

Work Order No.: 19H1487

August 29, 2019

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

Re: Daily

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 22 sample(s) on 8/23/2019 10:00:00AM for the analyses presented in the following report as Work Order 19H1487.

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.

Carry Hadgala

Carey Gadzala Project Manager



WORK ORDER SAMPLE SUMMARY

Client: Arcelor Mittal USA, Inc.

Project: Daily Lab Order: 19H1487

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
19H1487-01	011-Composite	011	08/22/2019 06:08	8/23/2019 10:00:00AM
19H1487-02	011-Grab	011	08/22/2019 06:08	8/23/2019 10:00:00AM
19H1487-03	001-Composite	001	08/22/2019 06:21	8/23/2019 10:00:00AM
19H1487-04	001-Grab	001	08/22/2019 06:21	8/23/2019 10:00:00AM
19H1487-05	031-Grab	031	08/23/2019 06:43	8/23/2019 10:00:00AM
19H1487-06	Mixed Liquor-Grab	Mixed Liquor	08/23/2019 06:45	8/23/2019 10:00:00AM
19H1487-07	J-Box-Grab	J-Box	08/23/2019 06:40	8/23/2019 10:00:00AM
19H1487-08	WWII-Grab	WWII	08/23/2019 07:00	8/23/2019 10:00:00AM
19H1487-09	Coldwell-Grab	Coldwell	08/23/2019 07:16	8/23/2019 10:00:00AM
19H1487-10	RSB FT Overflow-Grab	RSB FT Overflow	08/23/2019 07:21	8/23/2019 10:00:00AM
19H1487-11	RSB FT Influent-Grab	RSB FT Influent	08/23/2019 07:22	8/23/2019 10:00:00AM
19H1487-12	BFTD-Grab	BFTD	08/23/2019 07:44	8/23/2019 10:00:00AM
19H1487-13	999-Grab	999	08/23/2019 07:29	8/23/2019 10:00:00AM
19H1487-14	BFTC-Grab	BFTC	08/23/2019 07:48	8/23/2019 10:00:00AM
19H1487-15	002-Grab	002	08/22/2019 07:53	8/23/2019 10:00:00AM
19H1487-16	WAL-Grab	WAL	08/22/2019 08:04	8/23/2019 10:00:00AM
19H1487-17	CM1-Grab	CM1	08/23/2019 00:00	8/23/2019 10:00:00AM
19H1487-18	CM2-Grab	CM2	08/23/2019 00:00	8/23/2019 10:00:00AM
19H1487-19	CM6-Grab	CM6	08/23/2019 00:00	8/23/2019 10:00:00AM
19H1487-20	HM1-Grab	HM1	08/23/2019 00:00	8/23/2019 10:00:00AM
19H1487-21	HM2-Grab	HM2	08/23/2019 00:00	8/23/2019 10:00:00AM
19H1487-22	HM3-Grab	HM3	08/23/2019 00:00	8/23/2019 10:00:00AM

Thursday, August 29, 2019

Date:



Client: Client Project:	Arcelor Mittal USA, Inc. Daily	Work Order:	19H1487
Client Sample ID:	011-Grab	Work Order/ID:	19H1487-02
Sample Description:	011	Sampled:	08/22/2019 06:08
Matrix:	Aqueous	Received:	08/23/2019 10:00
Analyses		Result	Units
FLD_CL_TITR		0.00	mg/L
рН		7.8	pH Units
Client Sample ID:	001-Grab	Work Order/ID:	19H1487-04
Sample Description:	001	Sampled:	08/22/2019 06:21
Matrix:	Aqueous	Received:	08/23/2019 10:00
Analyses		Result	Units
FLD_CL_TITR		0.00	mg/L
рН		7.8	pH Units
Client Sample ID:	J-Box-Grab	Work Order/ID:	19H1487-07
Sample Description:	J-Box	Sampled:	08/23/2019 06:40
Matrix:	Aqueous	Received:	08/23/2019 10:00
Analyses		Result	Units
рН		8.5	pH Units
Client Sample ID:	RSB FT Overflow-Grab	Work Order/ID:	19H1487-10
Sample Description:	RSB FT Overflow	Sampled:	08/23/2019 07:21
Matrix:	Aqueous	Received:	08/23/2019 10:00
Analyses		Result	Units
pН		9.0	pH Units
Client Sample ID:	999-Grab	Work Order/ID:	19H1487-13
Sample Description:	999	Sampled:	08/23/2019 07:29
Matrix:	Aqueous	Received:	08/23/2019 10:00
Analyses		Result	Units
рН		8.1	pH Units
Client Sample ID:	002-Grab	Work Order/ID:	19H1487-15
Sample Description:	002	Sampled:	08/22/2019 07:53
Matrix:	Aqueous	Received:	08/23/2019 10:00
Analyses		Result	Units
pН		8.3	pH Units
Client Sample ID:	WAL-Grab	Work Order/ID:	19H1487-16
Sample Description:	WAL	Sampled:	08/22/2019 08:04
Matrix:	Aqueous	Received:	08/23/2019 10:00
Analyses		Result	Units
pН		9.1	pH Units



Field Results

Date: Thursday, August 29, 2019



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 011-Composite
 Work Order/ID:
 19H1487-01

 Sample Description:
 011
 Sampled:
 08/22/2019
 6:08

 Matrix:
 Aqueous
 Received:
 08/23/2019
 10:00

Ar	nalyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: E	PA 200.7 Re	v 4.4			Ar	nalyst: BTM
To	tal Recoverable Metals by ICP								Prep Date	Time: 08/23/2019 11:18
	Lead	eij	Α	0.0033	0.0033	0.0075	J	mg/L	1	08/23/2019 13:46
	Zinc	eij	Α	0.0096	0.0073	0.020	J	mg/L	1	08/23/2019 13:46

			Method: S		Analyst: ABG				
Total Cyanide							I	Prep Date	/Time: 08/23/2019 11:24
Cyanide, Total	eij	Α	ND	0.0020	0.0050	U	mg/L	1	08/23/2019 14:04

 Method: SW-846 9014
 Analyst: ABG

 Free Cyanide
 Prep Date/Time: 08/23/2019 14:00

 Free Cyanide
 A
 ND
 0.0062
 mg/L
 1
 08/23/2019 16:04



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 011-Grab
 Work Order/ID:
 19H1487-02

 Sample Description:
 011
 Sampled:
 08/22/2019
 6:08

 Matrix:
 Aqueous
 Received:
 08/23/2019
 10:00

ΑT Result MDL RL Units DF **Analyses** Certs Qual Analyzed Method: SM 4500 H+ B-2000 Analyst: RJM Field pH Prep Date/Time: 08/22/2019 06:08 Α ND 0.100 pH at 25°C 08/22/2019 6:08 рН



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 001-Composite
 Work Order/ID:
 19H1487-03

 Sample Description:
 001
 Sampled:
 08/22/2019
 6:21

 Matrix:
 Aqueous
 Received:
 08/23/2019
 10:00

1,1111									
Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: EI	PA 200.7 Re	ev 4.4			An	alyst:BTM
Total Recoverable Metals by ICP								Prep Date/	Time: 08/23/2019 11:18
Lead	eij	Α	ND	0.0033	0.0075	U	mg/L	1	08/23/2019 13:51
Zinc	eij	Α	0.0073	0.0073	0.020	J	mg/L	1	08/23/2019 13:51
			Method: SI	M 4500-CN	C/E-1999			An	alyst: ABG
Total Cyanide								Prep Date/	Time: 08/23/2019 11:24
Cvanide Total	eii	Α	ND	0.0020	0.0050	U	ma/L	1	08/23/2019 14:06

		Method: SV		Analyst: ABG		
Free Cyanide					Prep Date	Time: 08/23/2019 14:00
Free Cyanide	А	ND	0.0062	mg/L	1	08/23/2019 15:54

 Method: EPA 350.1 Rev 2.0
 Analyst: ABG

 Nitrogen, Ammonia as N
 Prep Date/Time: 08/23/2019 10:38

 Nitrogen, Ammonia (As N)
 ei
 A
 0.34
 0.054
 0.10
 mg/L
 1
 08/23/2019 13:28



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 001-Grab
 Work Order/ID:
 19H1487-04

 Sample Description:
 001
 Sampled:
 08/22/2019
 6:21

 Matrix:
 Aqueous
 Received:
 08/23/2019
 10:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: S	M 4500 H+	B-2000			An	alyst: RJM
Field pH								Prep Date/	Time: 08/22/2019 06:21
pH		Α	ND		0.100	U	pH at 25°C	1	08/22/2019 6:21



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 031-Grab
 Work Order/ID:
 19H1487-05

 Sample Description:
 031
 Sampled:
 08/23/2019
 6:43

 Matrix:
 Aqueous
 Received:
 08/23/2019
 10:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: S	M 5210 B-20	01			Ana	lyst: EF
Biochemical Oxygen Demand								Prep Date/T	ime:08/23/2019 16:27
Biochemical Oxygen Demand	eij	Α	ND	2.0	2.0	U	mg/L	1	08/28/2019 18:11
			Method: S	M 2540 D-19	97			Ana	alyst: KMT
Total Suspended Solids								Prep Date/T	ime:08/23/2019 11:23
Total Suspended Solids	eij	Α	3.3	1.0	1.0		mg/L	1	08/23/2019 12:40



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 Mixed Liquor-Grab
 Work Order/ID:
 19H1487-06

 Sample Description:
 Mixed Liquor
 Sampled:
 08/23/2019
 6:45

 Matrix:
 Aqueous
 Received:
 08/23/2019
 10:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: S	M 2540 F-19	97			Ana	alyst: DAT
Settleable Solids								Prep Date/1	ime:08/23/2019 10:44
Settleable Solids	i	Α	180	1.0	1.0	ml/L		1	08/23/2019 10:44
			Method: S	M 2540 D-19	97			Ana	alyst: KMT
Total Suspended Solids								Prep Date/1	ime:08/23/2019 11:23
Total Suspended Solids	eij	Α	1800	1.0	1.0	mg/L		1	08/23/2019 12:40



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 J-Box-Grab
 Work Order/ID:
 19H1487-07

 Sample Description:
 J-Box
 Sampled:
 08/23/2019
 6:40

 Matrix:
 Aqueous
 Received:
 08/23/2019
 10:00

7.194.004.0							. 10001	10 4.	00:20:20:0
Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: SI	M 4500 H+ I	B-2000			An	alyst: RJM
Field pH								Prep Date/	Time: 08/23/2019 06:40
pH		Α	ND		0.100	U	pH at 25°C	1	08/23/2019 6:40
			Method: E	PA 350.1 Re	ev 2.0			An	alyst: ABG
Nitrogen, Ammonia as N								Prep Date/	Time: 08/23/2019 10:38
Nitrogen, Ammonia (As N)	ei	Α	0.25	0.054	0.10		mg/L	1	08/23/2019 13:40
			Method: EI	PA 420.4 Re	ev 1.0			An	alyst: ABG
Total Phenolics								Prep Date/	Time: 08/23/2019 11:30
Phenolics, Total Recoverable	eij	Α	ND	0.0060	0.010	U	mg/L	1	08/23/2019 14:26
			Method: S	M 2540 D-19	997			An	alyst: KMT
Total Suspended Solids								Prep Date/	Time: 08/23/2019 11:23
Total Suspended Solids	eij	Α	14	1.0	1.0		mg/L	1	08/23/2019 12:40



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 WWII-Grab
 Work Order/ID:
 19H1487-08

 Sample Description:
 WWII
 Sampled:
 08/23/2019
 7:00

 Matrix:
 Aqueous
 Received:
 08/23/2019
 10:00

ΑT Result MDL RL Units DF **Analyses** Certs Qual Analyzed Method: SM 4500-CN C/E-1999 Analyst: ABG **Total Cyanide** Prep Date/Time: 08/23/2019 11:24 A 0.017 0.0020 0.0050 mg/L 08/23/2019 14:08 Cyanide, Total eij



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 Coldwell-Grab
 Work Order/ID:
 19H1487-09

 Sample Description:
 Coldwell
 Sampled:
 08/23/2019
 7:16

 Matrix:
 Aqueous
 Received:
 08/23/2019
 10:00

Matrix:	Aqueous						Re	ceived:	08/23/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual Un	its DF	Analyzed
				Method:	EPA 200.7 Re	v 4.4		Ai	nalyst: RPL
Total Recoverab	le Metals by ICP							Prep Date	/Time:08/26/2019 08:26
Lead		eij	Α	0.10	0.0033	0.0075	mg/L	1	08/27/2019 10:27
Zinc		eij	Α	0.63	0.0073	0.020	mg/L	1	08/27/2019 10:27
				Method:	SM 4500-CN	C/E-1999		Aı	nalyst: ABG
Total Cyanide								Prep Date	/Time:08/23/2019 11:24
Cyanide, Total		eij	Α	0.067	0.0020	0.0050	mg/L	1	08/23/2019 14:09
				Method:	EPA 350.1 Re	v 2.0		Aı	nalyst: ABG
Nitrogen, Ammo	onia as N							Prep Date	/Time: 08/23/2019 10:38
				1					

Nitrogen, Ammonia as N

Nitrogen, Ammonia (As N)

ei A 42

0.54

Method: SM 2540 D-1997

Analyst: KMT



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 RSB FT Overflow-Grab
 Work Order/ID:
 19H1487-10

 Sample Description:
 RSB FT Overflow
 Sampled:
 08/23/2019
 7:21

 Matrix:
 Aqueous
 Received:
 08/23/2019
 10:00

7.194.004.0								···	00:20:20:0
Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: S	M 4500 H+	B-2000			An	alyst: RJM
Field pH								Prep Date/	Time: 08/23/2019 07:21
рН		Α	ND		0.100	U	pH at 25°C	1	08/23/2019 7:21
			Method: E	PA 200.7 Re	ev 4.4			An	alyst: RPL
Total Recoverable Metals by ICP								Prep Date/	Time: 08/26/2019 08:26
Lead	eij	Α	0.044	0.0033	0.0075		mg/L	1	08/27/2019 10:32
			Method: E	PA 350.1 Re	ev 2.0			An	alyst: ABG
Nitrogen, Ammonia as N								Prep Date/	Time: 08/23/2019 10:38
Nitrogen, Ammonia (As N)	ei	Α	6.3	0.054	0.10		mg/L	1	08/23/2019 13:45
			Method: S	M 2540 D-1	997			An	alyst: KMT
Total Suspended Solids								Prep Date/	Time: 08/23/2019 11:23
Total Suspended Solids	eij	Α	22	1.0	1.0		mg/L	1	08/23/2019 12:40



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 RSB FT Overflow-Grab
 Work Order/ID:
 19H1487-10RE2

 Sample Description:
 RSB FT Overflow
 Sampled:
 08/23/2019
 7:21

 Matrix:
 Aqueous
 Received:
 08/23/2019
 10:00

Certs ΑT Result MDL RL Units DF **Analyses** Qual Analyzed Method: EPA 200.7 Rev 4.4 Analyst: RPL **Total Recoverable Metals by ICP** Prep Date/Time: 08/26/2019 08:26 A 0.10 0.0073 0.020 mg/L 08/28/2019 11:01 eij



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

Client Sample ID:RSB FT Influent-GrabWork Order/ID:19H1487-11Sample Description:RSB FT InfluentSampled:08/23/20197:22Matrix:AqueousReceived:08/23/201910:00

Certs ΑT Result MDL RL Units DF **Analyses** Qual Analyzed Method: SM 2540 D-1997 Analyst: KMT **Total Suspended Solids** Prep Date/Time: 08/23/2019 11:23 08/23/2019 12:40 A 14000 1.0 1.0 mg/L Total Suspended Solids eij



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 BFTD-Grab
 Work Order/ID:
 19H1487-12

 Sample Description:
 BFTD
 Sampled:
 08/23/2019
 7:44

 Matrix:
 Aqueous
 Received:
 08/23/2019
 10:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: §	SM 2540 D-1	997			Anal	lyst: KMT
Total Suspended Solids								Prep Date/Ti	me:08/23/2019 11:23
Total Suspended Solids	eij	A 7	77	1.0	1.0	m	ng/L	1	08/23/2019 12:40



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 999-Grab
 Work Order/ID:
 19H1487-13

 Sample Description:
 999
 Sampled:
 08/23/2019
 7:29

 Matrix:
 Aqueous
 Received:
 08/23/2019
 10:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: S	M 4500 H+	B-2000			An	alyst: RJM
Field pH								Prep Date/	Time: 08/23/2019 07:29
pH		Α	ND		0.100	U	pH at 25°C	1	08/23/2019 7:29
	·								

 Method: SM 2540 D-1997
 Analyst: KMT

 Total Suspended Solids
 eij
 A 3.7
 1.0
 1.0
 mg/L
 1
 08/23/2019 12:40



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 BFTC-Grab
 Work Order/ID:
 19H1487-14

 Sample Description:
 BFTC
 Sampled:
 08/23/2019
 7:48

 Matrix:
 Aqueous
 Received:
 08/23/2019
 10:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method:	SM 2540 D-1	997			Ana	alyst: KMT
Total Suspended Solids								Prep Date/1	Time:08/23/2019 11:23
Total Suspended Solids	eij	Α .	32	1.0	1.0	mg/L	-	1	08/23/2019 12:40



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 002-Grab
 Work Order/ID:
 19H1487-15

 Sample Description:
 002
 Sampled:
 08/22/2019
 7:53

 Matrix:
 Aqueous
 Received:
 08/23/2019
 10:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: S	SM 4500 H+	B-2000			Ana	lyst:RJM
Field pH								Prep Date/Ti	me:08/22/2019 07:53
pH		Α	ND		0.100	U	pH at 25°C	1	08/22/2019 7:53



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 WAL-Grab
 Work Order/ID:
 19H1487-16

 Sample Description:
 WAL
 Sampled:
 08/22/2019
 8:04

 Matrix:
 Aqueous
 Received:
 08/23/2019
 10:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: SI	M 4500 H+	B-2000			Analyst: RJM		
Field pH								Prep Date/Time: 08/22/2019 08:04		
pH		Α	ND		0.100	U	pH at 25°C	1	08/22/2019 8:04	
									- h - t 161-	

 Method: SM 2540 D-1997
 Analyst: KMT

 Total Suspended Solids
 eij
 A
 10
 1.0
 1.0
 mg/L
 1
 08/23/2019
 12:40



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 CM1-Grab
 Work Order/ID:
 19H1487-17

 Sample Description:
 CM1
 Sampled:
 08/23/2019
 0:00

 Matrix:
 Aqueous
 Received:
 08/23/2019
 10:00

ΑT Result MDL RL Units DF **Analyses** Certs Qual Analyzed Method: SM 2540 D-1997 Analyst: KMT **Total Suspended Solids** Prep Date/Time: 08/23/2019 11:23 08/23/2019 12:40 A 14 1.0 1.0 mg/L Total Suspended Solids eij



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 CM2-Grab
 Work Order/ID:
 19H1487-18

 Sample Description:
 CM2
 Sampled:
 08/23/2019
 0:00

 Matrix:
 Aqueous
 Received:
 08/23/2019
 10:00

ΑT Result MDL RL Units DF **Analyses** Certs Qual Analyzed Method: SM 2540 D-1997 Analyst: KMT **Total Suspended Solids** Prep Date/Time: 08/23/2019 11:23 08/23/2019 12:40 A 11 1.0 1.0 mg/L Total Suspended Solids eij



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 CM6-Grab
 Work Order/ID:
 19H1487-19

 Sample Description:
 CM6
 Sampled:
 08/23/2019
 0:00

 Matrix:
 Aqueous
 Received:
 08/23/2019
 10:00

ΑT Result MDL RL Units DF **Analyses** Certs Qual Analyzed Method: SM 2540 D-1997 Analyst: KMT **Total Suspended Solids** Prep Date/Time: 08/23/2019 11:23 08/23/2019 12:40 A 10 1.0 1.0 mg/L Total Suspended Solids eij



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 HM1-Grab
 Work Order/ID:
 19H1487-20

 Sample Description:
 HM1
 Sampled:
 08/23/2019
 0:00

 Matrix:
 Aqueous
 Received:
 08/23/2019
 10:00

ΑT Result MDL RL Units DF **Analyses** Certs Qual Analyzed Method: SM 2540 D-1997 Analyst: KMT **Total Suspended Solids** Prep Date/Time: 08/23/2019 11:23 08/23/2019 12:40 A 16 1.0 1.0 mg/L Total Suspended Solids eij



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 HM2-Grab
 Work Order/ID:
 19H1487-21

 Sample Description:
 HM2
 Sampled:
 08/23/2019
 0:00

 Matrix:
 Aqueous
 Received:
 08/23/2019
 10:00

ΑT Result MDL RL Units DF **Analyses** Certs Qual Analyzed Method: SM 2540 D-1997 Analyst: KMT **Total Suspended Solids** Prep Date/Time: 08/23/2019 11:23 08/23/2019 12:40 A 14 1.0 1.0 mg/L Total Suspended Solids eij



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 HM3-Grab
 Work Order/ID:
 19H1487-22

 Sample Description:
 HM3
 Sampled:
 08/23/2019
 0:00

 Matrix:
 Aqueous
 Received:
 08/23/2019
 10:00

ΑT Result MDL RL Units DF **Analyses** Certs Qual Analyzed Method: SM 2540 D-1997 Analyst: KMT **Total Suspended Solids** Prep Date/Time: 08/23/2019 11:23 08/23/2019 12:40 A 12 1.0 1.0 mg/L Total Suspended Solids eij

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

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

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)

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

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



Chain of Custody ArcelorMittal Burns Harbor/Microbac Labs

Friday

Lab Work No: 19H 1487

* Date Obtained ** Sample Date:

Location	Time	Samp <u>le</u> r	Type	Preserved	Cooled	Containers			D	Ι
	11110			Ticscrved	Cooled	Type	Qty	Vol. (ml)	Parameters	Comments
011 **	06:08	(i)	Comp	No	Yes	Glass	1	4000		01
	DEDO		Grab	No	No	Plastic	1	125	pН	02
001 **	12/		Comp	No	Yes	Glass	1	4000	NH3	03
	P		Grab	No	No	Plastic	1	125	рH	04
031 *	06:43		Grab	No	No	Plastic	1	1000	TSS	05
	86.13		Grab	No	No	Plastic	1	1000	BOD	¥
Mixed Liquor *	06:45		Grab	No	No	Plastic	1	2000	TSS, Settling	06
J-Box *	06:40		Grab	No	No	Glass	2	1000	NH3, Phenol, TSS, pH	07
DIW-131 *			Grab	No	No	Plastic	1	125	ρΗ	> <
WWII *	07:00		Grab	No	No	Plastic	1	1000	Cn	08
Coldwell	07:16		Grab	No	No	Plastic	2	2000	NH3, CN, Pb, Zn, TSS	09
RSB FT Overflow *	07:21		Grab	No	No	Plastic	2	1000	NH3, pH, TSS, Pb, Zn	10
RSB FT Influent *	07:22		Grab	No	No	Plastic	1	500	TSS	11
BFTD *	07:44		Grab	No	No	Plastic	1	500	TSS	12
999 *	07:29		Grab	No	No	Plastic	1	500	TSS, pH	13
BFTC *	07:48		Grab	No	No	Plastic	1	500	TSS	14
002 **	07:53		Grab	No	No	Plastic	1	125	На	15
WAL 1 **	08:04		Grab	No	No	Glass	1	1000	TSS, pH	16
WAL 2 **	5-D		Grab	No	No	Glass	1	1000	TSS, pH	
WAL 3 **	08:04		Grab	No	No	Glass	1	1000	TSS, pH	$\overline{\geq}$
SWTP*	44	****	Grab	No	No	Plastic	16	1000	TSS	17-22

*** WPL is for previous sample date

**** Sample collected by Water Process personnel

No cm 3

6.5

Env 5x Rev. 14 07/01/16 (TEK)

Carey Gadzala ArcelorMittal - Burns Harbor, IN Daily 08/23/2019



Microbac Laboratories, Inc. - Chicagoland Division

Total Residual Chlorine - Amperometric Titration - SM Method 4500-CI E - 2000 for Arcelor Mittal - Burns Harbor

	1 1				STD ID / Lot #	Exp. Date	
Date/Time:	Date/Time: 8/22/19 0750	•		K1 Solution.	VI Solution: 146367	6/30/10	
Analyst:	ph.			Acatata buffer 146366	146366	2/25/20	
## #	7-1-7	Exp. Date		Acetate Duiter.	2110	02/120	
pH Paper Lot #:		(1/20		PAO Titrant:	145748	2/"	
.CI SOT	LCS ID: A 40 74	(1)		Titrant Ston	Titrant Vol.	Result	
Sample	Sample Vol.		I Ifrant Start	(ml.)	(mL)	(mg/L)	
Q	(mL)	pH (pH Units)	(IIIL)		0.00	0.00	
	00%	4.0	00.0	0.00			
Blank		7 7	_	0.10	4.10		
CS	,	1,0		000	0.00	0.00	
O.:#5.11 004		4.0			000	00.0	
Outlail oo i		2		0.00			
Outfall 002		7,0		00.0	9.0	0,00	
Ouffall 003		4.0		000	00.0	0.00	
O. #50!! 04.4		4,0			00.0	0.00	
		20	-	0.00	3	6	
Outfall 011 Dup			<u></u>	0.00	000	0.00	=
Ouffall 007 Dup	>	2,0	>				

,					STD ID / Lot #	Exp. rate
Date/Time:	Date/Time: 9/23/19 08/00			VI Solution.	7967 Pt. Johnson	6/30/20
	0 00			Z colution:	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	02/52/2
Analyst	- 1	, 	Ø	cetate buffer.	Acetate buffer. 146566	- 4,21,7
pH Paper Lot #:	47626	Exp. Date		DAO Titrant	145348	5/31/20
		02/11				Docult
		+0c+1	Titrant Start Tit	Fitrant Stop	Titrant Vol.	SOCIAL STATE OF THE STATE OF TH
Sample	Sample Vol.			. (lm)	(ml)	(mg/L)
	(ml)	pH (pH Units)		1	00.0	0000
	200	0,00		0.00	1	J
Blank	200	9 F		0 0 7	0.07	0.00
00		6,7			00.0	00.00
		2		0000		
Outfall 001		٤		00.0	000	0 . 0
000 11-31-0		4,0	2			00.
Outrail 002		7	2	0.00	5	
Outfall 003		3	C	0 0	00.0	00.0
O 1150		4.0	3		80.0	0.00
Cultail 0.1.1			0	000	3	6
Outfall 011 Dup		4, 6		00.0	e o · o	0 - 0 0
	<u> </u>	0.7	`			
Outfall 605 Dup		(m 0)(0 m = 0) / ()			revis	revision: a_01_2016

Chlorine, mg/L = (Titrant Vol., mL) (200 mL) / (Sample Vol., mL)

Burns Harbor Contractor timesheet

ST OT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT DT	Craft ST OT Craft ST OT Total hours this sheet Previous hours Total hours to date The hox to the right of each abbreviation See re	Description of work 2 Last name First name First name First name First name Craft ST OT DI DI Shift start time Shift end time Total hours this sheet Total hours to date Total hours to date
iheet (nours date (Total hours this sheet Previous hours Total hours to date	Total I

representative responsible for the work and discuss the work to be performed and any specific safety requirements.

8 Responsible Person 9 **ArcelorMittal** A/N N/A Yes Yes 38) Energized electrical work 74 39) Excavation / drilling 15) Can we slip or trip on anything (including travel to and from the job)? 37) Confined space Date The named contractor or work crew is cleared to perform the job described herein: 18) Has equipment been inspected prior to use? (tools, PPE, mobile Cell 40) Hot work Clinic pickup point 11) Could someone get hurt as a result of a fall from height? 41) Other Permits Controls 12) Can something fall and/or strike me or someone else? 5. PPE 10) Could someone be caught in or between anything? Hierarchy of Controls 1. Elimination 2. Substitution 3. Engineering 4. Administrative 8 4883 7 13) Is everyone properly trained for this job? 14) Are flags and derails in place if needed? 16) Have all affected people been notified? N/A 17) Can we strain or overexert ourselves? Yes For each job, and before starting work at the job site, a contractor representative must meet face to face with the ArcelorMittal Hazard # ArcelorMittal representative phone number_ 33) Asbestos 36) Sewers 35) Lasers ArcelorMittal representative department 34) Noise Responsible Person equipment, etc.) B. 0+40 taces Yes N/A No ArcelorMittal representative Sur 100 29) Scaffold work 307246 Daily work authorization form for all visiting workers Š 31) Barricades Explosives 32) Radiation LACUCA MA Controls Yes Samples Yes N/A No 9) Is someone working on or near energized electrical equipment (motor control 8168-692 4) Are there adjacent work crews exposed (including ArcelorMittal employees)? 8) Is there a potential for exposure (chemical, radiation, laser, temperature)? 25) Production hazards 26) Material handling 27) Crane and rigging 28) Overhead work (24) Housekeeping Hazard # 20 N 1) Are emergency evacuation areas identified and known? 2) Is there a current and valid isolation (LOTO) procedure? Caprola Other Hazards and Considerations for Discussion 5) Are there potential hazards or high risk job steps? 4042 Microbac Labs 3) Will everyone apply a personal safety lock? Yes N/A No 6) Do we have the correct tools for the job? Company contact/phone no Carey rooms, overhead power lines, etc.)? Location and project/job description 20) Vehicle / mob equip traffic 19) Pneumatic air tools & lines 21) Gas hazards-CO, CO2, etc. 7) Is additional PPE required? 22) Hot process, metal, temp. 23) Pressurized / steam pipe Visiting worker name (print) Company name___ HIRAC-Lite Section 2 Section 3

My crew and I are familiar with the safety hazards/considerations for this job. We are prepared to perform the work in a safe "workmanship" like manner. I have reviewed these considerations with the ArcelorMittal representative named below.

Ensure form is fully completed prior to signing) Original to contractor, (1) copy to AreclorMittal representative ArcelorMittal representative_

Contractor or crew leader

Controlled by Maintenance Administration Dept. ArceRABEaP सिमिडि निर्मिण Replacement rep/phone_

2016-04-BH-DailyWorkAuthorization

pH - METHOD 9045D Arcelor Mittal /Burns Harbor NPDES

Sample ID		pН	Analyst	Date/Time of Analysis
Buffer ID:	4: 185909	7: 188312	10: 187680	
Meter ID:		100/12		
Calibration	(4) (D) (D)		BAO	8/23/19 0800
ICV	4 (0)/ 10	698		,
Slope		98.2		
Lake 999		8.10		
Location 001		7.78		
Location 002		8.33		
Location 011		7.77		
WAL 1		9.08		
WAL 2				
SWTP J-Box		8-45	i	
DIW 131	<u> </u>			
RSB		9.00		
Dup- JBOX		8.43		
CCV		7.01	V	
				,
				·

Sample ID		pН	Analyst	Date/Time of Analysis
Buffer ID:	4:	. 7:	10:	
Meter ID:				
Calibration	4 / 7 / 10			
ICV	4 / 7 / 10			
Slope			\$	
Lake 999				
Location 001				
Location 002				
Location 011				
WAL 1				
WAL 2				
SWTP J-Box			·	
DIW 131				
RSB				
Dup-				
CCV				
	-			
	·			