MICROBAC®

September 3, 2019

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

Work Order No.: 19I0036

Re: NPDES Excursion-CN

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 3 sample(s) on 9/3/2019 10:20:00AM for the analyses presented in the following report as Work Order 19I0036.

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.

Carey Gadzala
Project Manager

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WORK ORDER SAMPLE SUMMARY

Date: *Tuesday, September 3, 2019*

Client: Arcelor Mittal USA, Inc.
Project: NPDES Excursion-CN
Lab Order: 19I0036

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
19I0036-01	Lagoon Channel Inlet		09/03/2019 05:50	9/3/2019 10:20:00AM
19I0036-02	South Lagoon Inlet		09/03/2019 05:51	9/3/2019 10:20:00AM
19I0036-03	011		09/03/2019 06:00	9/3/2019 10:20:00AM

Analytical Results

Date: *Tuesday, September 3, 2019*

Client:	Arcelor Mittal USA, Inc.
Client Project:	NPDES Excursion-CN

Client Sample ID:	Lagoon Channel Inlet	**Work Order/ID:**	19I0036-01
Sample Description:		**Sampled:**	09/03/2019 5:50
Matrix:	Aqueous	**Received:**	09/03/2019 10:20

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**				Analyst: **ABG**	
Total Cyanide			Prep Method: **NA**				Prep Date/Time: **09/03/2019 11:15**	
Cyanide, Total	dij	A	*0.0064*	0.0050		mg/L	1	09/03/2019 14:19

Analytical Results

Date: *Tuesday, September 3, 2019*

Client:	Arcelor Mittal USA, Inc.
Client Project:	NPDES Excursion-CN

Client Sample ID:	South Lagoon Inlet	**Work Order/ID:**	19I0036-02
Sample Description:		**Sampled:**	09/03/2019 5:51
Matrix:	Aqueous	**Received:**	09/03/2019 10:20

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**				Analyst:**ABG**	
Total Cyanide			Prep Method: **NA**				Prep Date/Time:**09/03/2019 11:15**	
Cyanide, Total	dij	A	*0.0060*	0.0050		mg/L	1	09/03/2019 14:21

Analytical Results

Date: *Tuesday, September 3, 2019*

Client:	Arcelor Mittal USA, Inc.
Client Project:	NPDES Excursion-CN

Client Sample ID:	011	**Work Order/ID:**	19I0036-03
Sample Description:		**Sampled:**	09/03/2019 6:00
Matrix:	Aqueous	**Received:**	09/03/2019 10:20

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**				Analyst:**ABG**	
Total Cyanide			Prep Method: **NA**				Prep Date/Time:**09/03/2019 11:15**	
Cyanide, Total	dij	A	*0.0052*	0.0050		mg/L	1	09/03/2019 14:22

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	ICSA = Interference Check Standard "A"
DUP = Method Duplicate	ICSAB = Interference Check Standard "AB"
BS = Method Blank Spike	BSD = Method Blank Spike Duplicate
MS = Matrix Spike	MSD = Matrix Spike Duplicate
ICB = Initial Calibration Blank	ICV = Initial Calibration Verification
CCB = Continuing Calibration Blank	CCV = Continuing Calibration Verification
CRL = Client Required Reporting Limit	OPR = Ongoing Precision and Recovery Standard
PDS = Post Digestion Spike	SD = Serial Dilution
QCS = Quality Control Standard	

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)

RL:	Reporting Limit
RPD:	Relative Percent Difference

Cooler Receipt Log

      Cooler ID: Default Cooler   Temp: 4.3ºC

Comments

      No times on sample containers

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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?	No
Correct type of Containers Received	Yes
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?)	No
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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CHAIN OF CUSTODY RECORD

Number: **152287**

Instructions on back

TO BE COMPLETED BY MICROBAC

Temperature Upon Receipt (°C): 4.6 0.3

Therm ID: 43

Holding Time:

Samples Received on Ice? ☒ Yes ☐ No ☐ N/A

Custody Seals Intact? ☐ Yes ☐ No ☒ N/A

☐ EDD

Turnaround Time
☐ Routine (5 to 7 business days)
☐ RUSH* (notify lab)
(needed by)

RUSH!

Report Type
☐ Results Only ☐ Level 1 ☐ Level 2 ☐ Level 3 ☐ Level 4

Lab Report Address
Client Name: ArcelorMittal

Address:

City, State, Zip:

Contact: Teri Kirk

Telephone No.:

Invoice Address
Client Name:

Address:

City, State, Zip:

Contact:

Telephone No.:

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

Location:

PO No.:

Sampler Signature: Wave Howel

Sampler Phone No.:

(PRINT): Wave Howel

Compliance Monitoring? ☐ Yes ☐ No
☐ Agency/Program

REQUESTED ANALYSIS

* 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

Client Sample ID	Date Collected	Time Collected	No. of Containers	Matrix	Grab / Comp	Preservative Types **	TSS	Phenol	Zn	CN / Pb	FOG / Total CR	Additional Notes
001	9/2/19			R	C		X	X	X	X		19I0036
001	9/2/19		X	G					X	X		
011	9/2/19		1	C			X	X	X	X		
002	9/2/19		1	G	-				X	X		
002	9/2/19		2	G						X		
Legacy Channel Inlet	9/3/19	0550	1	G					X	X	X	-01
South Lagoon Inlet	9/3/19	0551	1	G					X	X		-02
011	9/3/19	0600	1	G					X	X		-03

Possible Hazard Identification ☐ Non-Hazardous ☐ Hazardous ☐ Radioactive

Sample Disposition ☐ Dispose as appropriate ☐ Return ☐ Archive

Comments

Relinquished By (signature)	Date/Time 9/3/19 0800	Received By (signature)	Date/Time 9/3/19 0800
Relinquished By (signature) M. Otto	Date/Time 9/3/19 1020	Received By (signature)	Date/Time
Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time 9/3/19 0620

rev.12/26/2017

Page ____ of ____

1910036   Carey Gadzala
ArcelorMittal - Burns Harbor, IN
NPDES Excursion-CN
09/03/2019