

September 11, 2019

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

Work Order No.: 19H1299

Re: Daily

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 26 sample(s) on 8/21/2019 10:00:00AM for the analyses presented in the following report as Work Order 19H1299.

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.



WORK ORDER SAMPLE SUMMARY

Daily

Arcelor Mittal USA, Inc.

Client:

Project:

Lab Order: 19H1	299			
Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
19H1299-01	011-Composite	011	08/20/2019 05:25	8/21/2019 10:00:00AM
19H1299-02	011-Grab	011	08/20/2019 05:25	8/21/2019 10:00:00AM
19H1299-03	001-Composite	001	08/20/2019 06:00	8/21/2019 10:00:00AM
19H1299-04	001-Grab	001	08/20/2019 06:00	8/21/2019 10:00:00AM
19H1299-05	031-Grab	031	08/21/2019 06:12	8/21/2019 10:00:00AM
19H1299-06	Mixed Liquor-Grab	Mixed Liquor	08/21/2019 06:14	8/21/2019 10:00:00AM
19H1299-07	J-Box-Grab	J-Box	08/21/2019 06:10	8/21/2019 10:00:00AM
19H1299-08	WWII-Grab	WWII	08/21/2019 06:51	8/21/2019 10:00:00AM
19H1299-09	Coldwell-Grab	Coldwell	08/21/2019 07:03	8/21/2019 10:00:00AM
19H1299-10	RSB FT Overflow-Grab	RSB FT Overflow	08/21/2019 07:08	8/21/2019 10:00:00AM
19H1299-11	RSB FT Influent-Grab	RSB FT Influent	08/21/2019 07:09	8/21/2019 10:00:00AM
19H1299-12	BFTD-Grab	BFTD	08/21/2019 07:34	8/21/2019 10:00:00AM
19H1299-13	WPL-Grab	WPL	08/21/2019 07:15	8/21/2019 10:00:00AM
19H1299-14	999-Grab	999	08/21/2019 07:20	8/21/2019 10:00:00AM
19H1299-15	BFTC-Grab	BFTC	08/21/2019 07:39	8/21/2019 10:00:00AM
19H1299-16	002-Composite	002	08/20/2019 07:46	8/21/2019 10:00:00AM
19H1299-17	002-Grab	002	08/20/2019 07:46	8/21/2019 10:00:00AM
19H1299-18	WAL-Grab	WAL	08/20/2019 07:56	8/21/2019 10:00:00AM
19H1299-20	CM1-Grab	CM1	08/21/2019 00:00	8/21/2019 10:00:00AM
19H1299-21	CM2-Grab	CM2	08/21/2019 00:00	8/21/2019 10:00:00AM
19H1299-22	CM3-Grab	CM3	08/21/2019 00:00	8/21/2019 10:00:00AM
19H1299-23	CM6-Grab	CM6	08/21/2019 00:00	8/21/2019 10:00:00AM
19H1299-24	HM1-Grab	HM1	08/21/2019 00:00	8/21/2019 10:00:00AM
19H1299-25	HM2-Grab	HM2	08/21/2019 00:00	8/21/2019 10:00:00AM
19H1299-26	HM3-Grab	HM3	08/21/2019 00:00	8/21/2019 10:00:00AM



Field Results

Date: Wednesday, September 11, 2019

Client: Client Project:	Arcelor Mittal USA, Inc. Daily	Work Order:	19H1299
Client Sample ID:	011-Grab	Work Order/ID:	19H1299-02
Sample Description:	011	Sampled:	08/20/2019 05:25
Matrix:	Aqueous	Received:	08/21/2019 10:00
Analyses		Result	Units
FLD_CL_TITR		0.00	mg/L
рН		7.9	pH Units
Client Sample ID:	001-Grab	Work Order/ID:	19H1299-04
Sample Description:	001	Sampled:	08/20/2019 06:00
Matrix:	Aqueous	Received:	08/21/2019 10:00
Analyses		Result	Units
FLD_CL_TITR		0.00	mg/L
рН		7.9	pH Units
Client Sample ID:	J-Box-Grab	Work Order/ID:	19H1299-07
Sample Description:	J-Box	Sampled:	08/21/2019 06:10
Matrix:	Aqueous	Received:	08/21/2019 10:00
Analyses		Result	Units
рН		8.7	pH Units
Client Sample ID: Sample Description: Matrix:	RSB FT Overflow-Grab RSB FT Overflow Aqueous	Work Order/ID: Sampled: Received:	19H1299-10 08/21/2019 07:08 08/21/2019 10:00
Analyses		Result	Units
рН		8.9	pH Units
Client Sample ID:	999-Grab	Work Order/ID:	19H1299-14
Sample Description:	999	Sampled:	08/21/2019 07:20
Matrix:	Aqueous	Received:	08/21/2019 10:00
Analyses		Result	Units
рН		8.2	pH Units
Client Sample ID:	002-Grab	Work Order/ID:	19H1299-17
Sample Description:	002	Sampled:	08/20/2019 07:46
Matrix:	Aqueous	Received:	08/21/2019 10:00
Analyses		Result	Units
рН		8.4	pH Units
Client Sample ID:	WAL-Grab	Work Order/ID:	19H1299-18
Sample Description:	WAL	Sampled:	08/20/2019 07:56
Matrix:	Aqueous	Received:	08/21/2019 10:00
Analyses		Result	Units
рН		8.6	pH Units

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CASE NARRATIVE

Date: Wednesday, September 11, 2019

Client:	Arcelor Mittal USA, Inc.
Project:	Daily
Lab Order:	19H1299

Report has been revised at the clients request to include Cu and Ag for Outfall 001. 9/11/19

Analytical Results

Date: Wednesday, September 11, 2019

Client:	Arcelor Mittal USA	A, Inc.								
Client Project:	Daily									
Client Sample ID:	011-Composite							Work C	Order/ID:	19H1299-01
Sample Description:	011							Sample	ed:	08/20/2019 5:25
Matrix:	Aqueous							Receiv	ed:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: El	PA 200.7 Re	v 4.4				alyst:BTM
Total Recoverable Me	tals by ICP								Prep Date/	Time:08/21/2019 10:38
Lead		eij	Α	ND	0.0033	0.0075	U	mg/L	1	08/21/2019 13:56
Zinc		eij	A	0.011	0.0073	0.020		mg/L	1	08/21/2019 13:56
				Method: SI	M 4500-CN	C/E-1999			An	alyst: ABG
Total Cyanide									Prep Date/	Time:08/21/2019 10:45
Cyanide, Total		eij	Α	0.0072	0.0020	0.0050		mg/L	1	08/21/2019 13:58
				Method: S	N-846 9014				Δn	alyst: AJR
Free Cyanide				Method.	10-0-0 3014					Time:08/27/2019 12:44
Free Cyanide			Α	0.0083		0.0062		mg/L	1	08/27/2019 13:18
				Method: El	PA 350.1 Re	v 2.0			An	alyst: ABG
Nitrogen, Ammonia as	s N								Prep Date/	Time:08/21/2019 11:03
Nitrogen, Ammonia (A		ei	Α	0.32	0.054	0.10		mg/L	1	08/21/2019 13:06
				Method: El	PA 420.4 Re	v 1.0			An	alyst: ABG
Total Phenolics										Time:08/21/2019 14:37
Phenolics, Total Reco	verable	eij	Α	ND	0.0060	0.010	U	mg/L	1	08/21/2019 16:39
				Method: S	M 2540 D-19	997			An	alyst: KMT
Total Suspended Soli	ds									Time:08/21/2019 10:35
Total Suspended Solid		eij	Α	2.1	1.0	1.0		mg/L	1	08/21/2019 12:47

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Analytical Results

Client: Client Project:	Arcelor Mittal US Daily	SA, Inc.								
Client Sample ID:	011-Grab							Work	Order/ID:	19H1299-02
Sample Description:	011							Sampl	ed:	08/20/2019 5:25
Matrix:	Aqueous							Receiv	ved:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	PA 1664B				An	alyst: KMT
Oil & Grease (HEM) by	y SPE								Prep Date/	Time:08/21/2019 07:39
Oil & Grease (HEM)		eij	Α	NE	1.4	5.0	U	mg/L	1	08/21/2019 14:40

Analytical Results

Date: Wednesday, September 11, 2019

Client:	Arcelor Mittal US	A Inc								
Client Project:	Daily	73, 110.								
-	001-Composite							Wark	Order/ID:	19H1299-03
Client Sample ID:	001-Composite									08/20/2019 6:00
Sample Description:								Samp		
Matrix:	Aqueous							Receiv	ved:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: E	PA 200.7 R	ev 4.4				lyst:BTM
Total Recoverable Me	tals by ICP								· ·	ime:08/21/2019 10:38
Copper		eij	Α	0.0036	0.0013	0.010		mg/L	1	08/21/2019 14:01
Lead		eij	A	ND	0.0033	0.0075	U	mg/L	1	08/21/2019 14:01
Zinc		eij	A	ND	0.0073	0.020	U	mg/L	1	08/21/2019 14:01
				Method: E	PA 200.8 R	ev 5.4			Ana	lyst:BTM
Total Recoverable Me	tals by ICP/MS								Prep Date/T	ime:09/08/2019 12:49
Silver		eij	Α	ND	0.000053	0.00060	U	mg/L	1	09/09/2019 11:51
				Method: S	M 4500-CN	C/E-1999			Ana	lyst: ABG
Total Cyanide					III 4000-011	0/2-1000				ime:08/21/2019 10:45
Cyanide, Total		eij	Α	0.0028	0.0020	0.0050		mg/L	1	08/21/2019 14:00
				Method: S	W-846 9014	L			Ana	lyst:AJR
Free Cyanide										ime:08/27/2019 12:44
Free Cyanide			Α	ND		0.0062		mg/L	1	08/27/2019 13:19
				Method: E	PA 350.1 R	ev 2.0			Ana	lyst: ABG
Nitrogen, Ammonia as	s N									ime:08/21/2019 11:03
Nitrogen, Ammonia (A		ei	Α	0.31	0.054	0.10		mg/L	1	08/21/2019 13:13
				Method: E	PA 420.4 R	ev 1.0			Ana	lyst: ABG
Total Phenolics										ime:08/21/2019 14:37
Phenolics, Total Reco	verable	eij	Α	ND	0.0060	0.010	U	mg/L	1	08/21/2019 16:44
				Method: S	M 2540 D-1	997			Ana	lyst:KMT
Total Suspended Solid	ds				2040 0-1					ime:08/21/2019 10:35
Total Suspended Solid		eij	Α	1.6	1.0	1.0		mg/L	1	08/21/2019 12:47
		÷.j						5		

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Analytical Results

Client: Client Project:	Arcelor Mittal US Daily	A, Inc.								
Client Sample ID:	001-Grab							Work (Order/ID:	19H1299-04
Sample Description:	001							Sample	ed:	08/20/2019 6:00
Matrix:	Aqueous							Receiv	ed:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: E	PA 1664B				An	alyst: KMT
Oil & Grease (HEM) by	/ SPE								Prep Date/	Time:08/21/2019 07:39
Oil & Grease (HEM)		eij	Α	ND	1.4	5.0	U	mg/L	1	08/21/2019 14:40

Analytical Results

Client: Client Project:	Arcelor Mittal USA Daily	, Inc.								
Client Sample ID:	031-Grab							Work	Order/ID:	19H1299-05
Sample Description:	031							Sampl	ed:	08/21/2019 6:12
Matrix:	Aqueous							Receiv	ved:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: SI	M 9222 D-19	97			Ana	alyst: ORM
Fecal Coliform by Mer	nbrane Filtration								Prep Date/	Time:08/21/2019 11:21
Fecal Coliform		d	A	ND	1.0	1.0	U	CFU/100ml	1	08/21/2019 11:21
				Method: SI	M 5210 B-200	01			Ana	alyst: EF
Biochemical Oxygen I	Demand								Prep Date/	Time:08/21/2019 15:19
Biochemical Oxygen	Demand	eij	Α	ND	2.0	2.0	U	mg/L	1	08/26/2019 13:44
				Method: SI	M 2540 D-199	97			Ana	alyst: KMT
Total Suspended Solid	ds								Prep Date/	Time:08/21/2019 10:35
Total Suspended Solid	ls	eij	Α	5.4	1.0	1.0		mg/L	1	08/21/2019 12:47

Analytical Results

Client: Client Project:	Arcelor Mittal USA Daily	, Inc.								
Client Sample ID:	Mixed Liquor-Grat)						Work	Order/ID:	19H1299-06
Sample Description:	Mixed Liquor							Samp	ed:	08/21/2019 6:14
Matrix:	Aqueous							Receiv	ved:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 F-19	97			An	alyst: AMR
Settleable Solids									Prep Date/	Time: 08/21/2019 11:12
Settleable Solids		i	Α	120	1.0	1.0	r	nl/L	1	08/21/2019 11:12
				Method:	SM 2540 D-19	97			An	alyst: KMT
Total Suspended Solid	ds								Prep Date/	Time:08/21/2019 10:35
Total Suspended Solic	ls	eij	Α	1400	1.0	1.0	r	ng/L	1	08/21/2019 12:47

Analytical Results

Client: Client Project:	Arcelor Mittal USA Daily	, Inc.								
Client Sample ID:	J-Box-Grab							Work	Order/ID:	19H1299-07
Sample Description:	J-Box							Samp	ed:	08/21/2019 6:10
Matrix:	Aqueous							Receiv	ved:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: El	PA 350.1 Re	/ 2.0			Ana	alyst: ABG
Nitrogen, Ammonia as	N N								Prep Date/1	Time:08/21/2019 11:03
Nitrogen, Ammonia (A	s N)	ei	A	0.22	0.054	0.10	r	ng/L	1	08/21/2019 13:16
				Method: EI	PA 420.4 Rev	v 1.0			Ana	alyst: ABG
Total Phenolics									Prep Date/1	Time: 08/21/2019 14:37
Phenolics, Total Recov	verable	eij	A	ND	0.0060	0.010	Ur	ng/L	1	08/21/2019 16:46
	Method: SM 2540 D-1997 Analyst: KMT									
Total Suspended Solid	ls								Prep Date/1	Time:08/21/2019 10:35
Total Suspended Solid	S	eij	A	12	1.0	1.0	r	ng/L	1	08/21/2019 12:47

Analytical Results

Client: Client Project:	Arcelor Mittal US Daily	SA, Inc.								
Client Sample ID:	WWII-Grab							Work	Order/ID:	19H1299-08
Sample Description:	WWII							Sampl	ed:	08/21/2019 6:51
Matrix:	Aqueous							Receiv	ved:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	6M 4500-CN	C/E-1999			An	alyst: ABG
Total Cyanide									Prep Date/	Time:08/21/2019 10:45
Cyanide, Total		eij	Α	0.035	0.0020	0.0050		mg/L	1	08/21/2019 14:02

Analytical Results

Client: Client Project:	Arcelor Mittal USA Daily	, Inc.									
Client Sample ID:	Coldwell-Grab							Work C	order/ID:	19H1299-09	
Sample Description:	Coldwell							Sample	ed:	08/21/2019 7:03	
Matrix:	Aqueous							Receiv	ed:	08/21/2019 10:00	
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
				Method:	EPA 200.7 Re	ev 4.4			Ana	alyst: RPL	
Total Recoverable Me	tals by ICP								Prep Date/1	īme:08/22/2019 08:48	
Lead		eij	Α	0.053	0.0033	0.0075	r	ng/L	1	08/22/2019 13:29	
Zinc		eij	A	0.35	0.0073	0.020	r	mg/L	1	08/22/2019 13:29	
				Method:	6M 4500-CN	C/E-1999			Ana	alyst: ABG	
Total Cyanide									Prep Date/1	ime:08/21/2019 10:45	
Cyanide, Total		eij	Α	0.18	0.0020	0.0050	r	ng/L	1	08/21/2019 14:03	
				Method:	EPA 350.1 Re	ev 2.0			Ana	alyst: ABG	
Nitrogen, Ammonia as	s N								Prep Date/1	īme:08/21/2019 11:03	
Nitrogen, Ammonia (A	s N)	ei	Α	47	0.54	1.0	r	ng/L	1	08/21/2019 13:18	
	Method: SM 2540 D-1997 Analyst: KMT										
Total Suspended Solid	ds								Prep Date/1	ime:08/21/2019 10:35	
Total Suspended Solid	ls	eij	Α	51	1.0	1.0	I	ng/L	1	08/21/2019 12:47	

Analytical Results

Client: Client Project:	Arcelor Mittal USA Daily	A, Inc.								
Client Sample ID:	RSB FT Overflow-	-Grab					١	Nork Or	der/ID:	19H1299-10
Sample Description:	RSB FT Overflow						5	Sampled	I:	08/21/2019 7:08
Matrix:	Aqueous						F	Received	d:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual L	Jnits	DF	Analyzed
				Method:	PA 200.7 Re	v 4.4			Ana	alyst: RPL
Total Recoverable Met	tals by ICP							P	Prep Date/1	īme:08/22/2019 08:48
Lead		eij	Α	0.055	0.0033	0.0075	mg/L		1	08/22/2019 13:34
Zinc		eij	A	0.15	0.0073	0.020	mg/L		1	08/22/2019 13:34
				Method:	PA 350.1 Re	v 2.0			Ana	alyst: ABG
Nitrogen, Ammonia as	5 N							P	rep Date/1	ime:08/21/2019 11:03
Nitrogen, Ammonia (A	s N)	ei	Α	8.5	0.054	0.10	mg/L		1	08/21/2019 13:21
				Method:	M 2540 D-19	997			Ana	alyst: KMT
Total Suspended Solid	ds							P	rep Date/1	īme:08/21/2019 10:35
Total Suspended Solid	ls	eij	Α	20	1.0	1.0	mg/L		1	08/21/2019 12:47

Analytical Results

Client: Client Project:	Arcelor Mittal USA Daily	A, Inc.								
Client Sample ID:	RSB FT Influent-G	Grab						Work C	order/ID:	19H1299-11
Sample Description:	RSB FT Influent							Sample	ed:	08/21/2019 7:09
Matrix:	Aqueous							Receiv	ed:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: S	M 2540 D-1	997			An	alyst: KMT
Total Suspended Solid	ds								Prep Date/	Time:08/21/2019 10:35
Total Suspended Solid	ls	eij	Α	3200	1.0	1.0		mg/L	1	08/21/2019 12:47

Analytical Results

Client: Client Project:	Arcelor Mittal US Daily	SA, Inc.								
Client Sample ID:	BFTD-Grab							Work	Order/ID:	19H1299-12
Sample Description:	BFTD							Samp	led:	08/21/2019 7:34
Matrix:	Aqueous							Receiv	ved:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 D-1	997			An	alyst: KMT
Total Suspended Soli	ds								Prep Date/	Time:08/21/2019 10:35
Total Suspended Solid	ds	eij	Α	30	1.0	1.0		mg/L	1	08/21/2019 12:47

Analytical Results

Client: Client Project:	Arcelor Mittal USA Daily	, Inc.								
Client Sample ID:	WPL-Grab							Work	Order/ID:	19H1299-13
Sample Description:	WPL							Samp	led:	08/21/2019 7:15
Matrix:	Aqueous							Receiv	ved:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 4500 H+	B-2000			An	alyst: DAT
рН									Prep Date/	Time:08/22/2019 10:04
pН		eij	Α	< 2		2.00	Н	S.U.	1	08/22/2019 10:04
				Method:	SM 2710 F-2	004			An	alyst: DAT
Specific Gravity									Prep Date/	Time:08/21/2019 12:13
Specific Gravity			Α	1.31	0.0100	0.0100		T/4 C	1	08/21/2019 12:13

Analytical Results

Client: Client Project:	Arcelor Mittal US Daily	SA, Inc.								
Client Sample ID:	999-Grab							Work	Order/ID:	19H1299-14
Sample Description:	999							Samp	ed:	08/21/2019 7:20
Matrix:	Aqueous							Receiv	ved:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 D-1	997			An	alyst: KMT
Total Suspended Soli	ds								Prep Date/	Time:08/21/2019 10:35
Total Suspended Solid	ds	eij	Α	6.1	1.0	1.0	1	mg/L	1	08/21/2019 12:47

Analytical Results

Client: Client Project:	Arcelor Mittal US Daily	SA, Inc.								
Client Sample ID:	BFTC-Grab							Work	Order/ID:	19H1299-15
Sample Description:	BFTC							Samp	ed:	08/21/2019 7:39
Matrix:	Aqueous							Receiv	ved:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 D-19	997			An	alyst: KMT
Total Suspended Soli	ds								Prep Date/	Time:08/21/2019 10:35
Total Suspended Solid	ls	eij	Α	46	1.0	1.0		mg/L	1	08/21/2019 12:47

Analytical Results

Client: Client Project:	Arcelor Mittal US Daily	A, Inc.								
Client Sample ID:	002-Composite							Work	Order/ID:	19H1299-16
Sample Description:	002							Samp	ed:	08/20/2019 7:46
Matrix:	Aqueous							Receiv	/ed:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 D-19	997			An	alyst: KMT
Total Suspended Solid	ds								Prep Date/	Time:08/21/2019 10:35
Total Suspended Solid	ls	eij	Α	1.9	1.0	1.0	r	ng/L	1	08/21/2019 12:47

Analytical Results

Client: Client Project:	Arcelor Mittal US Daily	SA, Inc.								
Client Sample ID:	002-Grab							Work	Order/ID:	19H1299-17
Sample Description:	002							Sampl	ed:	08/20/2019 7:46
Matrix:	Aqueous							Receiv	/ed:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: E	PA 1664B				An	alyst: KMT
Oil & Grease (HEM) by	y SPE								Prep Date/	Time:08/21/2019 07:39
Oil & Grease (HEM)		eij	A	ND	1.4	5.0	U	mg/L	1	08/21/2019 14:40

Analytical Results

Client: Client Project:	Arcelor Mittal USA Daily	, Inc.								
Client Sample ID:	WAL-Grab							Work	Order/ID:	19H1299-18
Sample Description:	WAL							Sampl	ed:	08/20/2019 7:56
Matrix:	Aqueous							Receiv	ved:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: E	PA 1664B				Ana	alyst: KMT
Oil & Grease (HEM) by	SPE								Prep Date/1	Time:08/21/2019 07:39
Oil & Grease (HEM)		eij	A	8.2	1.4	5.0	r	ng/L	1	08/21/2019 14:40
				Method: S	SM 2710 F-20	04			Ana	alyst: DAT
Specific Gravity									Prep Date/1	Time:08/21/2019 12:13
Specific Gravity			Α	0.999	0.0100	0.0100	T	/4 C	1	08/21/2019 12:13
				Method: S	6M 2540 D-19	97			Ana	alyst: KMT
Total Suspended Solic	ls								Prep Date/1	Time:08/21/2019 10:35
Total Suspended Solid	S	eij	Α	5.2	1.0	1.0	m	ng/L	1	08/21/2019 12:47

Analytical Results

Client: Client Project:	Arcelor Mittal US Daily	A, Inc.								
Client Sample ID:	CM1-Grab							Work	Order/ID:	19H1299-20
Sample Description:	CM1							Samp	ed:	08/21/2019 0:00
Matrix:	Aqueous							Receiv	ved:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 D-1	997			An	alyst: KMT
Total Suspended Solid	ds								Prep Date/	Time:08/21/2019 10:35
Total Suspended Solid	ls	eij	Α	11	1.0	1.0		mg/L	1	08/21/2019 12:47

Analytical Results

Client: Client Project:	Arcelor Mittal US Daily	SA, Inc.								
Client Sample ID:	CM2-Grab							Work	Order/ID:	19H1299-21
Sample Description:	CM2							Samp	ed:	08/21/2019 0:00
Matrix:	Aqueous							Receiv	ved:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 D-1	997			An	alyst: KMT
Total Suspended Soli	ds								Prep Date/	Time:08/21/2019 10:35
Total Suspended Solid	ds	eij	Α	12	1.0	1.0		mg/L	1	08/21/2019 12:47

Analytical Results

Client: Client Project:	Arcelor Mittal US Daily	SA, Inc.								
Client Sample ID:	CM3-Grab							Work	Order/ID:	19H1299-22
Sample Description:	CM3							Samp	ed:	08/21/2019 0:00
Matrix:	Aqueous							Receiv	ved:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 D-1	997			An	alyst: KMT
Total Suspended Soli	ds								Prep Date/	Time:08/21/2019 10:35
Total Suspended Solid	ds	eij	A	14	1.0	1.0	1	mg/L	1	08/21/2019 12:47

Analytical Results

Client: Client Project:	Arcelor Mittal US Daily	SA, Inc.								
Client Sample ID:	CM6-Grab							Work	Order/ID:	19H1299-23
Sample Description:	CM6							Samp	led:	08/21/2019 0:00
Matrix:	Aqueous							Receiv	ved:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 D-1	997			An	alyst: KMT
Total Suspended Soli	ds								Prep Date/	Time:08/21/2019 10:35
Total Suspended Solid	ds	eij	Α	12	1.0	1.0	I	ng/L	1	08/21/2019 12:47

Analytical Results

Client: Client Project:	Arcelor Mittal US Daily	A, Inc.								
Client Sample ID:	HM1-Grab							Work	Order/ID:	19H1299-24
Sample Description:	HM1							Samp	led:	08/21/2019 0:00
Matrix:	Aqueous							Receiv	ved:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 D-1	997			An	alyst: KMT
Total Suspended Soli	ds								Prep Date/	Time:08/21/2019 10:35
Total Suspended Solid	ds	eij	Α	10	1.0	1.0		mg/L	1	08/21/2019 12:47

Analytical Results

Client: Client Project:	Arcelor Mittal US Daily	A, Inc.								
Client Sample ID:	HM2-Grab							Work	Order/ID:	19H1299-25
Sample Description:	HM2							Samp	ed:	08/21/2019 0:00
Matrix:	Aqueous							Receiv	ved:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 D-1	997			An	alyst: KMT
Total Suspended Solid	ds								Prep Date/	Time:08/21/2019 10:35
Total Suspended Solid	ls	eij	Α	25	1.0	1.0		mg/L	1	08/21/2019 12:47

Analytical Results

Client: Client Project:	Arcelor Mittal US Daily	SA, Inc.								
Client Sample ID:	HM3-Grab							Work	Order/ID:	19H1299-26
Sample Description:	HM3							Sampl	ed:	08/21/2019 0:00
Matrix:	Aqueous							Receiv	ved:	08/21/2019 10:00
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 D-1	997			An	alyst: KMT
Total Suspended Soli	ds								Prep Date/	Time:08/21/2019 10:35
Total Suspended Solid	ds	eij	Α	20	1.0	1.0		mg/L	1	08/21/2019 12:47

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

🔊 MICROBAC®

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)
- e Illinois DOPH Micro analysis of drinking water (#1755266)
- ⁱ Kansas Dept Health & Env. NELAP (#E-10397)
- ^j Kentucky Wastewater Laboratory Certification Program (#108202)

FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

H:	Sample was analyzed past holding time.
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.

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

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

Wed	need	211
vv eu	11690	ay

Wednesday		Lab	Work No:	19H	1299	1		e Obtained mple Date:	8-21-19 8-20-19	
Location	Time	Sampler	Туре	Preserved	Cooled	Containers Type	Qty	Vol. (ml)	Parameters	Comments
011 **	os.	R	Comp	No	Yes	Glass	1	4000	NH3, TSS, Phenol, Zn, Cn, Pb	01
	125	<u> </u>	Grab	No	No	Plastic	1	500	pH. Tot Res Cl	02
			Grab	Yes	No	Glass	1	1000	FOG (prepreserved)	X
004 ##	01		Comp	No	Yes	Glass	1	4000	NH3, Phenol, TSS	03
001 **	6.00		Grab	No	Yes	Plastic	1	500	pH, Tot Res Cl	04
	.00		Grab	Yes	No	Glass	1	1000	FOG (prepreserved)	V
004 +	Q1.		Grab	No	No	Plastic	1	1000	TSS	05
031 *	12		Grab	No	No	Plastic	1	1000	BOD	
			Grab	Yes	No	Plastic	1	125	Fecal (sterilized bottle)	J.
Mixed Liquor *	06:14		Grab	No	No	Plastic	1	2000	TSS, Settling	06
J-Box *	06:10		Grab	No	No	Glass	2	1000	NH3, Phenol, TSS, pH	07
DIW-131 *	it		Grab	No	No	Plastic	1	125	Hq	S
WWII *	06:51		Grab	No	No	Plastic	1	1000	Cn	08
Coldwell	07:03		Grab	No	No	Plastic	2	2000	NH3, CN, Pb, Zn, TSS	09
RSB FT Overflow *	07:08		Grab	No	No	Plastic	2	1000	NH3, pH, TSS, Pb, Zn	10
RSB FT Influent *	01:09		Grab	No	No	Plastic	1	500	TSS	/1
BFTD *	67:31		Grab	No	No	Plastic	1	500	TSS	12
WPL***	07.15		Grab	No	No	Glass	1	1000	SpG, pH	13
999 *	07:20		Grab	No	No	Plastic	1	500	TSS, pH	14
BFTC *	07:39	Í	Grab	No	No	Plastic	1	500	TSS	
	07	li	Comp	No	Yes	Plastic	1	500	TSS	15
002 **	1 N N N N N N N N N N N N N N N N N N N		Grab	No	No	Plastic	1	125	DH	16
	.46		Grab	Yes	No	Glass	1	1000	FOG (prepreserved)	
WAL 1**	mar		Grab	No	No	Glass	1	1000	TSS, SpG, pH	1×
VVAL I	07:56		Grab	Yes	No	Glass	2	1000	FOG (prepreserved)	18
WAL 2**	50		Grab	No	No	Glass	1	1000	TSS, SpG, pH	¥ 17
VVAL Z	00		Grab	Yes	No	Glass	2	1000	FOG (prepreserved)	\rightarrow
WAL 3**	0000		Grab	No	No	Glass	1	1000	TSS, SpG, pH	\leftarrow
VVAL 0	07:52		Grab	Yes	No	Glass	2	1000	FOG (prepreserved)	\rightarrow
SWTP *		****	Grab	No	No	Plastic	7	1000	TSS	20-26

*** WPL is for previous sample date

**** Sample collected by Water Process personnel

Relinquished by: Ca -Received by:

Date: B Z Date:

Time: 08 '00 Time: 0800

Env 3x Rev. 15 04/27/17 (TEK)

19H1299 Carey Gadzala ArcelorMittal - Burns Harbor, IN Daily 08/21/2019

00	Exp. Date 6/3 c// 9	7/25/20	Result	0,00		0.00	0.00	0.00	0000	00.0	0000		Exp. Date	6/30/19	7/25/20	5/31/20	Result (ma/l)	0000	20.0	00.0	0000	00.0	00.0	0.00	00.0	evision: a_01_2016	
4500-CI E - 20	STD ID / Lot # /4636 7	14 5348	Titrant Vol.	0.00	6.03	0.00	0.00	00.0	0,00	00.0	00.0		STD ID / Lot #	146367	146366	145348	Titrant Vol. (ml)	0.00	20.0	00-0	0,00	000	0000	00.0	00.0		,
- Amperometric Titration - SM Method 4500-CI E - 2000 for Arcelor Mittal - Burns Harbor	KI Solution:	Acetate buffer: PAO Titrant:	Titrant Stop	0.00	0.03.	0.00	000	00.0	0.00	00-00	00.00			KI Solution:	Acetate buffer:	PAO Titrant:	Titrant Stop (ml)	0.00	0.02	000	0.00	0.00	0,00	0.00	00.0		8
- Amperometric Titration - SM N for Arcelor Mittal - Burns Harbor			Titrant Start	0 , 0 0	_				* 1	-		-				÷	Titrant Start (ml)	0.00	/							mL)	
C-104-51		- Exp. Date ///~0	(atial Ha	4.0	4.0	4.0	4.0	4,0	4.0	4.0	4,0	<i>a</i>	20	2 1	Exp. Date	11/20	pH (pH Units)	4.0	4.0	4.0	4,0	4.0	4.0	40	4.0	Chlorine, mg/L =(Titrant Vol., mL) (200 mL) / (Sample Vol., mL)	
Total Residual Chlorine	8/20/17 0800 BAO	HJ626 A9074	Sample Vol.	200							Ž		8/21/14 0800	BA0	H7626	A 9074	Sample Vol. (ml)	200			2			2 2	7	(Titrant Vol., mL) (20	
F - 	Date/Time: <u>8</u> Analyst:	pH Paper Lot #: LCS ID:	Sample	Blank	LCS	Outfall 001	Outfall 002	Outfall 003	Outfall 011	Outfall 011 Dup	n		Date/Time:	Analyst	pH Paper Lot #:	LCS ID:	Sample ID	Blank	LCS	Outfall 001	Outfall 002	Outfall 003	Outfall 011	011	_	Chlorine, mg/L =	

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pH - METHOD 9045D Arcelor Mittal /Burns Harbor NPDES

4	pН	Analyst	Date/Time of Analysis
4: 185909	7: 188312	10: 187680	
		BAO	8/21/19 0800
4 102/ 10	6.99		
	99.1		
	8,62		
	8.73		
	7.80		Y
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	4: 195909 (4) (7) (10) 4 (2) 10	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

Sample ID	T	pН	Analyst	Date/Time of Analysis
	4:	7:	10:	2
Buffer ID:	4.	6.5		
Meter ID:				•
Calibration	4 / 7 / 10			
ICV	4 / 7 / 10			
Slope			5(²²⁾	
Lake 999				
Location 001	÷			
Location 002				•
Location 011	1	····		
WAL 1	<i>x</i>		*	
WAL 2				
SWTP J-Box	-			1
DIW 131				
RSB				
Dup-				
CCV				·
			*	
			2	
÷		3		

revision: _d_10-15

ME-3415

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e.65 Contractor ref */job * 2966 Number Requisition number Ø 2 7 9 8 7 Percent job com ST Pit Pit Percent job com Percent job com Percent job com ST Pit Pit Pit Pit Percent job com ST Pit Pit Pit Pit Pit ST Pit Pit Pit Pit Pit Pit </th <th>Tontractor r Tontractor r Samples Tontactor DT Tontactor DT Tontact</th> <th>Lumber T OIT DT T OIT DT</th> <th>Samples Tontractor T Torractor Torra</th> <th>Contractor company name Lué 6 Ponumber Ponumber Description of work Samples Erst name Caft Si Prist name Si Si</th>	Tontractor r Tontractor r Samples Tontactor DT Tontactor DT Tontact	Lumber T OIT DT T OIT DT	Samples Tontractor T Torractor Torra	Contractor company name Lué 6 Ponumber Ponumber Description of work Samples Erst name Caft Si Prist name Si Si
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307243 Dailv work authorization form for all visitin	ng workers	S			- 7		(
For each job, and before starting work at the job site, a contractor representative must meet face to face with the ArcelorMittal representative responsible for the work and discuss the work to be performed and any specific safety requirements.	tative must meet ed and any speci	face to face wit fic safety require	h the ArcelorMitt ements.	al	<	ArcelorMitta	Nittal
Section 1 Company name Microbac Labs	The named ArcelorMit	The named contractor or wor ArcelorMittal representative	The named contractor or work crew is cleared to perform the job described herein: ArcelorMittal representative	o perform the jok			
phone no Carey Gal rala 768-837 ect/job description Env. ro Bldg/ water Sacul	L	ArcelorMittal representative department	e department	E-20 -	Date 8	121 119	
	144 - L			Clinic p	Clinic pickup point 20	10	
HIRAC-Lite	Yes N/A No	0		A performance of		Yes N	N/A No
1) Are emergency evacuation areas identified and known?		10) Could sor	10) Could someone be caught in or between anything?	or between anyt	hing?		
2) Is there a current and valid isolation (LOTO) procedure?		11) Could sor	11) Could someone get hurt as a result of a fall from height?	result of a fall fro	om height?		
3) Will everyone apply a personal safety lock?		12) Can some	12) Can something fall and/or strike me or someone else?	rike me or somec	ne else?		ф
4) Are there adjacent work crews exposed (including ArcelorMittal employees)?		13) Is everyor	13) Is everyone properly trained for this job?	for this job?		4	•
5) Are there potential hazards or high risk job steps?		14) Are flags	14) Are flags and derails in place if needed?	if needed?	er (mot milita)	þ	
6) Do we have the correct tools for the job?		15) Can we sl	ip or trip on anythir	ng (including trav	15) Can we slip or trip on anything (including travel to and from the job)?		•
7) Is additional PPE required?		16) Have all a	16) Have all affected people been notified?	n notified?	AIND HILL STU-		•
8) Is there a potential for exposure (chemical, radiation, laser, temperature)?		17) Can we st	17) Can we strain or overexert ourselves?	urselves?	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	6	
 Is someone working on or near energized electrical equipment (motor control rooms, overhead power lines, etc.)? 		ALC: CONT	18) Has equipment been inspected prior to use? (tools, PPE, mobile equipment, etc.)	ed prior to use? (tools, PPE, mobile	<u></u>	
Other Hazards and Considerations for Discussion					Permits		
Yes N/A No Yes N/A No	No	Yes N/A N	No Y	Yes N/A No		Yes	Yes N/A No
	29) Scaffold work	ork 🛑 📑	🛃 33) Asbestos (37) Confined space		-
	🛃 30) Explosives) [] ()	🔰 34) Noise (38) Energized electrical work	cal work 🔵	
	🛃 31) Barricades		📕 35) Lasers (39) Excavation / drilling	ug 🔵	
	32) Radiation		🚺 36) Sewers (40) Hot work		
23) Pressurized / steam pipe 🛛 🌑 🖂 🖆 28) Overhead work 🛛 🚭 🚾 🕌					41) Other		
Section 3 Visiting worker name (print) Badge # Hazard # Co	Hierarchy of Controls Controls	ls 1. Elimination 2. Substitution Responsible Person	ubstitution 3. Engineering Person Hazard #	ng 4. Administrative	5. PPE Controls	Respons	Responsible Person
		2110 71				als vertine	2
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15 Beware of	f uncour	Surfac	E				
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20 Uchicle v	mouche						
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		101128		1	·	8	
ArcelorMittal representative named below. ArcelorMittal representative To ArcelorMittal repres	re prepared to perform representative	orm the work in a	sate "workmanship	o" like manner. I have reviewec Replacement rep/phone	ave reviewed these co ep/phone	onsiderations	with the
prior to signing) Original to contractor, (1) copy to A	eclorMittal represe	ntative	Controlled b	y Maintenance A	Controlled by Maintenance Administration Dept. Arcelor@@aladrn8fH37bor	rceloPAGE13	ZrRfH37bor
	22.				2016-04-BI	2016-04-BH-DailyWorkAuthorization	uthorizatior