



August 22, 2019

Arcelor Mittal USA, Inc.
250 W US Highway 12
Burns Harbor, IN 46304-9745

Work Order No.: 19H1391

Re: NPDES Parameters

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 6 sample(s) on 8/22/2019 9:50:00AM for the analyses presented in the following report as Work Order 19H1391.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Ron Misiunas, Division Manager, at ron.misiunas@microbac.com.

Sincerely,
Microbac Laboratories, Inc.

A handwritten signature in black ink that reads "Carey Gadzala". The signature is written in a cursive, flowing style.

Carey Gadzala
Project Manager

[Microbac Laboratories, Inc.](http://www.microbac.com)

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WORK ORDER SAMPLE SUMMARY**Date:** *Thursday, August 22, 2019*

Client: Arcelor Mittal USA, Inc.
Project: NPDES Parameters
Lab Order: 19H1391

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
19H1391-01	011-Composite	011	08/21/2019 00:00	8/22/2019 9:50:00AM
19H1391-02	011-Grab	011	08/22/2019 00:00	8/22/2019 9:50:00AM
19H1391-03	001-Composite	001	08/21/2019 00:00	8/22/2019 9:50:00AM
19H1391-04	001-Grab	001	08/22/2019 00:00	8/22/2019 9:50:00AM
19H1391-05	002-Composite	002	08/21/2019 00:00	8/22/2019 9:50:00AM
19H1391-06	002-Grab	002	08/22/2019 00:00	8/22/2019 9:50:00AM

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Analytical Results

Date: Thursday, August 22, 2019

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19H1391-01
Client Project:	NPDES Parameters	Sampled:	08/21/2019 0:00
Client Sample ID:	011-Composite	Received:	08/22/2019 9:50
Sample Description:	011		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: SM 4500-CN C/E-1999			Analyst: ABG			
						Prep Date/Time: 08/22/2019 10:45			
Total Cyanide									
Cyanide, Total	ejj	A	0.0054	0.0020	0.0050		mg/L	1	08/22/2019 14:54
			Method: EPA 350.1 Rev 2.0			Analyst: ABG			
						Prep Date/Time: 08/22/2019 13:55			
Nitrogen, Ammonia as N									
Nitrogen, Ammonia (As N)	ei	A	0.47	0.054	0.10		mg/L	1	08/22/2019 14:30
			Method: EPA 420.4 Rev 1.0			Analyst: ABG			
						Prep Date/Time: 08/22/2019 10:40			
Total Phenolics									
Phenolics, Total Recoverable	ejj	A	0.0099	0.0060	0.010		mg/L	1	08/22/2019 17:02
			Method: SM 2540 D-1997			Analyst: KMT			
						Prep Date/Time: 08/22/2019 10:49			
Total Suspended Solids									
Total Suspended Solids	ejj	A	1.5	1.0	1.0		mg/L	1	08/22/2019 12:30

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Analytical Results

Date: Thursday, August 22, 2019

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19H1391-02
Client Project:	NPDES Parameters	Sampled:	08/22/2019 0:00
Client Sample ID:	011-Grab	Received:	08/22/2019 9:50
Sample Description:	011		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: EPA 1664B				Analyst: KMT			
Oil & Grease (HEM) by SPE										
Oil & Grease (HEM)	ejj	A	ND	1.4	5.0	U	mg/L	1	08/22/2019 14:12	



Analytical Results

Date: Thursday, August 22, 2019

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19H1391-03
Client Project:	NPDES Parameters	Sampled:	08/21/2019 0:00
Client Sample ID:	001-Composite	Received:	08/22/2019 9:50
Sample Description:	001		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: SM 4500-CN C/E-1999				Analyst: ABG			
										Prep Date/Time: 08/22/2019 10:45
Total Cyanide										
Cyanide, Total	ejj	A	0.0045	0.0020	0.0050		mg/L	1	08/22/2019 14:56	
			Method: EPA 350.1 Rev 2.0				Analyst: ABG			
										Prep Date/Time: 08/22/2019 13:55
Nitrogen, Ammonia as N										
Nitrogen, Ammonia (As N)	ei	A	0.33	0.054	0.10		mg/L	1	08/22/2019 14:32	
			Method: EPA 420.4 Rev 1.0				Analyst: ABG			
										Prep Date/Time: 08/22/2019 10:40
Total Phenolics										
Phenolics, Total Recoverable	ejj	A	0.014	0.0060	0.010		mg/L	1	08/22/2019 17:04	
			Method: SM 2540 D-1997				Analyst: KMT			
										Prep Date/Time: 08/22/2019 10:49
Total Suspended Solids										
Total Suspended Solids	ejj	A	2.2	1.0	1.0		mg/L	1	08/22/2019 12:30	

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Analytical Results

Date: Thursday, August 22, 2019

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19H1391-04
Client Project:	NPDES Parameters	Sampled:	08/22/2019 0:00
Client Sample ID:	001-Grab	Received:	08/22/2019 9:50
Sample Description:	001		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: EPA 1664B				Analyst: KMT			
Oil & Grease (HEM) by SPE										
Oil & Grease (HEM)	ejj	A	ND	1.4	5.0	U	mg/L	1	08/22/2019 14:12	

Analytical Results

Date: Thursday, August 22, 2019

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19H1391-05
Client Project:	NPDES Parameters	Sampled:	08/21/2019 0:00
Client Sample ID:	002-Composite	Received:	08/22/2019 9:50
Sample Description:	002		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
				Method: SM 4500-CN C/E-1999			Analyst: ABG			
Total Cyanide										
Prep Date/Time: 08/22/2019 10:45										
Cyanide, Total	ejj	A	ND	0.0020	0.0050	U	mg/L	1	08/22/2019 15:01	

Analytical Results

Date: Thursday, August 22, 2019

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19H1391-06
Client Project:	NPDES Parameters	Sampled:	08/22/2019 0:00
Client Sample ID:	002-Grab	Received:	08/22/2019 9:50
Sample Description:	002		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: EPA 1664B				Analyst: KMT			
Oil & Grease (HEM) by SPE										
Oil & Grease (HEM)	ejj	A	ND	1.4	5.0	U	mg/L	1	08/22/2019 14:12	

ANALYTE TYPES: (AT)

A, B = Target Analyte

I = Internal Standard

M = Summation Analyte

S = Surrogate

T = Tentatively Identified Compound (TIC, concentration estimated)



QC SAMPLE IDENTIFICATIONS

BLK = Method Blank

DUP = Method Duplicate

BS = Method Blank Spike

MS = Matrix Spike

ICB = Initial Calibration Blank

CCB = Continuing Calibration Blank

CRL = Client Required Reporting Limit

PDS = Post Digestion Spike

QCS = Quality Control Standard

ICSA = Interference Check Standard "A"

ICSAB = Interference Check Standard "AB"

BSD = Method Blank Spike Duplicate

MSD = Matrix Spike Duplicate

ICV = Initial Calibration Verification

CCV = Continuing Calibration Verification

OPR = Ongoing Precision and Recovery Standard

SD = Serial Dilution

CERTIFICATIONS (Certs)

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

d Illinois EPA drinking water, wastewater and solid waste analysis (#200064)

i Kansas Dept Health & Env. NELAP (#E-10397)

j Kentucky Wastewater Laboratory Certification Program (#108202)

FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)**MDL:** Minimum Detection Limit**RL:** Reporting Limit**RPD:** Relative Percent Difference**U:** The analyte was analyzed for but was not detected above the reported quantitation limit. The quantitation limit has been adjusted for any dilution or concentration of the sample.

Cooler Receipt Log

Cooler ID: Default Cooler

Temp: 2.7°C
 MICROBAC®

Comments

No times

Cooler Inspection Checklist

Ice Present or not required?	Yes
Shipping containers sealed or not required?	Yes
Custody seals intact or not required?	Yes
Chain of Custody (COC) Present?	Yes
COC includes customer information?	Yes
Relinquished and received signature on COC?	Yes
Sample collector identified on COC?	Yes
Sample type identified on COC?	Yes
Correct type of Containers Received	No
Correct number of containers listed on COC?	Yes
Containers Intact?	Yes
COC includes requested analyses?	Yes
Enough sample volume for indicated tests received?	Yes
Sample labels match COC (Name, Date & Time?)	Yes
Samples arrived within hold time?	Yes
Correct preservatives on COC or not required?	Yes
Chemical preservations checked or not required?	Yes
Preservation checks meet method requirements?	Yes
VOA vials have zero headspace, or not recd.?	Yes

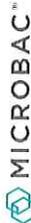
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RUSH!

CHAIN OF CUSTODY-RECORD

Number **152313**
Instructions on back



Lab Report Address

Client Name: *Arcelor Mittal*

Address:

City, State, Zip: *Terris, IN*

Contact:

Telephone No.:

Send Report via: Mail Fax e-mail (address)

Project:

Location:

PO No.:

Send Invoice via: Mail Fax e-mail (address)

Compliance Monitoring? Yes No

Agency/Program

Sampled by (PRINT): *Warren Howard*

Sampler Phone No.:

Sampler Signature:

* Matrix Types: Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify)
** Preservative Types: (1) HNO3, (2) H2SO4, (3) HCl, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved

REQUESTED ANALYSIS

Client Sample ID	Date Collected	Time Collected	No. of Containers	Matrix	Grab / Comp	Preservative Types **	Analysis	Additional Notes
011	8/21/19		1		C		Chlorine	19H1391
011	8/22/19		3		G			01
001	8/21/19		1		C			02
001	8/22/19		3		G			03
002	8/21/19		1		C			04
002	8/22/19		2		G			05
								06

19H1391 Carey Gadzala
ArcelorMittal - Burns Harbor, IN
NPDES Parameters
08/22/2019

Possible Hazard Identification

Hazardous Non-Hazardous Radioactive

Sample Disposition

Dispose as appropriate Return Archive

Comments

Relinquished By (signature) *Warren Howard*

Date/Time 8/22/19 0840

Received By (signature) *Warren Howard*

Date/Time 8/22/19 0840

Relinquished By (signature) *Warren Howard*

Date/Time 8/22/19 0950

Received By (signature) *Warren Howard*

Date/Time 8/22/19 0840

Relinquished By (signature) *Warren Howard*

Date/Time 8/22/19 0950

Received By (signature) *Warren Howard*

Date/Time 8/22/19 0840