August 25, 2019

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

Work Order No.: 19H1551

Re: NPDES Excursion

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 24 sample(s) on 8/25/2019 10:00:00AM for the analyses presented in the following report as Work Order 19H1551.

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: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Project: NPDES Excursion
Lab Order: 19H1551

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
19H1551-01	#9		08/24/2019 09:41	8/25/2019 10:00:00AM
19H1551-02	#10		08/24/2019 09:50	8/25/2019 10:00:00AM
19H1551-03	#11		08/24/2019 09:58	8/25/2019 10:00:00AM
19H1551-04	#12		08/24/2019 10:05	8/25/2019 10:00:00AM
19H1551-05	#8		08/24/2019 10:20	8/25/2019 10:00:00AM
19H1551-06	Marina Shores West Basin		08/24/2019 10:33	8/25/2019 10:00:00AM
19H1551-07	#7		08/24/2019 10:42	8/25/2019 10:00:00AM
19H1551-08	#6		08/24/2019 10:49	8/25/2019 10:00:00AM
19H1551-09	#5		08/24/2019 10:55	8/25/2019 10:00:00AM
19H1551-10	#4		08/24/2019 11:02	8/25/2019 10:00:00AM
19H1551-11	#3		08/24/2019 11:10	8/25/2019 10:00:00AM
19H1551-12	#2		08/24/2019 11:15	8/25/2019 10:00:00AM
19H1551-13	#1		08/24/2019 11:25	8/25/2019 10:00:00AM
19H1551-14	OF001		08/24/2019 11:36	8/25/2019 10:00:00AM
19H1551-15	Portage Marina East		08/24/2019 12:29	8/25/2019 10:00:00AM
19H1551-16	000		08/24/2019 14:28	8/25/2019 10:00:00AM
19H1551-17	SL-1		08/24/2019 15:10	8/25/2019 10:00:00AM
19H1551-18	SL-2		08/24/2019 15:30	8/25/2019 10:00:00AM
19H1551-19	SL-3		08/24/2019 15:43	8/25/2019 10:00:00AM
19H1551-20	SL-4		08/24/2019 15:54	8/25/2019 10:00:00AM
19H1551-21	SL-5		08/24/2019 16:06	8/25/2019 10:00:00AM
19H1551-22	SL-6		08/24/2019 16:43	8/25/2019 10:00:00AM
19H1551-23	SL-7		08/24/2019 16:52	8/25/2019 10:00:00AM
19H1551-24	SL-8		08/24/2019 17:39	8/25/2019 10:00:00AM

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Field Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Work Order: 19H1551

Client Sample ID: #9
Sample Description:
Matrix: Aqueous
Work Order/ID: 19H1551-01
Sampled: 08/24/2019 09:41
Received: 08/25/2019 10:00

Analyses	Result	Units
Dissolved Oxygen	5.2	mg/L
pH	7.52	pH Units
Temperature	23.7	Deg C

Client Sample ID: #10
Sample Description:
Matrix: Aqueous
Work Order/ID: 19H1551-02
Sampled: 08/24/2019 09:50
Received: 08/25/2019 10:00

Analyses	Result	Units
Dissolved Oxygen	5.4	mg/L
pH	7.70	pH Units
Temperature	23.3	Deg C

Client Sample ID: #11
Sample Description:
Matrix: Aqueous
Work Order/ID: 19H1551-03
Sampled: 08/24/2019 09:58
Received: 08/25/2019 10:00

Analyses	Result	Units
Dissolved Oxygen	5.8	mg/L
pH	7.66	pH Units
Temperature	23.4	Deg C

Client Sample ID: #12
Sample Description:
Matrix: Aqueous
Work Order/ID: 19H1551-04
Sampled: 08/24/2019 10:05
Received: 08/25/2019 10:00

Analyses	Result	Units
Dissolved Oxygen	5.5	mg/L
pH	7.71	pH Units
Temperature	24	Deg C

Client Sample ID: #8
Sample Description:
Matrix: Aqueous
Work Order/ID: 19H1551-05
Sampled: 08/24/2019 10:20
Received: 08/25/2019 10:00

Analyses	Result	Units
Dissolved Oxygen	6.1	mg/L
pH	7.80	pH Units
Temperature	22.2	Deg C

Client Sample ID: Marina Shores West Basin
Sample Description:
Matrix: Aqueous
Work Order/ID: 19H1551-06
Sampled: 08/24/2019 10:33
Received: 08/25/2019 10:00

Analyses	Result	Units
Dissolved Oxygen	7.9	mg/L

Field Results

Date: *Sunday, August 25, 2019*

pH	7.99	pH Units
Temperature	24.1	Deg C

Client Sample ID: #7
Sample Description:
Matrix: Aqueous
Work Order/ID: 19H1551-07
Sampled: 08/24/2019 10:42
Received: 08/25/2019 10:00

Analyses	Result	Units
Dissolved Oxygen	5.4	mg/L
pH	7.56	pH Units
Temperature	23.3	Deg C

Client Sample ID: #6
Sample Description:
Matrix: Aqueous
Work Order/ID: 19H1551-08
Sampled: 08/24/2019 10:49
Received: 08/25/2019 10:00

Analyses	Result	Units
Dissolved Oxygen	5.6	mg/L
pH	7.64	pH Units
Temperature	23.1	Deg C

Client Sample ID: #5
Sample Description:
Matrix: Aqueous
Work Order/ID: 19H1551-09
Sampled: 08/24/2019 10:55
Received: 08/25/2019 10:00

Analyses	Result	Units
Dissolved Oxygen	5.4	mg/L
pH	7.77	pH Units
Temperature	22.4	Deg C

Client Sample ID: #4
Sample Description:
Matrix: Aqueous
Work Order/ID: 19H1551-10
Sampled: 08/24/2019 11:02
Received: 08/25/2019 10:00

Analyses	Result	Units
Dissolved Oxygen	6.0	mg/L
pH	7.78	pH Units
Temperature	22.7	Deg C

Client Sample ID: #3
Sample Description:
Matrix: Aqueous
Work Order/ID: 19H1551-11
Sampled: 08/24/2019 11:10
Received: 08/25/2019 10:00

Analyses	Result	Units
Dissolved Oxygen	6.9	mg/L
pH	7.85	pH Units
Temperature	22.8	Deg C

Client Sample ID: #2
Sample Description:
Matrix: Aqueous
Work Order/ID: 19H1551-12
Sampled: 08/24/2019 11:15
Received: 08/25/2019 10:00

Analyses	Result	Units

Field Results

Date: *Sunday, August 25, 2019*

Dissolved Oxygen	6.5	mg/L
pH	7.75	pH Units
Temperature	22.9	Deg C

Client Sample ID: #1
Sample Description:
Matrix: Aqueous
Work Order/ID: 19H1551-13
Sampled: 08/24/2019 11:25
Received: 08/25/2019 10:00

Analyses	Result	Units
Dissolved Oxygen	6.5	mg/L
pH	7.81	pH Units
Temperature	23.8	Deg C

Client Sample ID: OF001
Sample Description:
Matrix: Aqueous
Work Order/ID: 19H1551-14
Sampled: 08/24/2019 11:36
Received: 08/25/2019 10:00

Analyses	Result	Units
Dissolved Oxygen	6.7	mg/L
pH	7.81	pH Units
Temperature	24.8	Deg C

Client Sample ID: Portage Marina East
Sample Description:
Matrix: Aqueous
Work Order/ID: 19H1551-15
Sampled: 08/24/2019 12:29
Received: 08/25/2019 10:00

Analyses	Result	Units
Dissolved Oxygen	7.7	mg/L
pH	7.67	pH Units
Temperature	25.1	Deg C

Client Sample ID: 000
Sample Description:
Matrix: Aqueous
Work Order/ID: 19H1551-16
Sampled: 08/24/2019 14:28
Received: 08/25/2019 10:00

Analyses	Result	Units
Dissolved Oxygen	6.6	mg/L
pH	7.60	pH Units
Temperature	25	Deg C

Client Sample ID: SL-1
Sample Description:
Matrix: Aqueous
Work Order/ID: 19H1551-17
Sampled: 08/24/2019 15:10
Received: 08/25/2019 10:00

Analyses	Result	Units
Dissolved Oxygen	7.0	mg/L
pH	7.83	pH Units
Temperature	25	Deg C

Field Results

Date: *Sunday, August 25, 2019*

Client Sample ID: SL-2
Sample Description:
Matrix: Aqueous
Work Order/ID: 19H1551-18
Sampled: 08/24/2019 15:30
Received: 08/25/2019 10:00

Analyses	Result	Units
Dissolved Oxygen	7.8	mg/L
pH	7.91	pH Units
Temperature	25	Deg C

Client Sample ID: SL-3
Sample Description:
Matrix: Aqueous
Work Order/ID: 19H1551-19
Sampled: 08/24/2019 15:43
Received: 08/25/2019 10:00

Analyses	Result	Units
Dissolved Oxygen	7.2	mg/L
pH	8.0	pH Units
Temperature	25	Deg C

Client Sample ID: SL-4
Sample Description:
Matrix: Aqueous
Work Order/ID: 19H1551-20
Sampled: 08/24/2019 15:54
Received: 08/25/2019 10:00

Analyses	Result	Units
Dissolved Oxygen	7.0	mg/L
pH	8.02	pH Units
Temperature	23.4	Deg C

Client Sample ID: SL-5
Sample Description:
Matrix: Aqueous
Work Order/ID: 19H1551-21
Sampled: 08/24/2019 16:06
Received: 08/25/2019 10:00

Analyses	Result	Units
Dissolved Oxygen	6.9	mg/L
pH	7.92	pH Units
Temperature	23.2	Deg C

Client Sample ID: SL-6
Sample Description:
Matrix: Aqueous
Work Order/ID: 19H1551-22
Sampled: 08/24/2019 16:43
Received: 08/25/2019 10:00

Analyses	Result	Units
Dissolved Oxygen	7.0	mg/L
pH	8.09	pH Units
Temperature	23.3	Deg C

Client Sample ID: SL-7
Sample Description:
Matrix: Aqueous
Work Order/ID: 19H1551-23
Sampled: 08/24/2019 16:52
Received: 08/25/2019 10:00

Analyses	Result	Units
Dissolved Oxygen	7.6	mg/L
pH	8.08	pH Units
Temperature	23.1	Deg C

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Field Results

Date: *Sunday, August 25, 2019*

Client Sample ID: SL-8
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-24
Sampled: 08/24/2019 17:39
Received: 08/25/2019 10:00

Analyses	Result	Units
Dissolved Oxygen	7.3	mg/L
pH	8.03	pH Units
Temperature	22.9	Deg C

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Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: #9
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-01
Sampled: 08/24/2019 9:41
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 11:15**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 14:30
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:06**
Free Cyanide		A	***ND***	0.0062		mg/L	1	08/25/2019 11:41
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 12:49**
Nitrogen, Ammonia (As N)	**di**	A	***0.26***	0.10		mg/L	1	08/25/2019 14:44

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Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: #10
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-02
Sampled: 08/24/2019 9:50
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 11:15**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 14:32
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:06**
Free Cyanide		A	***ND***	0.0062		mg/L	1	08/25/2019 11:46
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 12:49**
Nitrogen, Ammonia (As N)	**di**	A	***0.27***	0.10		mg/L	1	08/25/2019 14:51

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Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: #11
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-03
Sampled: 08/24/2019 9:58
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 11:15**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 14:37
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:06**
Free Cyanide		A	***ND***	0.0062		mg/L	1	08/25/2019 11:48
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 12:49**
Nitrogen, Ammonia (As N)	**di**	A	***0.16***	0.10		mg/L	1	08/25/2019 14:54

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Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: #12
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-04
Sampled: 08/24/2019 10:05
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 11:15**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 14:38
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:06**
Free Cyanide		A	***ND***	0.0062		mg/L	1	08/25/2019 11:49
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 12:49**
Nitrogen, Ammonia (As N)	**di**	A	***0.17***	0.10		mg/L	1	08/25/2019 14:56

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Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: #8
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-05
Sampled: 08/24/2019 10:20
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 11:15**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 14:40
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:06**
Free Cyanide		A	***ND***	0.0062		mg/L	1	08/25/2019 11:51
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 12:49**
Nitrogen, Ammonia (As N)	**di**	A	***0.39***	0.10		mg/L	1	08/25/2019 14:58

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Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: Marina Shores West Basin
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-06
Sampled: 08/24/2019 10:33
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 11:15**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 14:42
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:06**
Free Cyanide		A	***ND***	0.0062		mg/L	1	08/25/2019 11:53
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 12:49**
Nitrogen, Ammonia (As N)	**di**	A	***ND***	0.10		mg/L	1	08/25/2019 15:01

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Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: #7
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-07
Sampled: 08/24/2019 10:42
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 11:15**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 16:30
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:06**
Free Cyanide		A	***ND***	0.0062		mg/L	1	08/25/2019 11:54
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 12:49**
Nitrogen, Ammonia (As N)	**di**	A	***0.28***	0.10		mg/L	1	08/25/2019 15:03

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Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: #6
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-08
Sampled: 08/24/2019 10:49
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 11:15**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 14:47
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:06**
Free Cyanide		A	***ND***	0.0062		mg/L	1	08/25/2019 11:56
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 12:49**
Nitrogen, Ammonia (As N)	**di**	A	***0.23***	0.10		mg/L	1	08/25/2019 15:06

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Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: #5
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-09
Sampled: 08/24/2019 10:55
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 11:15**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 14:48
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:06**
Free Cyanide		A	***ND***	0.0062		mg/L	1	08/25/2019 12:01
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 12:49**
Nitrogen, Ammonia (As N)	**di**	A	***0.24***	0.10		mg/L	1	08/25/2019 15:08

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Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: #4
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-10
Sampled: 08/24/2019 11:02
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 11:15**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 14:50
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:06**
Free Cyanide		A	***ND***	0.0062		mg/L	1	08/25/2019 12:03
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 12:49**
Nitrogen, Ammonia (As N)	**di**	A	***0.20***	0.10		mg/L	1	08/25/2019 15:48

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Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: #3
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-11
Sampled: 08/24/2019 11:10
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 11:15**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 14:55
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:06**
Free Cyanide		A	***ND***	0.0062		mg/L	1	08/25/2019 12:04
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 12:49**
Nitrogen, Ammonia (As N)	**di**	A	***0.20***	0.10		mg/L	1	08/25/2019 15:51

MICROBAC®

Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: #2
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-12
Sampled: 08/24/2019 11:15
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 11:15**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 14:57
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:06**
Free Cyanide		A	***ND***	0.0062		mg/L	1	08/25/2019 12:09
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 12:49**
Nitrogen, Ammonia (As N)	**di**	A	***0.17***	0.10		mg/L	1	08/25/2019 15:53

MICROBAC®

Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: #1
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-13
Sampled: 08/24/2019 11:25
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 11:15**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 14:59
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:06**
Free Cyanide		A	***ND***	0.0062		mg/L	1	08/25/2019 12:11
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 12:49**
Nitrogen, Ammonia (As N)	**di**	A	***0.18***	0.10		mg/L	1	08/25/2019 15:56

MICROBAC®

Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: OF001
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-14
Sampled: 08/24/2019 11:36
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 11:15**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 15:00
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:06**
Free Cyanide		A	***ND***	0.0062		mg/L	1	08/25/2019 12:13
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 15:00**
Nitrogen, Ammonia (As N)	**di**	A	***0.30***	0.10		mg/L	1	08/25/2019 15:58

MICROBAC®

Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: Portage Marina East
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-15
Sampled: 08/24/2019 12:29
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 11:15**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 15:02
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:06**
Free Cyanide		A	***ND***	0.0062		mg/L	1	08/25/2019 12:15
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 15:00**
Nitrogen, Ammonia (As N)	**di**	A	***0.16***	0.10		mg/L	1	08/25/2019 16:00

MICROBAC®

Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: 000
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-16
Sampled: 08/24/2019 14:28
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 14:00**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 16:32
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:06**
Free Cyanide		A	***ND***	0.0062		mg/L	1	08/25/2019 12:16
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 15:00**
Nitrogen, Ammonia (As N)	**di**	A	***ND***	0.10		mg/L	1	08/25/2019 16:03

MICROBAC®

Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: SL-1
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-17
Sampled: 08/24/2019 15:10
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 14:00**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 16:33
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:06**
Free Cyanide		A	***ND***	0.0062		mg/L	1	08/25/2019 12:21
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 15:00**
Nitrogen, Ammonia (As N)	**di**	A	***ND***	0.10		mg/L	1	08/25/2019 16:05

MICROBAC®

Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: SL-2
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-18
Sampled: 08/24/2019 15:30
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 14:00**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 16:35
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:06**
Free Cyanide		A	***ND***	0.0062		mg/L	1	08/25/2019 12:23
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 15:00**
Nitrogen, Ammonia (As N)	**di**	A	***ND***	0.10		mg/L	1	08/25/2019 16:17

MICROBAC®

Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: SL-3
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-19
Sampled: 08/24/2019 15:43
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 14:00**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 16:37
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:06**
Free Cyanide		A	***ND***	0.0062		mg/L	1	08/25/2019 12:25
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 15:00**
Nitrogen, Ammonia (As N)	**di**	A	***ND***	0.10		mg/L	1	08/25/2019 16:24

MICROBAC®

Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: SL-4
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-20
Sampled: 08/24/2019 15:54
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 14:00**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 16:38
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:06**
Free Cyanide		A	***ND***	0.0062		mg/L	1	08/25/2019 12:26
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 15:00**
Nitrogen, Ammonia (As N)	**di**	A	***ND***	0.10		mg/L	1	08/25/2019 16:27

MICROBAC®

Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: SL-5
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-21
Sampled: 08/24/2019 16:06
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 14:35**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 16:40
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:07**
Free Cyanide		A	***ND***	0.0062		mg/L	1	08/25/2019 12:28
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 15:00**
Nitrogen, Ammonia (As N)	**di**	A	***ND***	0.10		mg/L	1	08/25/2019 16:29

MICROBAC®

Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: SL-6
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-22
Sampled: 08/24/2019 16:43
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 14:35**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 16:42
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:07**
Free Cyanide		A	***ND***	0.0062		mg/L	1	08/25/2019 12:30
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 15:00**
Nitrogen, Ammonia (As N)	**di**	A	***ND***	0.10		mg/L	1	08/25/2019 16:31

MICROBAC®

Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: SL-7
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-23
Sampled: 08/24/2019 16:52
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 14:35**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 16:47
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:07**
Free Cyanide		A	***ND***	0.0062		mg/L	1	08/25/2019 12:31
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 15:00**
Nitrogen, Ammonia (As N)	**di**	A	***ND***	0.10		mg/L	1	08/25/2019 16:34

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Analytical Results

Date: *Sunday, August 25, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion
Client Sample ID: SL-8
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1551-24
Sampled: 08/24/2019 17:39
Received: 08/25/2019 10:00

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**					Analyst: **EF**
Total Cyanide			Prep Method: **NA**					Prep Date/Time: **08/25/2019 14:35**
Cyanide, Total	**dij**	A	***ND***	0.0050		mg/L	1	08/25/2019 16:49
			Method: **SW-846 9014**					Analyst: **lachat4**
Free Cyanide			Prep Method: **SW-846 9014**					Prep Date/Time: **08/25/2019 10:07**
Free Cyanide		A	***ND***	0.0050		mg/L	1	08/25/2019 12:43
			Method: **EPA 350.1 Rev 2.0**					Analyst: **EF**
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**					Prep Date/Time: **08/25/2019 15:00**
Nitrogen, Ammonia (As N)	**di**	A	***0.10***	0.10		mg/L	1	08/25/2019 16:36

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)

RL: Reporting Limit
RPD: Relative Percent Difference

Cooler Receipt Log

Cooler ID: Default Cooler Temp: °C

Comments

No dates or times on sample containers

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?	No
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?)	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

MICROBAC

CHAIN OF CUSTODY RECORD

Number 152303

Instructions on back

RUSH!

Lab Report Address
Client Name: AMBH
Address:
City, State, Zip:
Contact:
Telephone No.:

Invoice Address
Client Name:
Address:
City, State, Zip:
Contact:
Telephone No.:

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

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

TO BE COMPLETED BY MICROBAC
Temperature Upon Receipt (°C) 6.1
Therm ID -0.3
Holding Time 5.8
Samples Received on Ice? ☒ Yes ☐ No ☐ N/A
Custody Seals Intact? ☐ Yes ☐ No ☒ N/A

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

Project: Receiving Water Monitoring
Location:
PO No.:
Compliance Monitoring? ☐ Yes ☐ No
☐ Agency/Program

Sampled by (PRINT): Patrick Gorman
Sampler Signature:
Sampler Phone No.: 219-644-7585

* 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

19H1551
Carey Gadzala
ArcelorMittal - Burns Harbor, IN
NPDES Excursion
08/25/2019

REQUESTED ANALYSIS

Client Sample ID	Date Collected	Time Collected	No. of Containers	Matrix	Grab / Comp	Preservative Types **	NH4	Cl (Total)	Cl (Free)	Temp (Field)	pH (Field)	DO (Field)	19H1557 Additional Notes
9	8/24/19	9:41	3	AQ	G	U,2,4	X	X	X	23.7	7.52	5.2	01
10		9:50								23.3	7.70	5.4	02
11		9:58								23.4	7.66	5.2	03
12		10:06								24.0	7.71	5.5	04
8		10:20								22.2	7.80	6.1	05
~~13~~ MARINA SLIPS WEST BASIN		10:33								24.1	7.99	7.9	~~06~~ -06
7		10:42								23.3	7.56	5.4	~~07~~ ~~06~~ -07
6		10:49								23.1	7.64	5.6	~~08~~ ~~07~~ -08
5		10:55								22.4	7.77	5.4	~~09~~ ~~08~~ -09
4		11:02								22.7	7.78	6.0	~~10~~ ~~09~~ -10

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

Comments
When Collected
TIME
PH
Temp
D.O.
OUTER HARBOR SAMPLE 13 NOT TAKEN DUE TO HIGH WAVES DANGEROUS CONDITIONS

Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
	8/24/19 13:55		8/25/19 0815
	8/25/19 0900		
			8/25/19 0900

rev.12/26/2017

MICROBAC®

CHAIN OF CUSTODY RECORD

Number 152299

Instructions on back

Lab Report Address	Invoice Address	Turnaround Time	*TO BE COMPLETED BY MICROBAC*
Client Name:	Client Name:	☐ Routine (5 to 7 business days) ☐ RUSH* (notify lab)	Temperature Upon Receipt (°C) Therm ID
Address:	Address:		Holding Time
City, State, Zip:	City, State, Zip:	(needed by)	Samples Received on Ice? ☐ Yes ☐ No ☐ N/A
Contact:	Contact:	Report Type	Custody Seals Intact? ☐ Yes ☐ No ☐ N/A
Telephone No.:	Telephone No.:	☐ Results Only ☐ Level 1 ☐ Level 2 ☐ Level 3 ☐ Level 4 ☐ EDD	

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

Project: Recreational Water Monitoring Location: PO No.: Compliance Monitoring? ☐ Yes ☐ No ☐ Agency/Program

Sampled by (PRINT): Patrick Eastman Sampler Signature: Sampler Phone No.: 214-644-7585

* 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 **	NH4	Cl (total)	Cl (FREE)	Temp (Field)	pH (Field)	D.O. (Field)	1941551 Additional Notes	
	3	8/24/19	11:10	3	AQ	G	U, 2, 4	X	X	X	22.8	7.85	6.9	~~10~~	11
	2	↓	11:15	↓	↓	↓	↓	↓	↓	↓	22.9	7.75	6.5	~~11~~ 8/25/19	12
	1		11:25								23.8	7.81	6.5	~~13~~	13
	OE001		11:36								24.8	7.81	6.7	~~13~~	14
	Portage Marina East	↓	12:29	↓	↓	↓	↓	↓	↓	↓	25.1	7.67	7.7	~~14~~	15

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

Comments

When Collected
TIME
PH
Temp
D.O.

Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
	8/24/19 13:55		
	8/25/19 0900		
			8/25/19 0900

rev.12/26/2017

MICROBAC

CHAIN OF CUSTODY RECORD

Number 152298

Instructions on back

Lab Report Address
Client Name: AMBH
Address:
City, State, Zip:
Contact:
Telephone No.:

Invoice Address
Client Name:
Address:
City, State, Zip:
Contact:
Telephone No.:

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

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

TO BE COMPLETED BY MICROBAC
Temperature Upon Receipt (°C)
Therm ID
Holding Time
Samples Received on Ice? ☐ Yes ☐ No ☐ N/A
Custody Seals Intact? ☐ Yes ☐ No ☐ N/A

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

Project: Recreation Water Monitoring
Location:
PO No.:
Compliance Monitoring? ☐ Yes ☐ No
☐ Agency/Program

Sampled by (PRINT): Patrick Gorman
Sampler Signature:
Sampler Phone No.: 219-644-7585

* 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 **	NH4	Cl (total)	Cl (Free)	Temp (Field)	pH (Field)	DO (Field)	1941551 Additional Notes	
	000	8/24/19	14:28	3	AQ	G	U,2,4	X	X	X	25.0	7.60	6.6	~~15~~	16
	SL-1	↓	15:10	↓	↓	↓	↓	↓	↓	↓	25.0	7.83	7.0	~~16~~	17
	SL-2		15:30								25.0	7.91	7.8	~~17~~	18
	SL-3		15:43								25.0	8.00	7.2	~~18~~	19
	SL-4		15:54								23.4	8.02	7.0	~~19~~	20
	SL-5		16:06								23.2	7.92	6.9	~~20~~	21
	SL-6		16:43								23.3	8.09	7.6	~~21~~	22
	SL-7		16:52								23.1	8.08	7.6	~~22~~	23
	SL-8	↓	17:39	↓	↓	↓	↓	↓	↓	↓	22.9	8.03	7.3	~~23~~	24

DEL 8/20/19

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

Comments
When Collected
Time
pH
Temp
D.O.

Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
	8/24/19 18:21		8/25/19 0815
	8/25/19 0900		
			8/25/19 0905

rev.12/26/2017