

September 6, 2019

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

Work Order No.: 19I0304

Re: Ammonia-Storm Ditch

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 8 sample(s) on 9/6/2019 9:55:00AM for the analyses presented in the following report as Work Order 1910304.

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 Macizala

Carey Gadzala Project Manager

Microbac Laboratories, Inc.



| WORK OR    | DER SAMPLE SUMMARY   |            | Date:            | Friday, September 6, 2019 |
|------------|--|------------|------------------|---------------------------|
| Project:   | Arcelor Mittal USA, Inc.<br>Ammonia-Storm Ditch<br>19I0304 |            |                  |                           |
| Lab Sample | ID Client Sample ID  | Tag Number | Collection Date  | Date Received             |
| 1910304-01 | Plate Mill Storm Ditch                                     | -          | 09/06/2019 00:00 | 9/6/2019 9:55:00AM        |
| 1910304-02 | Main Storm Ditch   |            | 09/06/2019 00:00 | 9/6/2019 9:55:00AM        |
| 1910304-03 | Cannon Storm Ditch   |            | 09/06/2019 00:00 | 9/6/2019 9:55:00AM        |
| 1910304-04 | NW Storm Ditch   |            | 09/06/2019 00:00 | 9/6/2019 9:55:00AM        |
| 1910304-05 | SWTP Effluent/Clarifiers                                   |            | 09/06/2019 00:00 | 9/6/2019 9:55:00AM        |
| 1910304-06 | 031  |            | 09/06/2019 00:00 | 9/6/2019 9:55:00AM        |
| 1910304-07 | 999  |            | 09/06/2019 00:00 | 9/6/2019 9:55:00AM        |
| 1910304-08 | 001  |            | 09/06/2019 00:00 | 9/6/2019 9:55:00AM        |

| Analytical Re              | esults  |       |    |            |                   | Date: | Fi         | riday, S | September 6, 2    | 2019 |
|----------------------------|---|-------|----|------------|-------------------|-------|------------|----------|-------------------|------|
| Client:<br>Client Project: | Arcelor Mittal USA, Inc.<br>Ammonia-Storm Ditch |       |    |            |                   | 14/   | ork Order/ | ID.      | 191030            | 4 01 |
| Client Sample ID:          | Plate Mill Storm Ditch                          |       |    |            |                   |       | mpled:     | ID.      | 09/06/2019        |      |
| Sample Description:        |   |       |    |            |                   | Re    | ceived:    |          | 09/06/2019        | 9:55 |
| Matrix:                    | Aqueous   |       |    |            |                   |       |            |          |                   |      |
| Analyses                   |   | Certs | AT | Result     | RL                | Qual  | Units      | DF       | Analyzed          | ł    |
|                            |   |       |    | Metho      | od: EPA 350.1 Rev | 2.0   |            | Analy    | st: ABG           |      |
| Nitrogen, Ammonia          | as N  | -     |    | Prep Metho | od: EPA 350.1 Rev | 2.0   | Prep [     | Date/Tim | e:09/06/2019 11:3 | 32   |

ND

0.10

А

di

Nitrogen, Ammonia (As N)

mg/L

1

| Analytical Re                            | esults  |       |    |          |                |     | Date: | F                 | Friday, S | September 6              | 2019   |
|--|---|-------|----|----------|----------------|-----|-------|-------------------|-----------|--------------------------|--------|
| Client:<br>Client Project:               | Arcelor Mittal USA, Inc.<br>Ammonia-Storm Ditch |       |    |          |                |     | Wa    | ork Ordei         | /ID:      | 19103                    | 304-02 |
| Client Sample ID:<br>Sample Description: | Main Storm Ditch                                |       |    |          |                |     |       | mpled:<br>ceived: |           | 09/06/2019<br>09/06/2019 |        |
| Matrix:                                  | Aqueous   |       |    |          |                |     |       |                   |           |                          |        |
| Analyses                                 |   | Certs | AT | Result   |                | RL  | Qual  | Units             | DF        | Analyz                   | ed     |
|  |   |       |    | Meth     | nod: EPA 350.1 | Rev | 2.0   |                   | Analy     | st: ABG                  |        |
| Nitrogen, Ammonia                        | as N  |       |    | Prep Met | nod: EPA 350.1 | Rev | 2.0   | Prep              | Date/Tim  | ne:09/06/2019 1          | 1:32   |

ND

0.10

А

di

Nitrogen, Ammonia (As N)

mg/L

1

| Analytical Re                            | esults  |       |    |           |                 | Date:  | F                   | riday, S | September 6,             | 2019  |
|--|---|-------|----|-----------|-----------------|--------|---------------------|----------|--------------------------|-------|
| Client:<br>Client Project:               | Arcelor Mittal USA, Inc.<br>Ammonia-Storm Ditch |       |    |           |                 | w      | ork Order/          | /ID:     | 19103                    | 04-03 |
| Client Sample ID:<br>Sample Description: | Cannon Storm Ditch                              |       |    |           |                 |        | ampled:<br>eceived: |          | 09/06/2019<br>09/06/2019 |       |
| Matrix:                                  | Aqueous   |       |    |           |                 |        |                     |          |                          |       |
| Analyses                                 |   | Certs | AT | Result    | RI              | Qual   | Units               | DF       | Analyze                  | d     |
|  |   |       |    | Meth      | od: EPA 350.1 R | ev 2.0 |                     | Analy    | st: ABG                  |       |
| Nitrogen, Ammonia                        | as N  |       |    | Prep Meth | od: EPA 350.1 R | ev 2.0 | Prep                | Date/Tim | ne:09/06/2019 13         | 3:03  |

ND

0.10

А

di

Nitrogen, Ammonia (As N)

mg/L

1

| Analytical Re                            | esults  |       |    |          |                |       | Date: | F                 | riday, S | September 6              | 2019   |
|--|---|-------|----|----------|----------------|-------|-------|-------------------|----------|--------------------------|--------|
| Client:<br>Client Project:               | Arcelor Mittal USA, Inc.<br>Ammonia-Storm Ditch |       |    |          |                |       | Wa    | ork Order         | /ID:     | 19103                    | 804-04 |
| Client Sample ID:<br>Sample Description: | NW Storm Ditch                                  |       |    |          |                |       |       | mpled:<br>ceived: |          | 09/06/2019<br>09/06/2019 |        |
| Matrix:                                  | Aqueous   |       |    |          |                |       |       | cerveu.           |          | 00/00/2010               | 0.00   |
| Analyses                                 |   | Certs | AT | Result   |                | RL    | Qual  | Units             | DF       | Analyz                   | ed     |
|  |   |       |    | Met      | nod: EPA 350.4 | 1 Rev | 2.0   |                   | Analy    | st: ABG                  |        |
| Nitrogen, Ammonia                        | as N  |       |    | Prep Met | nod: EPA 350.4 | l Rev | 2.0   | Prep              | Date/Tim | ne:09/06/2019 1          | 3:03   |

ND

0.10

А

di

Nitrogen, Ammonia (As N)

mg/L

1

| Analytical Re              | esults  |       |    |          |                    | Date: | Frid         | ay, S | September 6, 2019   |
|----------------------------|---|-------|----|----------|--------------------|-------|--------------|-------|---------------------|
| Client:<br>Client Project: | Arcelor Mittal USA, Inc.<br>Ammonia-Storm Ditch |       |    |          |                    | W     | ork Order/ID | :     | 1910304-05          |
| Client Sample ID:          | SWTP Effluent/Clarifiers                        |       |    |          |                    | Sa    | mpled:       |       | 09/06/2019 0:00     |
| Sample Description:        |   |       |    |          |                    | Re    | eceived:     |       | 09/06/2019 9:55     |
| Matrix:                    | Aqueous   |       |    |          |                    |       |              |       |                     |
| Analyses                   |   | Certs | AT | Result   | RL                 | Qual  | Units        | DF    | Analyzed            |
|                            |   |       |    | Met      | nod: EPA 350.1 Rev | 2.0   | /            | Analy | st: ABG             |
| Nitrogen, Ammonia          | as N  |       |    | Prep Met | nod: EPA 350.1 Rev | 2.0   | Prep Dat     | e/Tim | ne:09/06/2019 13:03 |

A 0.12

di

Nitrogen, Ammonia (As N)

mg/L

0.10

#### **Analytical Results** Date: Friday, September 6, 2019 Arcelor Mittal USA, Inc. **Client:** Ammonia-Storm Ditch **Client Project:** Work Order/ID: 1910304-06 031 09/06/2019 0:00 **Client Sample ID:** Sampled: 09/06/2019 9:55 Sample Description: Received: Matrix: Aqueous Certs AT Result RL Units Analyses Qual DF Analyzed Method: EPA 350.1 Rev 2.0 Analyst: ABG Prep Method: EPA 350.1 Rev 2.0 Prep Date/Time: 09/06/2019 13:03 Nitrogen, Ammonia as N

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di

Nitrogen, Ammonia (As N)

ND

0.10

mg/L

1

#### **Analytical Results** Date: Friday, September 6, 2019 Arcelor Mittal USA, Inc. **Client: Client Project:** Ammonia-Storm Ditch Work Order/ID: 1910304-07 999 09/06/2019 0:00 **Client Sample ID:** Sampled: 09/06/2019 9:55 Sample Description: Received: Matrix: Aqueous Certs AT Result RL Units Analyses Qual DF Analyzed Method: EPA 350.1 Rev 2.0 Analyst: ABG Prep Method: EPA 350.1 Rev 2.0 Prep Date/Time: 09/06/2019 13:03 Nitrogen, Ammonia as N

0.13

А

di

Nitrogen, Ammonia (As N)

0.10

mg/L

1

#### **Analytical Results** Date: Friday, September 6, 2019 Arcelor Mittal USA, Inc. **Client:** Ammonia-Storm Ditch **Client Project:** Work Order/ID: 1910304-08 001 09/06/2019 0:00 **Client Sample ID:** Sampled: 09/06/2019 9:55 Sample Description: Received: Matrix: Aqueous Certs AT Result RL Units Analyses Qual DF Analyzed Method: EPA 350.1 Rev 2.0 Analyst: ABG Prep Method: EPA 350.1 Rev 2.0 Prep Date/Time: 09/06/2019 13:03 Nitrogen, Ammonia as N

0.29

А

di

Nitrogen, Ammonia (As N)

0.10

mg/L

1

#### A,B = Target Analyte

- I = Internal Standard M = Summation Analyte
- S = Surrogate

T = Tentatively Identified Compound (TIC, concentration estimated)

### **QC SAMPLE IDENTIFICATIONS**

- BLK = Method Blank DUP = Method Duplicate BS = Method Blank Spike MS = Matrix Spike ICB = Initial Calibration Blank CCB = Continuing Calibration Blank CRL = Client Required Reporting Limit PDS = Post Digestion Spike QCS = Quality Control Standard
- ICSA = Interference Check Standard "A" ICSAB = Interference Check Standard "AB" BSD = Method Blank Spike Duplicate MSD = Matrix Spike Duplicate ICV = Initial Calibration Verification CCV = Continuing Calibration Verification OPR = Ongoing Precision and Recovery Standard SD = Serial Dilution

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#### CERTIFICATIONS (Certs)

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

- d Illinois EPA drinking water, wastewater and solid waste analysis (#200064)
- <sup>i</sup> Kansas Dept Health & Env. NELAP (#E-10397)

#### FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

| RL:  | Reporting Limit             |
|------|-----------------------------|
| RPD: | Relative Percent Difference |

### **Cooler Receipt Log**

Cooler ID: Default Cooler

#### Comments

No time. Samples preserved at lab

#### **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 |



| Let A lange and the lange of the lange   | 🚯 MICROBAC*   |  |   | CHAIN OF CUSTODY RECORD<br>Number 152284    |
|--|---------------|--|---|---|
| Moders: Clert Name: Boutine (5 to 7 business days)   Address: Chr, State, Tip: Insufficients (outly lab)   Address: Chr, State, Tip: Insufficients (outly lab)   Chr, State, Tip: Chr, State, Tip: Insufficients (outly lab)   Chr, State, Tip: Chr, State, Tip: Insufficients (outly lab)   Chr, State, Tip: Chr, State, Tip: Insufficients (outly lab)   Chr, State, Tip: Chr, State, Tip: Insufficients (outly lab)   Location: Taephone No:: Compliance North   Location: Sampler Signature: Sampler Phone No::   Sallsoud (5), Stadge, Ou, Wipe, Drinking Water (DW), Gourndwater (OW), Surface Water (SW), Water Water (OW), Other (specify) Insufficients (outly lab)   Main (1) Sallsoud (5), Stadge, Ou, Wipe, Drinking Water (DW), Gourndwater (OW), Surface Water (SW), Water Water (OW), Other (specify) Insufficients (outly lab)   Main (1) Sallsoud (5), Stadge, Ou, Water (DW), Gourndwater (OW), Surface Water (SW), Water Water (DW), Other (specify) Insufficients (outly lab)   Main (1) Collected Collected Collected Insufficients (outly lab)   Main (1) Collected Collected Disposition Insufficients (outly lab)   Main (1) Collected Collected Disposition Insufficients (outly lab)   Main (1)  | 1 1           | Invoice Address  | Turnaround Time   |   |
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| III Fact. Zp:<br>Cutact: City. State. Zp:<br>Contact: (needed by)<br>contact: (needed by)<br>contact:   III Fac. Tope Telephone No.: Completeres   Telephone No.: Completeres Send thooles via: Mail   III Fac. Fac. Fac. Fac.   III Fac. Fac. Mail Fac. Fac.   III Send thooles via: Send thooles via: Mail Fac. Fac.   III Sampler Signature: Sampler Signature: Sampler Signature: Sampler Signature: Sampler Signature:   Sampler Signature: Sampler Signature: Sampler Commission (S). Solution Resulting Attent (NW), Other (Specify) Pacerstron Resulting Attent (NW), Other (Specify)   Samule ID Date Thread Sampler Signature: Sampler Signature:   Samule ID Constant Sampler Signature: Sampler Signature: Sampler Signature:   Samule ID Constant Sampler Signature: Sampler Signature: Sampler Signature:   Samule ID Constant Constant Sampler Signature: Sampler Signature:   Samule ID Constant Constant Constant Pacersteria:   Constant Constant Constanture: Constanture:   Co   |               | Address:   |   | Holding Time                                |
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| American Sampler Signature: Sampler Signature:   set: (1) HNO3, (2) H2SO4, (3) HC, (4) NaOH, (5) Zurc Acetate. (6) Nethinol. (7) Sodium Bisulfate. (8) Sodium Bisulfate. (9) Heanen. (U) Unpresented   set: (1) HNO3, (2) H2SO4, (3) HC, (4) NaOH, (5) Zurc Acetate. (6) Nethinol. (7) Sodium Bisulfate. (8) Sodium Bisulfate. (9) Heanen. (0) Unpresented   set: (1) HNO3, (2) H2SO4, (3) HC, (4) NaOH, (5) Zurc Acetate. (6) Nethinol. (7) Sodium Bisulfate. (8) Sodium Bisulfate. (9) Heanen. (0) Unpresented   set: (1) HNO3, (2) H2SO4, (3) HC, (4) NaOH, (5) Zurc Acetate. (6) Nethinol. (7) Sodium Bisulfate. (8) Sodium Bisulfate. (9) Heanen. (0) Unpresented   Samuele D Dete: Three (7) No   American Dete: Three (7) No   American Dete: No (9) No   American Three (7) No (7) No   American Dete: No (7) No   American Dete: No (9) No   American Dete: No (7) No   American Dete: No (9) No   American Dete: No No   American Dete: No (9) No   American Dete: No No   American Dete: No (10) No   American Dete: No No  |               | Location:  |   | □ Yes                                       |
| ear: Solf Solid (S), Slage, Oi, Wee, Drinking Water (DW), Grandwarer (GW), Surface Water (SW), Wate Water (WW), Other (specify)<br>ear: Solf Solid (S), Slage, Oil (S) And Acetate. (D) Fectuario (D) Solum Baufater, (D) Heame, (U) Uppreserved<br>Ear Plate of Containers (D) Fectuario (D) Solum Baufater, (D) Heame, (U) Uppreserved<br>Ear Plate of Containers (D) Fectuario (D) Solum Baufater, (D) Heame, (U) Uppreserved<br>Ear Plate of Containers (D) Fectuario (D) Solum Baufater, (D) Heame, (U) Uppreserved<br>Ear Plate of Containers (D) Fectuario (D) Fectuari   | tam Hell      | Sampler Signature:   | 1   |   |
| Same ID Date Time Concerned Mark   Same ID Date Time Concerned Mark   Same ID Date Time Concerned Mark   L Mark P(L) P P P   P P(L) P P P P   P P P P P   P P P P P   P P P P P   P P P P P   P P P P P  |               | Oil, Wipe, Drinking Water (DW), Groundwater (GV<br>, (3) HCl, (4) NaOH, (5) Zinc Acetate, (6) Methar | <li>W), Surface Water (SW), Waste Water (WW), Oth<br/>nol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate,</li> | er (specify)<br>(9) Hexane, (U) Unpreserved |
| Sample D<br>Sample D<br>Large All of the state o   |               | SJE  | 1,2   |   |
| Latter Time Collected Date Time Collected Date Collected Colle   |               |  |   | -   |
| L.   Plate   qll   qll <th< td=""><td></td><td>Collected<br/>No. of (<br/>Garab / o</td><td>servative<br/>ypes **</td><td>19-TO-204</td></th<>   |               | Collected<br>No. of (<br>Garab / o   | servative<br>ypes **  | 19-TO-204                                   |
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