

September 23, 2019

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

Work Order No.: 19I0694

Re: LLHg - 001

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 3 sample(s) on 9/12/2019 10:00:00AM for the analyses presented in the following report as Work Order 19/0694.

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.

Carup Macizala

Carey Gadzala Project Manager

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



	DER SAMPLE SUMMARY		Monday, September 23, 2019					
Project:	Arcelor Mittal USA, Inc. LHg - 001 9I0694							
Lab Sample II 1910694-01	D Client Sample ID Field Blank	Tag Number	Collection Date 09/12/2019 07:57	Date Received 9/12/2019 10:00:00AM				
1910694-02 1910694-03	001-Grab 001- DUP	001 001	09/12/2019 08:00 09/12/2019 08:00					



CASE NARRATIVE

Date: Monday, September 23, 2019

Client:Arcelor Mittal USA, Inc.Project:LLHg - 001Lab Order:1910694

B - the Method Blank contained mercury at a level above the reporting limit. This does not impact the data, as the concentration in the samples were below the reporting limit. This nonconformance is associated with the following samples:

Laboratory ID Sample Name 1910694-01 Field Blank 1910694-03 001- DUP

The average of the three Method Blanks contained mercury above the level required for the reference method. This nonconformance is associated with the following sample:

Laboratory ID Sample Name 1910694-02 001-Grab

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Analytical Results

Date: Monday, September 23, 2019

Client: Client Project:	Arcelor Mittal US/ LLHg - 001	A, Inc.										
Client Sample ID:	Field Blank							Work	Order/ID:	1910694-01		
Sample Description:								Sampl	ed:	09/12/2019 7:57		
Matrix:	Aqueous							Receiv	ved:	09/12/2019 10:00		
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed		
Method: EPA 1631E										Analyst: BTM		
Total Mercury using CVAFS - Heated Preparation Prep Date/Time: 09/18/2019 09:09										Time:09/18/2019 09:09		
Mercury		eijlm	Α	0.122	0.118	0.500	BJ	ng/L	1	09/19/2019 12:14		

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Analytical Results

Date: Monday, September 23, 2019

Client: Client Project:	Arcelor Mittal US/ LLHg - 001	A, Inc.											
Client Sample ID:							Work	Order/ID:	1910694-02				
Sample Description: 001								Samp	ed:	09/12/2019 8:00			
Matrix:	Aqueous							Receiv	ved:	09/12/2019 10:00			
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed			
Method: EPA 1631E										Analyst: BTM			
Total Mercury using CVAFS - Heated Preparation Prep Date/Time: 09/18/2019 09										Time:09/18/2019 09:09			
Mercury		eijlm	Α	0.518	0.118	0.500	В	ng/L	1	09/19/2019 12:17			

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Analytical Results

Date: Monday, September 23, 2019

Client: Client Project:	Arcelor Mittal US/ LLHg - 001	A, Inc.										
Client Sample ID:							Work	Order/ID:	1910694-03			
Sample Description: 001								Samp	ed:	09/12/2019 8:00		
Matrix:	Aqueous							Receiv	ved:	09/12/2019 10:00		
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed		
Method: EPA 1631E										Analyst: BTM		
Total Mercury using CVAFS - Heated Preparation Prep Date/Time: 09/18/2019										Time:09/18/2019 09:09		
Mercury		eijlm	Α	0.435	0.118	0.500	BJ	ng/L	1	09/19/2019 12:19		

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

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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)
- ¹ North Carolina DENR NPDES effluent, surface water (#597)
- ^m New York State Department of Health (#12006)

FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

в:	The target analyte was detected in the method blank at or above the reported quantitation limit.
J:	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
MDL:	Minimum Detection Limit
RL:	Reporting Limit
RPD:	Relative Percent Difference

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

CHAIN OF CUSTODY RECORD Number 151897 Instructions on back	<i>TO BE COMPLETED BY MICROBAC</i> Temperature Upon Receipt (°C) Therm ID Holding Time		Clevel 3 Clevel 4 EDD	?] Yes] No) Unpreserved	191 TO694	10-	-02		Return Carchive Date/Time	, interview of the second s	Date/Time	DA-12-19 1000 Page L of F
CHAIN Number Instructio	usiness days)		Level 1 Level 2 e-mail (address)	Compliance Monitoring?	Sampler Phone No.: 769.8378	Water (WW), Other (specify) dium Thiosulfate, (9) Hexane, (U)					Dispose as appropriate Rei Received By (signature)		Keceived By (signature)	Received By (signature)
	Turnaround Time	(needed by) Report Type	Send Invoice via: Mail Fax	PO No.:	· Oto Sampler Pl	(DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify) inc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved	Dreservative				Sample Disposition Date/Timp	9/12/19 1000	Date/ IIme	Date/Time
	Invoice Address Client Name: Address:	City, State, Zip: Contact:	l elephone No.:	Location:	Sampler Signature:	pe, Drinking Water (DW), Groundwat Cl, (4) NaOH, (5) Zinc Acetate, (6) N	Alactrix Matrix Matrix	1 2520	0800 D802		Non-Hazardous Radioactive Relinquished By (signature)	12. Otto	kelinquished by (signature)	Relinquished By (signature)
ROBAC*	Address e: AM B (H	. Zip:	t via:		/(PRINT): B. Off 0	 Matrix Types: Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water ** Preservative Types: (1) HNO3, (2) H2SO4, (3) HCl, (4) NaOH, (5) Z 	Date Collected Collected	179162	001 Dup 179167		Possible Hazard Identification Hazardous Nor Comments			:017
1910694 Ca ArcelorMittal - LLHg - 001 09/12/2019	arey Gadzala	r. IN				**	Lab L				Possible Haz Comments	Pa	ge 9	ev.12/26/2017