

September 19, 2019

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

Work Order No.: 19I1180

Re: Daily

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 2 sample(s) on 9/19/2019 10:15:00AM for the analyses presented in the following report as Work Order 19I1180.

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



WORK ORDER SAMPLE SUMMARY**Date:** *Thursday, September 19, 2019*

Client: Arcelor Mittal USA, Inc.
Project: Daily
Lab Order: 1911180

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
1911180-01	002-Composite	002	09/18/2019 00:00	9/19/2019 10:15:00AM
1911180-02	002-Grab	002	09/18/2019 00:00	9/19/2019 10:15:00AM

Microbac Laboratories, Inc.

250 West 84th Drive | Merrillville, IN 46410 | 800.536.8379 p | 219.769.8378 p | 219.769.1664 f | www.microbac.com

Analytical Results

Date: *Thursday, September 19, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19I1180-01
Client Project:	Daily	Sampled:	09/18/2019 0:00
Client Sample ID:	002-Composite	Received:	09/19/2019 10:15
Sample Description:	002		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: SM 4500-CN C/E-1999			Analyst: ABG		
Prep Date/Time: 09/19/2019 11:03									
Total Cyanide									
Cyanide, Total	ejj	A	ND	0.0020	0.0050	U	mg/L	1	09/19/2019 14:41

Analytical Results

Date: Thursday, September 19, 2019

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19I1180-02
Client Project:	Daily	Sampled:	09/18/2019 0:00
Client Sample ID:	002-Grab	Received:	09/19/2019 10:15
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										
Prep Date/Time: 09/19/2019 07:16										
Oil & Grease (HEM)	ejj	A	ND	1.4	5.0	U	mg/L	1	09/19/2019 14:42	

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



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	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?)	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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Number **152532**
Instructions on back

Invoice Address

Turnaround Time

TO BE COMPLETED BY MICROBAC

2.2
-0.3
1.9

Client Name: **Arcelor mi Hal BH**
Address:
City, State, Zip:
Contact:
Telephone No.:

Routine (5 to 7 business days)
 RUSH* (notify lab)

Temperature Upon Receipt (°C)
Therm ID
Holding Time

Samples Received on Ice? Yes No N/A
Custody Seals Intact? Yes No N/A

No.: **Carey Gadzala**
t via: Mail Fax e-mail (address)
Send Invoice via: Mail Fax e-mail (address)
Location: **PO No.:**
Compliance Monitoring? Yes No
 Agency/Program

Sampler Signature: **Warren Howard**
Sampler Phone No.:

* 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

Lab ID	Client Sample ID	Date Collected	Time Collected	No. of Containers	Matrix	Grab / Comp	Preservative Types **	NH3	TSS	Phenol	Zn	Cd	Pb	Copper	Silice	Fog	Residual	Additional Notes
	001	9/18/19				G		X	X	X	X	X	X	X	X	X		19E1180
	001	9/18/19				G		X	X	X	X	X	X	X	X	X		
	011	9/18/19				G		X	X	X	X	X	X	X	X	X		
	011	9/18/19				G		X	X	X	X	X	X	X	X	X		
	002	9/18/19				G		X	X	X	X	X	X	X	X	X		
	002	9/18/19				G		X	X	X	X	X	X	X	X	X		
	hargon charcol Intet	9/19/19				G		X	X	X	X	X	X	X	X	X		
	South Layon In let	9/19/19				G		X	X	X	X	X	X	X	X	X		
	011	9/19/19				G		X	X	X	X	X	X	X	X	X		

Possible Hazard Identification Hazardous Non-Hazardous Radioactive Sample Disposition Dispose as appropriate Return Archive

Comments

Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
<i>Warren Howard</i>	9/19/19 0805	<i>R. Obo</i>	9/19/19 0805
Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
<i>R. Obo</i>	9/19/19 1015		
Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
		<i>R. Obo</i>	9/19/19 1005