*75 - 124*		*03/25/21 11:05*	*1*
4-Bromofluorobenzene (Surr)	*90*		*75 - 131*		*03/25/21 11:05*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*03/25/21 11:05*	*1*

Lab Sample ID: LCS 500-590270/4
Matrix: Solid
Analysis Batch: 590270

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	50.0	48.2		ug/Kg		96	40 - 150
Benzene	50.0	48.2		ug/Kg		96	70 - 125
Bromodichloromethane	50.0	53.8		ug/Kg		108	67 - 129
Bromoform	50.0	56.3		ug/Kg		113	68 - 136
Bromomethane	50.0	50.8		ug/Kg		102	70 - 130
Carbon disulfide	50.0	43.3		ug/Kg		87	70 - 129
Carbon tetrachloride	50.0	49.5		ug/Kg		99	75 - 125
Chlorobenzene	50.0	49.8		ug/Kg		100	50 - 150
Chloroethane	50.0	53.0		ug/Kg		106	75 - 125
Chloroform	50.0	50.5		ug/Kg		101	57 - 135
Chloromethane	50.0	45.6		ug/Kg		91	70 - 125
cis-1,2-Dichloroethene	50.0	45.6		ug/Kg		91	70 - 125
cis-1,3-Dichloropropene	50.0	52.2		ug/Kg		104	70 - 125
Cyclohexane	50.0	42.6		ug/Kg		85	70 - 125
Dibromochloromethane	50.0	54.9		ug/Kg		110	69 - 125
1,2-Dibromo-3-Chloropropane	50.0	64.8		ug/Kg		130	60 - 136
1,2-Dibromoethane	50.0	55.8		ug/Kg		112	70 - 125
1,3-Dichlorobenzene	50.0	50.8		ug/Kg		102	70 - 125
1,4-Dichlorobenzene	50.0	51.2		ug/Kg		102	70 - 125
1,2-Dichlorobenzene	50.0	51.6		ug/Kg		103	70 - 125
Dichlorodifluoromethane	50.0	46.6		ug/Kg		93	75 - 125
1,1-Dichloroethane	50.0	46.3		ug/Kg		93	70 - 125
1,2-Dichloroethane	50.0	52.5		ug/Kg		105	70 - 130
1,1-Dichloroethene	50.0	43.1		ug/Kg		86	70 - 120
1,2-Dichloropropane	50.0	49.1		ug/Kg		98	70 - 125
Ethylbenzene	50.0	52.8		ug/Kg		106	61 - 136
2-Hexanone	50.0	50.0		ug/Kg		100	48 - 146
Isopropylbenzene	50.0	51.0		ug/Kg		102	70 - 125
Methyl acetate	100	94.4		ug/Kg		94	70 - 125
Methylcyclohexane	50.0	46.6		ug/Kg		93	70 - 125
Methylene Chloride	50.0	44.5		ug/Kg		89	70 - 126
Methyl Ethyl Ketone	50.0	46.5		ug/Kg		93	47 - 138
methyl isobutyl ketone	50.0	47.1		ug/Kg		94	50 - 148
Methyl tert-butyl ether	50.0	44.0		ug/Kg		88	50 - 140
Styrene	50.0	51.5		ug/Kg		103	70 - 125
1,1,2,2-Tetrachloroethane	50.0	55.1		ug/Kg		110	70 - 122
Tetrachloroethene	50.0	52.9		ug/Kg		106	70 - 124
Toluene	50.0	49.3		ug/Kg		99	70 - 125

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-590270/4
Matrix: Solid
Analysis Batch: 590270

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,2-Dichloroethene	50.0	44.6		ug/Kg		89	70 - 125
trans-1,3-Dichloropropene	50.0	51.8		ug/Kg		104	70 - 125
1,2,4-Trichlorobenzene	50.0	61.3		ug/Kg		123	65 - 128
1,1,1-Trichloroethane	50.0	47.6		ug/Kg		95	70 - 128
1,1,2-Trichloroethane	50.0	54.4		ug/Kg		109	70 - 125
Trichloroethene	50.0	50.2		ug/Kg		100	70 - 125
Trichlorofluoromethane	50.0	53.4		ug/Kg		107	70 - 134
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	47.7		ug/Kg		95	70 - 128
Vinyl chloride	50.0	41.5		ug/Kg		83	70 - 125
Xylenes, Total	100	95.7		ug/Kg		96	53 - 147

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 134*
Toluene-d8 (Surr)	*94*		*75 - 124*
4-Bromofluorobenzene (Surr)	*92*		*75 - 131*
Dibromofluoromethane	*98*		*75 - 126*

Lab Sample ID: LCSD 500-590270/5
Matrix: Solid
Analysis Batch: 590270

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
Acetone	50.0	45.3		ug/Kg		91	40 - 150	6	30
Benzene	50.0	47.7		ug/Kg		95	70 - 125	1	30
Bromodichloromethane	50.0	52.6		ug/Kg		105	67 - 129	2	30
Bromoform	50.0	58.2		ug/Kg		116	68 - 136	3	30
Bromomethane	50.0	50.1		ug/Kg		100	70 - 130	1	30
Carbon disulfide	50.0	43.2		ug/Kg		86	70 - 129	0	30
Carbon tetrachloride	50.0	50.0		ug/Kg		100	75 - 125	1	30
Chlorobenzene	50.0	49.7		ug/Kg		99	50 - 150	0	30
Chloroethane	50.0	54.0		ug/Kg		108	75 - 125	2	30
Chloroform	50.0	50.2		ug/Kg		100	57 - 135	1	30
Chloromethane	50.0	46.5		ug/Kg		93	70 - 125	2	30
cis-1,2-Dichloroethene	50.0	45.9		ug/Kg		92	70 - 125	1	30
cis-1,3-Dichloropropene	50.0	53.0		ug/Kg		106	70 - 125	1	30
Cyclohexane	50.0	41.5		ug/Kg		83	70 - 125	3	30
Dibromochloromethane	50.0	56.6		ug/Kg		113	69 - 125	3	30
1,2-Dibromo-3-Chloropropane	50.0	61.4		ug/Kg		123	60 - 136	5	30
1,2-Dibromoethane	50.0	56.3		ug/Kg		113	70 - 125	1	30
1,3-Dichlorobenzene	50.0	50.4		ug/Kg		101	70 - 125	1	30
1,4-Dichlorobenzene	50.0	50.8		ug/Kg		102	70 - 125	1	30
1,2-Dichlorobenzene	50.0	51.9		ug/Kg		104	70 - 125	1	30
Dichlorodifluoromethane	50.0	45.8		ug/Kg		92	75 - 125	2	30
1,1-Dichloroethane	50.0	46.1		ug/Kg		92	70 - 125	0	30
1,2-Dichloroethane	50.0	52.2		ug/Kg		104	70 - 130	1	30
1,1-Dichloroethene	50.0	42.9		ug/Kg		86	70 - 120	0	30
1,2-Dichloropropane	50.0	49.3		ug/Kg		99	70 - 125	0	30
Ethylbenzene	50.0	51.6		ug/Kg		103	61 - 136	2	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 500-590270/5
Matrix: Solid
Analysis Batch: 590270

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
2-Hexanone	50.0	51.9		ug/Kg		104	48 - 146	4	30
Isopropylbenzene	50.0	50.7		ug/Kg		101	70 - 125	1	30
Methyl acetate	100	93.0		ug/Kg		93	70 - 125	1	30
Methylcyclohexane	50.0	45.7		ug/Kg		91	70 - 125	2	30
Methylene Chloride	50.0	45.2		ug/Kg		90	70 - 126	2	30
Methyl Ethyl Ketone	50.0	46.9		ug/Kg		94	47 - 138	1	30
methyl isobutyl ketone	50.0	49.0		ug/Kg		98	50 - 148	4	30
Methyl tert-butyl ether	50.0	44.6		ug/Kg		89	50 - 140	1	30
Styrene	50.0	51.3		ug/Kg		103	70 - 125	0	30
1,1,2,2-Tetrachloroethane	50.0	53.5		ug/Kg		107	70 - 122	3	30
Tetrachloroethene	50.0	53.0		ug/Kg		106	70 - 124	0	30
Toluene	50.0	49.2		ug/Kg		98	70 - 125	0	30
trans-1,2-Dichloroethene	50.0	44.1		ug/Kg		88	70 - 125	1	30
trans-1,3-Dichloropropene	50.0	52.8		ug/Kg		106	70 - 125	2	30
1,2,4-Trichlorobenzene	50.0	60.5		ug/Kg		121	65 - 128	1	30
1,1,1-Trichloroethane	50.0	47.7		ug/Kg		95	70 - 128	0	30
1,1,2-Trichloroethane	50.0	54.0		ug/Kg		108	70 - 125	1	30
Trichloroethene	50.0	49.1		ug/Kg		98	70 - 125	2	30
Trichlorofluoromethane	50.0	53.3		ug/Kg		107	70 - 134	0	30
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	47.1		ug/Kg		94	70 - 128	1	30
Vinyl chloride	50.0	41.6		ug/Kg		83	70 - 125	0	30
Xylenes, Total	100	95.6		ug/Kg		96	53 - 147	0	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 134*
Toluene-d8 (Surr)	*96*		*75 - 124*
4-Bromofluorobenzene (Surr)	*92*		*75 - 131*
Dibromofluoromethane	*98*		*75 - 126*

Lab Sample ID: MB 500-590282/7
Matrix: Solid
Analysis Batch: 590282

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00050	mg/L			03/25/21 11:37	1
Carbon tetrachloride	<0.0010		0.0010	0.00050	mg/L			03/25/21 11:37	1
Chlorobenzene	<0.0010		0.0010	0.00050	mg/L			03/25/21 11:37	1
Chloroform	<0.0020		0.0020	0.0010	mg/L			03/25/21 11:37	1
1,2-Dichloroethane	<0.0010		0.0010	0.00050	mg/L			03/25/21 11:37	1
1,1-Dichloroethene	<0.0010		0.0010	0.00050	mg/L			03/25/21 11:37	1
Methyl Ethyl Ketone	<0.0050		0.0050	0.0025	mg/L			03/25/21 11:37	1
Tetrachloroethene	<0.0010		0.0010	0.00050	mg/L			03/25/21 11:37	1
Trichloroethene	<0.0010		0.0010	0.00050	mg/L			03/25/21 11:37	1
Vinyl chloride	<0.0010		0.0010	0.00050	mg/L			03/25/21 11:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*75 - 126*		*03/25/21 11:37*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-590282/7
Matrix: Solid
Analysis Batch: 590282

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*96*		*75 - 120*		*03/25/21 11:37*	*1*
4-Bromofluorobenzene (Surr)	*95*		*72 - 124*		*03/25/21 11:37*	*1*
Dibromofluoromethane	*95*		*75 - 120*		*03/25/21 11:37*	*1*

Lab Sample ID: LCS 500-590282/5
Matrix: Solid
Analysis Batch: 590282

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.0483		mg/L		97	70 - 120
Carbon tetrachloride	0.0500	0.0465		mg/L		93	59 - 133
Chlorobenzene	0.0500	0.0474		mg/L		95	70 - 120
Chloroform	0.0500	0.0446		mg/L		89	70 - 120
1,2-Dichloroethane	0.0500	0.0465		mg/L		93	68 - 127
1,1-Dichloroethene	0.0500	0.0476		mg/L		95	67 - 122
Methyl Ethyl Ketone	0.0500	0.0442		mg/L		88	46 - 144
Tetrachloroethene	0.0500	0.0485		mg/L		97	70 - 128
Trichloroethene	0.0500	0.0494		mg/L		99	70 - 125
Vinyl chloride	0.0500	0.0437		mg/L		87	64 - 126

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*97*		*75 - 126*
Toluene-d8 (Surr)	*97*		*75 - 120*
4-Bromofluorobenzene (Surr)	*93*		*72 - 124*
Dibromofluoromethane	*97*		*75 - 120*

Lab Sample ID: LB 500-590172/1-A
Matrix: Solid
Analysis Batch: 590282

Client Sample ID: Method Blank
Prep Type: TCLP

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.020		0.020	0.010	mg/L			03/25/21 12:03	20
Carbon tetrachloride	<0.020		0.020	0.010	mg/L			03/25/21 12:03	20
Chlorobenzene	<0.020		0.020	0.010	mg/L			03/25/21 12:03	20
Chloroform	<0.040		0.040	0.020	mg/L			03/25/21 12:03	20
1,2-Dichloroethane	<0.020		0.020	0.010	mg/L			03/25/21 12:03	20
1,1-Dichloroethene	<0.020		0.020	0.010	mg/L			03/25/21 12:03	20
Methyl Ethyl Ketone	<0.10		0.10	0.050	mg/L			03/25/21 12:03	20
Tetrachloroethene	<0.020		0.020	0.010	mg/L			03/25/21 12:03	20
Trichloroethene	<0.020		0.020	0.010	mg/L			03/25/21 12:03	20
Vinyl chloride	<0.020		0.020	0.010	mg/L			03/25/21 12:03	20

Surrogate	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*99*		*75 - 126*		*03/25/21 12:03*	*20*
Toluene-d8 (Surr)	*99*		*75 - 120*		*03/25/21 12:03*	*20*
4-Bromofluorobenzene (Surr)	*95*		*72 - 124*		*03/25/21 12:03*	*20*
Dibromofluoromethane	*93*		*75 - 120*		*03/25/21 12:03*	*20*

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

Lab Sample ID: MB 500-590082/1-A
Matrix: Solid
Analysis Batch: 590442

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 590082

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<33		33	6.0	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Acenaphthylene	<33		33	4.4	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Acetophenone	<330		330	83	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Anthracene	<33		33	5.6	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Atrazine	<330		330	97	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Benzaldehyde	<1300		1300	330	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Benzo[a]anthracene	<33		33	4.5	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Benzo[a]pyrene	<33		33	6.4	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Benzo[b]fluoranthene	<33		33	7.2	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Benzo[g,h,i]perylene	<33		33	11	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Benzo[k]fluoranthene	<33		33	9.8	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
1,1'-Biphenyl	<170		170	40	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Bis(2-chloroethoxy)methane	<170		170	34	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Bis(2-chloroethyl)ether	<170		170	50	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Bis(2-ethylhexyl) phthalate	<170		170	61	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
4-Bromophenyl phenyl ether	<170		170	44	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Butyl benzyl phthalate	<170		170	63	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Caprolactam	<330		330	100	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Carbazole	<170		170	83	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
4-Chloroaniline	<670		670	160	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
4-Chloro-3-methylphenol	<330		330	110	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
2-Chloronaphthalene	<170		170	37	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
2-Chlorophenol	<170		170	57	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
4-Chlorophenyl phenyl ether	<170		170	39	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Chrysene	<33		33	9.1	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Dibenz(a,h)anthracene	<33		33	6.4	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Dibenzofuran	<170		170	39	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
3,3'-Dichlorobenzidine	<170		170	47	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
2,4-Dichlorophenol	<330		330	79	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Diethyl phthalate	<170		170	56	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
2,4-Dimethylphenol	<330		330	130	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Dimethyl phthalate	<170		170	43	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Di-n-butyl phthalate	<170		170	51	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
4,6-Dinitro-2-methylphenol	<670		670	270	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
2,4-Dinitrophenol	<670		670	590	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
2,6-Dinitrotoluene	<170		170	65	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
2,4-Dinitrotoluene	<170		170	53	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Di-n-octyl phthalate	<170		170	54	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Fluoranthene	<33		33	6.2	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Fluorene	<33		33	4.7	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Hexachlorobenzene	<67		67	7.7	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Hexachlorobutadiene	<170		170	52	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Hexachlorocyclopentadiene	<670		670	190	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Hexachloroethane	<170		170	51	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Indeno[1,2,3-cd]pyrene	<33		33	8.6	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Isophorone	<170		170	37	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
2-Methylnaphthalene	<67		67	6.1	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
2-Methylphenol	<170		170	53	ug/Kg		03/24/21 08:05	03/25/21 21:32	1

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

Lab Sample ID: MB 500-590082/1-A
Matrix: Solid
Analysis Batch: 590442

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 590082

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	<170		170	55	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Naphthalene	<33		33	5.1	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
2-Nitroaniline	<170		170	45	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
3-Nitroaniline	<330		330	100	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
4-Nitroaniline	<330		330	140	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Nitrobenzene	<33		33	8.3	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
2-Nitrophenol	<330		330	79	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
4-Nitrophenol	<670		670	320	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
N-Nitrosodi-n-propylamine	<67		67	41	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
N-Nitrosodiphenylamine	<170		170	39	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
2,2'-oxybis[1-chloropropane]	<170		170	39	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Pentachlorophenol	<670		670	530	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Phenanthrene	<33		33	4.6	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Phenol	<170		170	74	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
Pyrene	<33		33	6.6	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
2,4,6-Trichlorophenol	<330		330	110	ug/Kg		03/24/21 08:05	03/25/21 21:32	1
2,4,5-Trichlorophenol	<330		330	76	ug/Kg		03/24/21 08:05	03/25/21 21:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*102*		*31 - 166*	*03/24/21 08:05*	*03/25/21 21:32*	*1*
Phenol-d5 (Surr)	*87*		*30 - 153*	*03/24/21 08:05*	*03/25/21 21:32*	*1*
Nitrobenzene-d5 (Surr)	*67*		*37 - 147*	*03/24/21 08:05*	*03/25/21 21:32*	*1*
2-Fluorobiphenyl (Surr)	*78*		*43 - 145*	*03/24/21 08:05*	*03/25/21 21:32*	*1*
2,4,6-Tribromophenol (Surr)	*49*		*31 - 143*	*03/24/21 08:05*	*03/25/21 21:32*	*1*
Terphenyl-d14 (Surr)	*82*		*42 - 157*	*03/24/21 08:05*	*03/25/21 21:32*	*1*

Lab Sample ID: LCS 500-590082/2-A
Matrix: Solid
Analysis Batch: 590442

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 590082

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	1330	1180		ug/Kg		89	65 - 124
Acenaphthylene	1330	1180		ug/Kg		89	68 - 120
Acetophenone	1330	1090		ug/Kg		82	55 - 110
Anthracene	1330	1230		ug/Kg		92	70 - 114
Atrazine	1330	1280		ug/Kg		96	54 - 118
Benzo[a]anthracene	1330	1180		ug/Kg		88	67 - 122
Benzo[a]pyrene	1330	1240		ug/Kg		93	65 - 133
Benzo[b]fluoranthene	1330	1270		ug/Kg		95	69 - 129
Benzo[g,h,i]perylene	1330	1340		ug/Kg		101	72 - 131
Benzo[k]fluoranthene	1330	1180		ug/Kg		88	68 - 127
1,1'-Biphenyl	1330	1170		ug/Kg		88	68 - 116
Bis(2-chloroethoxy)methane	1330	1080		ug/Kg		81	60 - 112
Bis(2-chloroethyl)ether	1330	1020		ug/Kg		77	55 - 111
Bis(2-ethylhexyl) phthalate	1330	1140		ug/Kg		85	72 - 131
4-Bromophenyl phenyl ether	1330	1170		ug/Kg		88	68 - 118
Butyl benzyl phthalate	1330	1110		ug/Kg		83	71 - 129
Caprolactam	1330	1310		ug/Kg		98	37 - 143

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

Lab Sample ID: LCS 500-590082/2-A
Matrix: Solid
Analysis Batch: 590442

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 590082

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbazole	1330	1450		ug/Kg		109	65 - 142
4-Chloroaniline	1330	1090		ug/Kg		82	30 - 150
4-Chloro-3-methylphenol	1330	1350		ug/Kg		102	65 - 122
2-Chloronaphthalene	1330	1240		ug/Kg		93	69 - 114
2-Chlorophenol	1330	1260		ug/Kg		95	64 - 110
4-Chlorophenyl phenyl ether	1330	1180		ug/Kg		89	62 - 119
Chrysene	1330	1170		ug/Kg		88	63 - 120
Dibenz(a,h)anthracene	1330	1260		ug/Kg		94	64 - 131
Dibenzofuran	1330	1160		ug/Kg		87	66 - 115
3,3'-Dichlorobenzidine	1330	930		ug/Kg		70	35 - 128
2,4-Dichlorophenol	1330	1350		ug/Kg		101	58 - 120
Diethyl phthalate	1330	1300		ug/Kg		97	58 - 120
2,4-Dimethylphenol	1330	966		ug/Kg		72	60 - 110
Dimethyl phthalate	1330	1300		ug/Kg		98	69 - 116
Di-n-butyl phthalate	1330	1230		ug/Kg		92	65 - 120
4,6-Dinitro-2-methylphenol	2670	1950		ug/Kg		73	10 - 110
2,4-Dinitrophenol	2670	1380		ug/Kg		52	10 - 100
2,6-Dinitrotoluene	1330	1370		ug/Kg		103	70 - 123
2,4-Dinitrotoluene	1330	1350		ug/Kg		101	69 - 124
Di-n-octyl phthalate	1330	1530		ug/Kg		114	68 - 134
Fluoranthene	1330	1270		ug/Kg		95	62 - 120
Fluorene	1330	1210		ug/Kg		91	62 - 120
Hexachlorobenzene	1330	1230		ug/Kg		92	63 - 124
Hexachlorobutadiene	1330	1320		ug/Kg		99	56 - 120
Hexachlorocyclopentadiene	1330	342	J	ug/Kg		26	10 - 133
Hexachloroethane	1330	1110		ug/Kg		83	60 - 114
Indeno[1,2,3-cd]pyrene	1330	1240		ug/Kg		93	68 - 130
Isophorone	1330	1180		ug/Kg		88	55 - 110
2-Methylnaphthalene	1330	1290		ug/Kg		97	69 - 112
2-Methylphenol	1330	1250		ug/Kg		94	60 - 120
3 & 4 Methylphenol	1330	1210		ug/Kg		91	57 - 120
Naphthalene	1330	1240		ug/Kg		93	63 - 110
2-Nitroaniline	1330	1100		ug/Kg		83	57 - 124
3-Nitroaniline	1330	1100		ug/Kg		83	40 - 122
4-Nitroaniline	1330	1110		ug/Kg		83	60 - 160
Nitrobenzene	1330	1150		ug/Kg		87	60 - 116
2-Nitrophenol	1330	1310		ug/Kg		98	60 - 120
4-Nitrophenol	2670	2400		ug/Kg		90	30 - 122
N-Nitrosodi-n-propylamine	1330	987		ug/Kg		74	56 - 118
N-Nitrosodiphenylamine	1330	1230		ug/Kg		92	65 - 112
2,2'-oxybis[1-chloropropane]	1330	1050		ug/Kg		79	40 - 124
Pentachlorophenol	2670	1170		ug/Kg		44	13 - 112
Phenanthrene	1330	1190		ug/Kg		89	62 - 120
Phenol	1330	1300		ug/Kg		98	56 - 122
Pyrene	1330	1000		ug/Kg		75	61 - 128
2,4,6-Trichlorophenol	1330	1260		ug/Kg		95	57 - 120
2,4,5-Trichlorophenol	1330	1290		ug/Kg		97	50 - 120

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

Lab Sample ID: LCS 500-590082/2-A
Matrix: Solid
Analysis Batch: 590442

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 590082

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol (Surr)	111		31 - 166
Phenol-d5 (Surr)	92		30 - 153
Nitrobenzene-d5 (Surr)	84		37 - 147
2-Fluorobiphenyl (Surr)	94		43 - 145
2,4,6-Tribromophenol (Surr)	92		31 - 143
Terphenyl-d14 (Surr)	79		42 - 157

Lab Sample ID: MB 500-590448/1-A
Matrix: Solid
Analysis Batch: 590523

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 590448

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<0.0020		0.0020	0.0020	mg/L		03/25/21 18:42	03/26/21 12:39	1
Pyridine	<0.020		0.020	0.020	mg/L		03/25/21 18:42	03/26/21 12:39	1
2,4-Dinitrotoluene	<0.0010		0.0010	0.0010	mg/L		03/25/21 18:42	03/26/21 12:39	1
Hexachlorobenzene	<0.00050		0.00050	0.00050	mg/L		03/25/21 18:42	03/26/21 12:39	1
Hexachlorobutadiene	<0.0050		0.0050	0.0050	mg/L		03/25/21 18:42	03/26/21 12:39	1
Hexachloroethane	<0.0050		0.0050	0.0050	mg/L		03/25/21 18:42	03/26/21 12:39	1
2-Methylphenol	<0.0020		0.0020	0.0020	mg/L		03/25/21 18:42	03/26/21 12:39	1
3 & 4 Methylphenol	<0.0020		0.0020	0.0020	mg/L		03/25/21 18:42	03/26/21 12:39	1
Nitrobenzene	<0.0010		0.0010	0.0010	mg/L		03/25/21 18:42	03/26/21 12:39	1
Pentachlorophenol	<0.020		0.020	0.020	mg/L		03/25/21 18:42	03/26/21 12:39	1
2,4,6-Trichlorophenol	<0.0050		0.0050	0.0050	mg/L		03/25/21 18:42	03/26/21 12:39	1
2,4,5-Trichlorophenol	<0.010		0.010	0.010	mg/L		03/25/21 18:42	03/26/21 12:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	56		27 - 110	03/25/21 18:42	03/26/21 12:39	1
Phenol-d5 (Surr)	33		20 - 100	03/25/21 18:42	03/26/21 12:39	1
Nitrobenzene-d5 (Surr)	82		36 - 120	03/25/21 18:42	03/26/21 12:39	1
2-Fluorobiphenyl	90		34 - 110	03/25/21 18:42	03/26/21 12:39	1
2,4,6-Tribromophenol (Surr)	86		40 - 145	03/25/21 18:42	03/26/21 12:39	1
Terphenyl-d14 (Surr)	115		40 - 145	03/25/21 18:42	03/26/21 12:39	1

Lab Sample ID: LCS 500-590448/2-A
Matrix: Solid
Analysis Batch: 590523

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 590448

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.0400	0.0254		mg/L		64	23 - 110
Pyridine	0.0800	0.0339		mg/L		42	15 - 110
2,4-Dinitrotoluene	0.0400	0.0378		mg/L		94	63 - 129
Hexachlorobenzene	0.0400	0.0388		mg/L		97	61 - 126
Hexachlorobutadiene	0.0400	0.0262		mg/L		66	20 - 100
Hexachloroethane	0.0400	0.0252		mg/L		63	20 - 100
2-Methylphenol	0.0400	0.0297		mg/L		74	53 - 115
3 & 4 Methylphenol	0.0400	0.0263		mg/L		66	50 - 116
Nitrobenzene	0.0400	0.0321		mg/L		80	54 - 121
Pentachlorophenol	0.0800	0.0698		mg/L		87	42 - 148

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

Lab Sample ID: LCS 500-590448/2-A
Matrix: Solid
Analysis Batch: 590523

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 590448

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,6-Trichlorophenol	0.0400	0.0366		mg/L		92	62 - 121
2,4,5-Trichlorophenol	0.0400	0.0357		mg/L		89	63 - 124

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol (Surr)	*60*		*27 - 110*
Phenol-d5 (Surr)	*38*		*20 - 100*
Nitrobenzene-d5 (Surr)	*77*		*36 - 120*
2-Fluorobiphenyl	*87*		*34 - 110*
2,4,6-Tribromophenol (Surr)	*89*		*40 - 145*
Terphenyl-d14 (Surr)	*102*		*40 - 145*

Lab Sample ID: LB2 500-590170/1-C
Matrix: Solid
Analysis Batch: 590523

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 590448

Analyte	LB2 Result	LB2 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<0.020		0.020	0.020	mg/L		03/25/21 18:42	03/26/21 14:31	1
Pyridine	<0.20		0.20	0.20	mg/L		03/25/21 18:42	03/26/21 14:31	1
2,4-Dinitrotoluene	<0.010		0.010	0.010	mg/L		03/25/21 18:42	03/26/21 14:31	1
Hexachlorobenzene	<0.0050		0.0050	0.0050	mg/L		03/25/21 18:42	03/26/21 14:31	1
Hexachlorobutadiene	<0.050		0.050	0.050	mg/L		03/25/21 18:42	03/26/21 14:31	1
Hexachloroethane	<0.050		0.050	0.050	mg/L		03/25/21 18:42	03/26/21 14:31	1
2-Methylphenol	<0.020		0.020	0.020	mg/L		03/25/21 18:42	03/26/21 14:31	1
3 & 4 Methylphenol	<0.020		0.020	0.020	mg/L		03/25/21 18:42	03/26/21 14:31	1
Nitrobenzene	<0.010		0.010	0.010	mg/L		03/25/21 18:42	03/26/21 14:31	1
Pentachlorophenol	<0.20		0.20	0.20	mg/L		03/25/21 18:42	03/26/21 14:31	1
2,4,6-Trichlorophenol	<0.050		0.050	0.050	mg/L		03/25/21 18:42	03/26/21 14:31	1
2,4,5-Trichlorophenol	<0.10		0.10	0.10	mg/L		03/25/21 18:42	03/26/21 14:31	1

Surrogate	*LB2 %Recovery*	*LB2 Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*59*		*27 - 110*	*03/25/21 18:42*	*03/26/21 14:31*	*1*
Phenol-d5 (Surr)	*30*		*20 - 100*	*03/25/21 18:42*	*03/26/21 14:31*	*1*
Nitrobenzene-d5 (Surr)	*81*		*36 - 120*	*03/25/21 18:42*	*03/26/21 14:31*	*1*
2-Fluorobiphenyl	*88*		*34 - 110*	*03/25/21 18:42*	*03/26/21 14:31*	*1*
2,4,6-Tribromophenol (Surr)	*87*		*40 - 145*	*03/25/21 18:42*	*03/26/21 14:31*	*1*
Terphenyl-d14 (Surr)	*114*		*40 - 145*	*03/25/21 18:42*	*03/26/21 14:31*	*1*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-589142/1-A
Matrix: Solid
Analysis Batch: 589384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589142

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	15.7	J	20	8.2	mg/Kg		03/18/21 06:56	03/18/21 19:47	1
Antimony	<2.0		2.0	0.39	mg/Kg		03/18/21 06:56	03/18/21 19:47	1
Arsenic	<1.0		1.0	0.34	mg/Kg		03/18/21 06:56	03/18/21 19:47	1
Barium	<1.0		1.0	0.11	mg/Kg		03/18/21 06:56	03/18/21 19:47	1

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

Lab Sample ID: MB 500-589142/1-A
Matrix: Solid
Analysis Batch: 589384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589142

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.40		0.40	0.093	mg/Kg		03/18/21 06:56	03/18/21 19:47	1
Cadmium	0.0554	J	0.20	0.036	mg/Kg		03/18/21 06:56	03/18/21 19:47	1
Calcium	<20		20	3.4	mg/Kg		03/18/21 06:56	03/18/21 19:47	1
Chromium	<1.0		1.0	0.50	mg/Kg		03/18/21 06:56	03/18/21 19:47	1
Cobalt	<0.50		0.50	0.13	mg/Kg		03/18/21 06:56	03/18/21 19:47	1
Copper	<1.0		1.0	0.28	mg/Kg		03/18/21 06:56	03/18/21 19:47	1
Iron	23.0		20	10	mg/Kg		03/18/21 06:56	03/18/21 19:47	1
Lead	<0.50		0.50	0.23	mg/Kg		03/18/21 06:56	03/18/21 19:47	1
Magnesium	5.77	J	10	5.0	mg/Kg		03/18/21 06:56	03/18/21 19:47	1
Manganese	0.560	J	1.0	0.15	mg/Kg		03/18/21 06:56	03/18/21 19:47	1
Nickel	<1.0		1.0	0.29	mg/Kg		03/18/21 06:56	03/18/21 19:47	1
Selenium	<1.0		1.0	0.59	mg/Kg		03/18/21 06:56	03/18/21 19:47	1
Silver	<0.50		0.50	0.13	mg/Kg		03/18/21 06:56	03/18/21 19:47	1
Sodium	<100		100	15	mg/Kg		03/18/21 06:56	03/18/21 19:47	1
Thallium	<1.0		1.0	0.50	mg/Kg		03/18/21 06:56	03/18/21 19:47	1
Vanadium	<0.50		0.50	0.12	mg/Kg		03/18/21 06:56	03/18/21 19:47	1
Zinc	<2.0		2.0	0.88	mg/Kg		03/18/21 06:56	03/18/21 19:47	1

Lab Sample ID: MB 500-589142/1-A
Matrix: Solid
Analysis Batch: 589573

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589142

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	22.0	J	50	18	mg/Kg		03/18/21 06:56	03/19/21 20:25	1

Lab Sample ID: LCS 500-589142/2-A
Matrix: Solid
Analysis Batch: 589384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589142

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	200	210		mg/Kg		105	80 - 120
Antimony	50.0	46.7		mg/Kg		93	80 - 120
Arsenic	10.0	9.91		mg/Kg		99	80 - 120
Barium	200	217		mg/Kg		109	80 - 120
Beryllium	5.00	4.96		mg/Kg		99	80 - 120
Cadmium	5.00	4.93		mg/Kg		99	80 - 120
Calcium	1000	942		mg/Kg		94	80 - 120
Chromium	20.0	18.8		mg/Kg		94	80 - 120
Cobalt	50.0	47.8		mg/Kg		96	80 - 120
Copper	25.0	24.3		mg/Kg		97	80 - 120
Iron	100	106		mg/Kg		106	80 - 120
Lead	10.0	9.35		mg/Kg		94	80 - 120
Magnesium	1000	967		mg/Kg		97	80 - 120
Manganese	50.0	50.6		mg/Kg		101	80 - 120
Nickel	50.0	49.1		mg/Kg		98	80 - 120
Selenium	10.0	8.66		mg/Kg		87	80 - 120
Silver	5.00	4.58		mg/Kg		92	80 - 120
Sodium	1000	1060		mg/Kg		106	80 - 120
Thallium	10.0	9.86		mg/Kg		99	80 - 120

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

Lab Sample ID: LCS 500-589142/2-A
Matrix: Solid
Analysis Batch: 589384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589142

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vanadium	50.0	47.4		mg/Kg		95	80 - 120
Zinc	50.0	47.7		mg/Kg		95	80 - 120

Lab Sample ID: LCS 500-589142/2-A
Matrix: Solid
Analysis Batch: 589573

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589142

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	1000	948		mg/Kg		95	80 - 120

Method: 6010C - Metals (ICP)

Lab Sample ID: LCS 500-590423/18-A
Matrix: Solid
Analysis Batch: 590577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 590423

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.102		mg/L		102	80 - 120
Barium	0.500	0.521		mg/L		104	80 - 120
Cadmium	0.0500	0.0478		mg/L		96	80 - 120
Chromium	0.200	0.193		mg/L		96	80 - 120
Lead	0.100	0.0931		mg/L		93	80 - 120
Selenium	0.100	0.0994		mg/L		99	80 - 120
Silver	0.0500	0.0464		mg/L		93	80 - 120

Lab Sample ID: LB2 500-590170/1-B
Matrix: Solid
Analysis Batch: 590577

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 590423

Analyte	LB2 Result	LB2 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		03/25/21 16:52	03/26/21 11:49	1
Barium	<0.50		0.50	0.050	mg/L		03/25/21 16:52	03/26/21 11:49	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		03/25/21 16:52	03/26/21 11:49	1
Chromium	<0.025		0.025	0.010	mg/L		03/25/21 16:52	03/26/21 11:49	1
Lead	<0.050		0.050	0.0075	mg/L		03/25/21 16:52	03/26/21 11:49	1
Selenium	<0.050		0.050	0.020	mg/L		03/25/21 16:52	03/26/21 11:49	1
Silver	<0.025		0.025	0.010	mg/L		03/25/21 16:52	03/26/21 11:49	1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-590763/12-A
Matrix: Solid
Analysis Batch: 590992

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 590763

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		03/29/21 09:50	03/30/21 08:47	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 500-590763/36-A
Matrix: Solid
Analysis Batch: 590992

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 590763

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00192		mg/L		96	80 - 120

Lab Sample ID: LB2 500-590170/2-B
Matrix: Solid
Analysis Batch: 590992

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 590763

Analyte	LB2 Result	LB2 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		03/29/21 09:50	03/30/21 09:51	1

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-590363/12-A
Matrix: Solid
Analysis Batch: 590583

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 590363

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017	0.0056	mg/Kg		03/25/21 10:32	03/26/21 09:45	1

Lab Sample ID: LCS 500-590363/13-A
Matrix: Solid
Analysis Batch: 590583

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 590363

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.190		mg/Kg		114	80 - 120

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 500-589489/1-A
Matrix: Solid
Analysis Batch: 589529

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 589489

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.24		0.24	0.12	mg/Kg		03/19/21 13:05	03/19/21 16:30	1

Lab Sample ID: HLCS 500-589489/2-A
Matrix: Solid
Analysis Batch: 589529

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589489

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	12.0	12.0		mg/Kg		100	90 - 110

Lab Sample ID: LCS 500-589489/3-A
Matrix: Solid
Analysis Batch: 589529

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589489

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	2.40	2.57		mg/Kg		107	85 - 115

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: LLCS 500-589489/4-A
Matrix: Solid
Analysis Batch: 589529

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 589489

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	1.20	1.01		mg/Kg		84	75 - 125

Method: 9045D - pH

Lab Sample ID: 500-196180-1 DU
Matrix: Solid
Analysis Batch: 589054

Client Sample ID: Inlet Channel Sediment
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.5		7.5		SU		0.1	

Method: 9071B - HEM and SGT-HEM

Lab Sample ID: MB 500-590142/1-A
Matrix: Solid
Analysis Batch: 590361

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 590142

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<500		500	240	mg/Kg		03/24/21 10:56	03/25/21 10:31	1

Lab Sample ID: LCS 500-590142/2-A
Matrix: Solid
Analysis Batch: 590361

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 590142

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	4000	3610		mg/Kg		90	78 - 114

Lab Chronicle

Client: ArcelorMittal USA Inc.
Project/Site: Inlet Channel Sediment

Job ID: 500-196180-1

Client Sample ID: Inlet Channel Sediment

Lab Sample ID: 500-196180-1

Date Collected: 03/11/21 08:40

Matrix: Solid

Date Received: 03/16/21 13:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			590172	03/24/21 14:55	CMS	TAL CHI
TCLP	Analysis	8260B		20	590282	03/25/21 12:29	PMF	TAL CHI
TCLP	Leach	1311			590170	03/24/21 13:15	CMS	TAL CHI
TCLP	Prep	3510C			590448	03/25/21 18:42	JP1	TAL CHI
TCLP	Analysis	8270D		1	590523	03/26/21 15:55	NRJ	TAL CHI
TCLP	Leach	1311			590170	03/24/21 13:15	CMS	TAL CHI
TCLP	Prep	3010A			590423	03/25/21 16:52	BDE	TAL CHI
TCLP	Analysis	6010C		10	590577	03/26/21 11:56	JJB	TAL CHI
TCLP	Leach	1311			590170	03/24/21 13:15	CMS	TAL CHI
TCLP	Prep	7470A			590763	03/29/21 09:50	MJG	TAL CHI
TCLP	Analysis	7470A		1	590992	03/30/21 09:55	MJG	TAL CHI
Total/NA	Analysis	9045D		1	589054		SMO	TAL CHI
					(Start)	03/17/21 16:31		
					(End)	03/17/21 16:34		
Total/NA	Analysis	Moisture		1	588986	03/17/21 09:55	LWN	TAL CHI

Client Sample ID: Inlet Channel Sediment

Lab Sample ID: 500-196180-1

Date Collected: 03/11/21 08:40

Matrix: Solid

Date Received: 03/16/21 13:38

Percent Solids: 37.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	590270	03/25/21 11:31	PMF	TAL CHI
Total/NA	Prep	3541			590082	03/24/21 08:05	BSO	TAL CHI
Total/NA	Analysis	8270D		1	590442	03/25/21 23:50	NRJ	TAL CHI
Total/NA	Prep	3050B			589142	03/18/21 06:56	LMN	TAL CHI
Total/NA	Analysis	6010B		1	589384	03/18/21 20:48	EEN	TAL CHI
Total/NA	Prep	3050B			589142	03/18/21 06:56	LMN	TAL CHI
Total/NA	Analysis	6010B		1	589573	03/19/21 21:42	EEN	TAL CHI
Total/NA	Prep	3050B			589142	03/18/21 06:56	LMN	TAL CHI
Total/NA	Analysis	6010B		5	589573	03/19/21 21:45	EEN	TAL CHI
Total/NA	Prep	7471B			590363	03/25/21 10:32	PFK	TAL CHI
Total/NA	Analysis	7471B		1	590583	03/26/21 10:12	DAJ	TAL CHI
Total/NA	Prep	9010C			589489	03/19/21 13:05	MS	TAL CHI
Total/NA	Analysis	9012B		1	589529	03/19/21 17:16	MS	TAL CHI
Total/NA	Prep	9071B			590142	03/24/21 10:56	TMS	TAL CHI
Total/NA	Analysis	9071B		1	590361		JSB	TAL CHI
					(Start)	03/25/21 10:31		
					(End)	03/25/21 15:32		

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: ArcelorMittal USA Inc.
Project/Site: Inlet Channel Sediment

Job ID: 500-196180-1

Laboratory: Eurofins TestAmerica, Chicago

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2903	04-30-21
Georgia	State	N/A	04-29-21
Georgia (DW)	State	939	04-30-21
Hawaii	State	NA	04-30-20 *
Illinois	NELAP	IL00035	04-29-21
Indiana	State	C-IL-02	06-29-21
Iowa	State	082	05-01-22
Kansas	NELAP	E-10161	10-31-21
Kentucky (UST)	State	AI # 108083	04-29-21
Kentucky (WW)	State	KY90023	12-31-21
Louisiana	NELAP	02046	06-30-21
Mississippi	State	NA	04-30-20 *
New York	NELAP	12019	04-01-21
North Carolina (WW/SW)	State	291	12-31-21
North Dakota	State	R-194	04-29-21
Oklahoma	State	8908	08-31-21
South Carolina	State	77001003	04-29-21
USDA	US Federal Programs	P330-18-00018	02-11-24
Wisconsin	State	999580010	08-31-21
Wyoming	State	8TMS-Q	04-30-20 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Rhiannon Ulatowski	Lab PM: Hargraves Therese M	Carrier Tracking No(s)	COC No: CC 2021-3-16
Client Contact: John Olashuk	Phone: 219-787-4155	E-Mail: therese hargraves@testamericainc com		Page: Page 1 of 1
Company: Cleveland Cliffs Burns Harbor		**Analysis Requested**		Job #: 500-196180

Address: 250 West US Highway 12	**Due Date Requested**	
City: Burns Harbor	**TAT Requested (days)**	
State Zip: IN 46304		
Phone: 574-850-3356	PO #: B761434	
Email: john olashuk@arcelormittal com	WO #:	
Project Name: Lagoon Channel Sediment Sampling	Project #:	
Site: Lagoon Inlet Channel (south shoreline)	SSOW#:	

500-196180 COC

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)	TCLP RCRA Metals	TCLP VOC	TCLP SVOC	TAL Metals	VOC	SVOC	pH	Ammonia	Cyanide	Oil and Grease				Total Number of containers	Special Instructions/Note
				Preservation Code:			N	N	N	N	N	N	N	N	N						
Inlet Channel Sediment	3/11/21	8 40	G	Solid	No	No	X	X	X	X	X	X	X	X	X	X				3	
				Solid																	
				Solid																	
				Solid																	
				Solid																	
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				Solid																	
				Solid																	

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
[signature]	3-16-21 8:00		Chris Emery	3-16-21 1000	ETR
Chris Emery	3/16/21 1200	ETR	Xavier Card	3/16/21 1200	ETA
Xavier Card	3/16/21 1300	ETA	P. Neal	3/16/21 1300	ETA

Custody Seals Intact: Δ Yes Δ No | Custody Seal No: P. Neal 3/16/21 1338

Cooler Temperature(s) °C and Other Remarks: [signature] 3/16/21 1338 2.3 4.8 °C ETA-IR

Login Sample Receipt Checklist

Client: ArcelorMittal USA Inc.

Job Number: 500-196180-1

Login Number: 196180
List Number: 1
Creator: Scott, Sherri L

List Source: Eurofins TestAmerica, Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	