



July 15, 2016

Reference No. 058502

Mr. Nate Nemani  
U.S. Environmental Protection Agency, Region 5  
Waste Management Division  
77 West Jackson Blvd., LU 9J  
Chicago, IL 60604 3590

**Transmitted via E mail**

Dear Mr. Nemani:

**Re: Second Quarter 2016 Progress Report  
Performance Based Administrative Order on Consent  
RCRA Corrective Action  
Saginaw Nodular Iron, 2100 Veterans Memorial Parkway, Saginaw, MI  
U.S. EPA ID No. MID 041 793 340**

In accordance with the Performance-Based Administrative Order on Consent (Docket No. RCRA-05-2011-0023) between the U.S. Environmental Protection Agency Region 5 (U.S. EPA) and Revitalizing Auto Communities Environmental Response Trust (RACER), please find the attached progress report for the second quarter of 2016 (April 1, 2016 through June 30, 2016).

Please contact me if you would like to discuss this matter further.

Yours truly,

GHD

A handwritten signature in black ink that reads 'J. Pardys'.

John-Eric Pardys, P.Eng.

JEP/wg/31

Encl. Attachment A – Second Quarter 2016 Progress Report

cc: Rick Parson, MDEQ (via e-mail)  
Saginaw Public Library (Public Information Repository)  
David Favero, RACER (via e-mail)  
Michael Tomka, GHD (via e-mail)

Attachment A  
Second Quarter 2016 Progress Report  
Performance-Based Administrative  
Order on Consent  
Former Saginaw Nodular Iron, Saginaw, MI  
April 1, 2016 to June 30, 2016

## Attachment A

### Work Performed this Quarter

The following work was performed during the second quarter of 2016 at the Nodular facility:

- Prepared and submitted NPDES renewal application on April 2, 2016.
- Prepared and submitted the first quarter progress report for 2016 on April 14, 2016.
- Prepared and submitted Budget Amendment No.1 for additional characterization of the Secondary Pond and Lagoon 5 areas on April 25, 2016, which was approved by U.S. EPA on April 28, 2016.
- Prepared and submitted sediment characterization work plan for the Secondary Pond and Lagoon 5 on April 27, 2016.
- Continued evaluation of existing data to determine if further investigation is necessary to support selection of corrective measures.
- Completed additional characterization of sediments and underlying soil in the Secondary Pond and Lagoon 5 the week of May 2, 2016.
- Prepared and submitted a request to modify (lower) Outfall 021 to the MDEQ on June 7, 2016. Additional details for the lowering of Outfall 021 were provided at the request of the MDEQ on June 13, 2016.
- Lowered Outfall 021 on June 23, 2016 to facilitate evaluation of impacted sediments and in preparation for expected work in the Secondary Pond.
- Submitted monthly electronic discharge monitoring reports for NPDES permit. There were multiple discharge events from Outfall 021A (Secondary Pond) and Outfall 022A (North Ditch) during this reporting period. There were no exceedances of discharge limits. Completed periodic inspections for SWPPP and collected level measurements of secondary pond and North Ditch.

### Data Available During this Quarter

- NPDES discharge sampling data was posted by April 20, 2016 for the discharges in March 2016 and by May 20, 2016 for the discharges in April, 2016. A copy of the electronic discharge monitoring reports is provided in Attachment A.1. The discharge sampling data collected in June will be posted by July 20, 2016 and will be included in the next quarterly report.
- A memorandum summarizing the results of the Secondary Pond and Lagoon 5 characterization will be provided under separate cover.
- As part of the demolition, material was characterized and re-located on-Site. The data will be provided in a separate memo.

### Problems Encountered

None.

### Summary of Problem Resolution

None.

## Estimated Percent Complete and Information Summary for Selected Activities

Task	Estimated % Complete
1. IU G – FORMER NODULAR IRON PLANT OM&M	50%
<u>Annual EI Sampling (5-years completed to date by RACER, 2-years completed by MLC, and 3-years completed by GMC)</u> (Estimated percent complete assumes the EI monitoring program is replaced with a revised groundwater monitoring program upon approval of the CMP by U.S. EPA, anticipated to occur in 2017)	
<ul style="list-style-type: none"><li>• 2011 EI sampling was completed in November 2011 and reporting was submitted to U.S. EPA April 18, 2012.</li><li>• 2012 EI sampling was completed in November 2012 and reporting was submitted to U.S. EPA March 11, 2013.</li><li>• 2013 EI Sampling was completed in November 2013 and reporting was submitted to U.S. EPA February 13, 2014.</li><li>• 2014 EI sampling was completed in November 2014 and reporting was submitted to U.S. EPA February 10, 2015.</li><li>• 2015 EI sampling was completed in November 2015 and reporting was submitted to U.S. EPA February 10, 2016.</li></ul>	
<u>Additional delineation of impacts in soil</u>	
<ul style="list-style-type: none"><li>• Work plan for additional delineation of manganese and PCB impacts in soil in the south portion of IU G submitted to U.S. EPA on February 27, 2015 and approved by U.S. EPA on March 2, 2015.</li><li>• Additional delineation of manganese and PCB impacts was completed during March and April 2015. A summary of the investigation was submitted to U.S. EPA on May 8, 2015.</li><li>• Work plan for additional delineation of PCB impacts in soil above 10 mg/kg in the south portion of IU G submitted to U.S. EPA on July 15, 2015 and approved by U.S. EPA on July 30, 2015.</li><li>• Additional delineation of PCB impacts above 10 mg/kg was completed in August 2015. A summary of the investigation is being prepared.</li><li>• Review available data to evaluate if additional delineation is necessary for impacted soil at the overall Site.</li></ul>	
<u>Ammonia concentrations above MDEQ Groundwater Surface Water Interface Criteria</u>	
<ul style="list-style-type: none"><li>• Ammonia in groundwater evaluation was submitted to U.S. EPA on April 6, 2015 and to MDEQ on April 8, 2015.</li></ul>	

Task	Estimated % Complete
2. IU H – WWTP CLOSURE	
<u>Secondary Pond</u>	35%
<ul style="list-style-type: none"> <li>• Characterization Study on Secondary Pond completed in June of 2011.</li> <li>• Emergency overflow for secondary pond installed on March 13, 2012. The emergency overflow was lowered approximately 6 feet on June 23, 2016.</li> <li>• DEQ issued NPDES permit for the Site on August 24, 2012.</li> <li>• MDEQ modified NPDES sampling requirements with most of the requested changes in RACER's January 8, 2015 request. As a result of the lowering of the emergency overflow, the modification to the NPDES sampling requirements were rescinded.</li> <li>• Additional Characterization Study on Secondary Pond and Lagoon 5 was completed in March 2016 and May 2016. A summary of the investigation is being prepared.</li> <li>• NPDES renewal application was prepared and submitted April 2, 2016.</li> <li>• Review available sediment data to evaluate if additional delineation is necessary and to evaluate remedial alternatives.</li> <li>• Discharge of water under NPDES permit to maintain freeboard in the secondary pond until October 2016 when the NPDES permit expires. Prior to permit termination, RACER will evaluate and provide a proposal to U.S. EPA and MDEQ regarding the need for further sampling or other action.</li> </ul>	
<u>Primary Basins</u>	100%
<ul style="list-style-type: none"> <li>• Work plan for stabilizing primary settling basins submitted to U.S. EPA on July 31, 2012 and Work Plan approved by U.S. EPA on September 18, 2012.</li> <li>• Primary settling basin stabilization work was completed June 20, 2013. A construction completion report was submitted to U.S. EPA on September 4, 2013.</li> </ul>	
<u>North Ditch</u>	45%
<ul style="list-style-type: none"> <li>• Sampling and Analysis Plan for the North Ditch submitted to U.S. EPA on April 26, 2013 and was approved by U.S. EPA on July 8, 2013.</li> <li>• North Ditch Investigation and additional monitoring completed the week of July 15, 2013. The results of the investigation were submitted to U.S. EPA on October 23, 2013.</li> <li>• Stabilization Alternative Evaluation and Recommendation for the North Ditch was submitted to U.S. EPA on February 26, 2014.</li> </ul>	

Task	Estimated % Complete
<ul style="list-style-type: none"> <li>• Obtain necessary permits/agreements to perform work               <ul style="list-style-type: none"> <li>– Joint permit was received on August 19, 2015.</li> <li>– Floodplain permit application was prepared and submitted to the City of Saginaw on May 4, 2015.</li> <li>– Other permits needed include: County of Saginaw soil erosion and sedimentation control permit.</li> <li>– Other agreements: access from adjacent property owners.</li> </ul> </li> <li>• Implement approved plan (pending).</li> </ul>	
3. IU I- AREA CLOSURE	
<ul style="list-style-type: none"> <li>• Review available data to evaluate if additional characterization is necessary for impacted soil.</li> </ul>	75%
<u>Classified Sand Pile</u>	
<ul style="list-style-type: none"> <li>• Removed all classified sand pile as part of the primary basin stabilization work.</li> </ul>	100%
4. IU I – STAGING AREA OM&M	NA
<ul style="list-style-type: none"> <li>• No activities proposed or pending at this time.</li> </ul>	
5. OTHER – RCRA CORRECTIVE ACTION REPORTING AND OTHER RELATED REPORTING	
<u>Budget Process</u>	On-going
<ul style="list-style-type: none"> <li>• U.S. EPA approved the 2012 EA Budget Authorization Request on December 22, 2011.</li> <li>• U.S. EPA approved the 2012 Annual EA Budget Amendment No. 1 on September 19, 2012.</li> <li>• U.S. EPA approved the 2013 EA Budget Authorization Request on January 3, 2013.</li> <li>• U.S. EPA approved the 2014 EA Budget Authorization Request on November 22, 2013</li> <li>• U.S. EPA approved the 2015 EA Budget Authorization Request on November 20, 2014</li> <li>• U.S. EPA approved the 2015 Annual EA Budget Amendment No. 1 on March 20, 2015</li> <li>• U.S. EPA approved the 2016 EA Budget Authorization Request on November 20, 2015.</li> <li>• U.S. EPA approved the 2016 Annual EA Budget Amendment No. 1 on April 28, 2016.</li> </ul>	

Task	Estimated % Complete
<p data-bbox="326 285 735 312">RCRA Corrective Action Reporting</p> <ul data-bbox="326 348 1258 867" style="list-style-type: none"> <li data-bbox="326 348 1170 375">• Submitted CCR documentation to U.S. EPA on November 18, 2011.</li> <li data-bbox="326 392 1089 420">• Submitted Supplemental RFI Report on September 28, 2012.</li> <li data-bbox="326 436 1105 499">• Submitted Draft Corrective Measures Proposal to U.S. EPA on April 1, 2013</li> <li data-bbox="326 516 1003 543">• Submit revised Corrective Measures Proposal – TBD.</li> <li data-bbox="326 560 1247 657">• Submitted Summary of WMU status to U.S. EPA on January 22, 2015 and to MDEQ on January 26, 2015. MDEQ approved the closure of Nodular Iron Oil House RCRA Hazardous Waste Area in a letter dated May 8, 2016.</li> <li data-bbox="326 674 1235 737">• Prepared response to comments from U.S. EPA on the Supplemental RFI and CMP – To be determined (TBD).</li> <li data-bbox="326 753 980 781">• Prepare Declaration of Restrictive Covenant – TBD.</li> <li data-bbox="326 798 1057 825">• Prepare Corrective Measures Implementation Plan – TBD.</li> <li data-bbox="326 842 1114 869">• Prepare Final Remedy Construction Completion Report – TBD.</li> </ul>	60%

Other Related Reporting

- Submit monthly DMRs.

On-going

**Summary of Contacts with Interested Parties**

- There are periodic discussions with local representatives regarding the status of remediation at the Site and potential redevelopment possibilities and options. Discussions with a potential buyer for a portion of the Site and with MDEQ and U.S. EPA with respect to possible wetlands in the portion of the Site being considered for purchase are on-going.

**Projected Work for Next Reporting Period**

- Lower level in Secondary Pond and evaluate exposed sediments.
- Complete review of existing data to evaluate if additional delineation is necessary of impacted soil at the Site.
- Prepare memorandum summarizing the results of the additional characterization of the Secondary Pond and Lagoon 5.
- Evaluate and provide a proposal to U.S. EPA and MDEQ regarding the need for further sampling or other action with regards to the Secondary Pond and Lagoon 5 water and sediments.
- Update SWPPP to incorporate recent work completed at the Site.
- Continue to work with adjacent property owners as appropriate to obtain needed authorizations to complete the North Ditch work and prepare bid documents.
- Prepare responses to or meet with U.S. EPA to discuss any comments received on the Supplemental RFI Report and Draft CMP.
- Evaluate the appropriate time to update and submit a revised CMP.
- Coordinate with potential buyer from environmental perspective as necessary.

- Complete periodic inspections per the SWPPP and level measurements of secondary pond.
- Perform discharge event from secondary pond, if necessary, and complete any necessary monitoring required by the NPDES permit for Outfalls 021A (secondary pond) and 022A (North Ditch).




Attachment A-1  
MiWaters  
DMR March and April 2016 Discharge Summary

MiWaters - DMR Detail - Summary  
**Outfall 21 - March 2016 Discharges**

No Discharge

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq	Sample Type
<b>Flow 50050 Final Effluent (1)</b>	Sample Measurement	<input type="text" value="0.697"/>	<input type="text" value="0.778"/>	MGD	***	***	***	Weekly when Discharging	Recorded Daily Flow
	Permit Requirement	(Report) Maximum Monthly Average	(Report) Maximum Daily		***	***	***	Weekly when Discharging	Recorded Daily Flow
<b>Total Suspended Solids 00530 Final Effluent (1)</b>	Sample Measurement	***	***	***	<input type="text" value="4"/>	<input type="text" value="4"/>	mg/L	Weekly when Discharging	3-Portion Composite
	Permit Requirement	***	***	***	35 Maximum Monthly Average	70 Maximum Daily		Weekly when Discharging	3-Portion Composite
<b>Carbonaceous Biochemical Oxygen Demand (CBOD5) 80082 Final Effluent (1)</b>	Sample Measurement	***	***	***	***	<input type="text" value="2"/>	mg/L	Daily when Discharging	Grab
	Permit Requirement	***	***	***	***	28 Maximum Daily		Daily when Discharging	Grab
<b>Ammonia Nitrogen (as N) 00610 Final Effluent (1)</b>	Sample Measurement	***	***	***	***	<input type="text" value="0.2"/>	mg/L	Weekly when Discharging	Grab
	Permit Requirement	***	***	***	***	10 Maximum Daily		Weekly when Discharging	Grab
<b>Outfall Observation 84130 Final Effluent (1)</b>	Sample Measurement	<input type="text" value="yes"/>	***	yes/no	***	***	***	Weekly when Discharging	Visual
	Permit Requirement	(Report) Yes/No	***		***	***	***	Weekly when Discharging	Visual
<b>pH 00400 Final Effluent (1)</b>	Sample Measurement	***	***	***	<input type="text" value="8.74"/>	<input type="text" value="8.9"/>	su	Daily when Discharging	Grab
	Permit Requirement	***	***	***	6.5 Minimum Daily	9.0 Maximum Daily		Daily when Discharging	Grab

MiWaters - DMR Detail - Summary  
**Outfall 21 - March 2016 Discharges**

<b>Dissolved Oxygen 00300</b> <b>Final Effluent (1)</b>	Sample Measurement	****	****	****	<input type="text" value="*H"/> 	****	****	mg/L	Daily when Discharging	Grab
	Permit Requirement	****	****	6.0 Minimum Daily		****	****		Daily when Discharging	Grab
<b>Turbidity 00070</b> <b>Final Effluent (1)</b>	Sample Measurement	****	****	****	<input type="text" value="*G"/> 	<input type="text" value="*G"/> 		NTU	Weekly when Discharging	Grab
	Permit Requirement	****	****	****	80 Maximum Monthly Average	160 Maximum Daily			Weekly when Discharging	Grab

**General Report Comments**

### Outfall 21 - March 2016 Discharges

No Discharge

Parameter	Flow 50050	Total Suspended Solids 00530	Carbonaceous Biochemical Oxygen Demand (CBOD5) 80082	Ammonia Nitrogen (as N) 00610	Outfall Observation 84130	pH 00400
Stage	Final Effluent (1)	Final Effluent (1)	Final Effluent (1)	Final Effluent (1)	Final Effluent (1)	Final Effluent (1)
Limit	(Report) MGD	70 mg/L	28 mg/L	10 mg/L	(Report) yes/no	6.5 SU
Stat Base	Maximum Daily	Maximum Daily	Maximum Daily	Maximum Daily	Yes/No	Minimum Daily
3/1/2016	0.778	4	2	0.2	Yes	8.74
3/2/2016	0.616	4	2	0.2	Yes	8.90
3/3/2016						
3/4/2016						
3/5/2016						
3/6/2016						
3/7/2016						
3/8/2016						
3/9/2016						
3/10/2016						
3/11/2016						
3/12/2016						
3/13/2016						
3/14/2016						
3/15/2016						
3/16/2016						
3/17/2016						
3/18/2016						

MiWaters - DMR Detail - Daily  
Outfall 21 - March 2016 Discharges

3/19/2016						
3/20/2016						
3/21/2016						
3/22/2016						
3/23/2016						
3/24/2016						
3/25/2016						
3/26/2016						
3/27/2016						
3/28/2016						
3/29/2016						
3/30/2016						
3/31/2016						

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**General Report Comments**

MiWaters - DMR Detail - Summary  
 Outfall 22 - March 2016 Discharges


No Discharge

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq	Sample Type
Flow 50050 Final Effluent (1)	Sample Measurement	0.0454	0.1008	MGD	***	***	***	Weekly when Discharging	Recorded Daily Flow
	Permit Requirement	(Report) Maximum Monthly Average	(Report) Maximum Daily		***	***	***	Weekly when Discharging	Recorded Daily Flow
Total Suspended Solids 00530 Final Effluent (1)	Sample Measurement	***	***	***	4.33	5	mg/L	Weekly when Discharging	3-Portion Composite
	Permit Requirement	***	***	***	35 Maximum Monthly Average	70 Maximum Daily		Weekly when Discharging	3-Portion Composite
pH 00400 Final Effluent (1)	Sample Measurement	***	***	7.68	***	8.3	SU	Weekly when Discharging	Grab
	Permit Requirement	***	***	6.5 Minimum Daily	***	9.0 Maximum Daily		Weekly when Discharging	Grab
Turbidity 00070 Final Effluent (1)	Sample Measurement	***	***	***	*G	*G	NTU	Weekly when Discharging	Grab
	Permit Requirement	***	***	***	80 Maximum Monthly Average	160 Maximum Daily		Weekly when Discharging	Grab



General Report Comments

MiWaters - DMR Detail - Daily  
**Outfall 22 - March 2016 Discharges**

No Discharge

Parameter	Flow 50050	Total Suspended Solids 00530	pH 00400	pH 00400	Turbidity 00070
Stage	Final Effluent (1)	Final Effluent (1)	Final Effluent (1)	Final Effluent (1)	Final Effluent (1)
Limit	(Report) MGD	70 mg/L	6.5 SU	9.0 SU	160 NTU
Stat Base	Maximum Daily	Maximum Daily	Minimum Daily	Maximum Daily	Maximum Daily
3/1/2016					
3/2/2016					
3/3/2016					
3/4/2016					
3/5/2016					
3/6/2016					
3/7/2016					
3/8/2016					
3/9/2016					
3/10/2016	0.0014	4	7.68	7.68	*G 
3/11/2016					
3/12/2016					
3/13/2016					
3/14/2016					
3/15/2016					

### Outfall 22 - March 2016 Discharges

3/16/2016	0.1008	5	7.79	7.79	*G	
3/17/2016						
3/18/2016						
3/19/2016						
3/20/2016						
3/21/2016						
3/22/2016						
3/23/2016						
3/24/2016						
3/25/2016						
3/26/2016						
3/27/2016						
3/28/2016						
3/29/2016						
3/30/2016						
3/31/2016	0.0338	4	8.3	8.3	*G	

**General Report Comments**

MiWaters - DMR Detail - Summary  
 Outfall 21 - April 2016 Discharges

No Discharge

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq	Sample Type
Flow 50050 Final Effluent (1)	Sample Measurement	<input type="text" value="1.04"/>	<input type="text" value="1.51"/>	MGD	***	***	***	Weekly when Discharging	Recorded Daily Flow
	Permit Requirement	(Report) Maximum Monthly Average	(Report) Maximum Daily		***	***	***	Weekly when Discharging	Recorded Daily Flow
Total Suspended Solids 00530 Final Effluent (1)	Sample Measurement	***	***	***	<input type="text" value="4"/>	<input type="text" value="4"/>	mg/L	Weekly when Discharging	3-Portion Composite
	Permit Requirement	***	***	***	35 Maximum Monthly Average	70 Maximum Daily		Weekly when Discharging	3-Portion Composite
Carbonaceous Biochemical Oxygen Demand (CBOD5) 80082 Final Effluent (1)	Sample Measurement	***	***	***	***	<input type="text" value="2"/>	mg/L	Daily when Discharging	Grab
	Permit Requirement	***	***	***	***	39 Maximum Daily		Daily when Discharging	Grab
Ammonia Nitrogen (as N) 00610 Final Effluent (1)	Sample Measurement	***	***	***	***	<input type="text" value="0.2"/>	mg/L	Weekly when Discharging	Grab
	Permit Requirement	***	***	***	***	(Report) Maximum Daily		Weekly when Discharging	Grab
Outfall Observation 84130 Final Effluent (1)	Sample Measurement	<input type="text" value="yes"/>	***	yes/no	***	***	***	Weekly when Discharging	Visual
	Permit Requirement	(Report) Yes/No	***		***	***	***	Weekly when Discharging	Visual
pH 00400 Final Effluent (1)	Sample Measurement	***	***	***	<input type="text" value="6.91"/>	<input type="text" value="7.21"/>	SU	Daily when Discharging	Grab
	Permit Requirement	***	***	***	6.5 Minimum Daily	9.0 Maximum Daily		Daily when Discharging	Grab

MiWaters - DMR Detail - Summary  
 Outfall 21 - April 2016 Discharges

<b>Dissolved Oxygen</b> 00300 <b>Final Effluent (1)</b>	Sample Measurement	***	***	11.84	***	***	mg/L	Daily when Discharging	Grab
	Permit Requirement	***	***	6.0 Minimum Daily	***	***		Daily when Discharging	Grab
<b>Turbidity</b> 00070 <b>Final Effluent (1)</b>	Sample Measurement	***	***	***	*G	*G	NTU	Weekly when Discharging	Grab
	Permit Requirement	***	***	***	80 Maximum Monthly Average	160 Maximum Daily		Weekly when Discharging	Grab

General Report Comments

MiWaters - DMR Detail - Daily  
 Outfall 21 - April 2016 Discharges

No Discharge

Parameter	Flow 50050	Total Suspended Solids 00530	Carbonaceous Biochemical Oxygen Demand (CBOD5) 80082	Ammonia Nitrogen (as N) 00610	Outfall Observation 84130	pH 00400
Stage	Final Effluent (1)	Final Effluent (1)	Final Effluent (1)	Final Effluent (1)	Final Effluent (1)	Final Effluent (1)
Limit	(Report) MGD	70 mg/L	39 mg/L	(Report) mg/L	(Report) yes/no	6.5 SU
Stat Base	Maximum Daily	Maximum Daily	Maximum Daily	Maximum Daily	Yes/No	Minimum Daily
4/1/2016						
4/2/2016						
4/3/2016						
4/4/2016						
4/5/2016						
4/6/2016						
4/7/2016	1.51	4	2	0.2	yes	7.17
4/8/2016	0.94	*G	2	*G	yes	6.91
4/9/2016						
4/10/2016						
4/11/2016						
4/12/2016	1.09	*G	2	*G	yes	7.05
4/13/2016	0.62	*G	2	*G	yes	7.21
4/14/2016						
4/15/2016						
4/16/2016						
4/17/2016						
4/18/2016						

### Outfall 21 - April 2016 Discharges

4/19/2016						
4/20/2016						
4/21/2016						
4/22/2016						
4/23/2016						
4/24/2016						
4/25/2016						
4/26/2016						
4/27/2016						
4/28/2016						
4/29/2016						
4/30/2016						

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**General Report Comments**