April 14, 2020 Reference No. 11208041

Mr. Zachary Sasnow **Transmitted Via Email**
U.S. Environmental Protection Agency, Region 5
Remediation Brach
Land, Chemicals, and Redevelopment Division
77 West Jackson Blvd., LR 16J
Chicago, Illinois
U.S.A. 60604

Dear Mr. Sasnow:

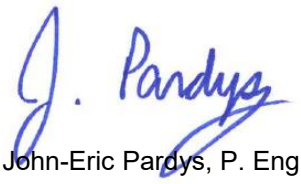
Re: Semi-Annual Progress Report (October 1, 2019 to March 31, 2020)
Performance Based Administrative Order on Consent
RCRA Corrective Action
Saginaw Nodular Iron, 2100 Veterans Memorial Parkway, Saginaw, MI
U.S. EPA ID No. MID 041 793 340

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 semi-annual progress report for the period October 1, 2019 to March 31, 2020. Please note that on June 27, 2018, U.S. EPA approved the reduction in frequency of progress reporting from quarterly to semi-annually.

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

Yours truly,

GHD



John-Eric Pardys, P. Eng.

JEP/kf/3

Encl. Attachment A – Semi-Annual Progress Report (October 1, 2019 to March 31, 2020)

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

Attachment A

Attachment A

Work Performed this Semi-Annual Period

The following work was performed during the semi-annual period October 1, 2019 to March 31, 2020 for the Nodular facility:

- Prepared and submitted semi-annual progress report on October 15, 2019 for the period April 1, 2019 to September 30, 2019.
- Obtained approval from U.S. EPA on October 2, 2019 to modify the scope of work for the PCB-impacted sediment removal from the Secondary Pond. The modification included limiting the sediment removal depth to 6-feet (ft) or top of clay, whichever was shallower, and the placement of a 1-ft clean cover including 2 percent total organic carbon.
- Completed activities associated with the removal of PCB-impacted sediments from the Secondary Pond including: installation of sheet pile; removal, stabilization, and off-Site disposal of sediments from Areas 1 and 2; placement of clean cover; and demobilization. Submitted Secondary Pond PCB-impacted sediment removal closure report to U.S. EPA on February 11, 2020. During an update call with U.S. EPA on March 12, 2020, U.S. EPA indicated they had completed a preliminary review of the closure report and indicated they had no substantive comments. A response from U.S. EPA is anticipated via email.
- Submitted a final Scope of Work to evaluate potential impacts of slag on surrounding soils in IU I, which was approved by U.S. EPA on October 18, 2019. Conducted incremental soil sampling in December 2019 and submitted the results on March 10, 2020. U.S. EPA responded on March 13, 2020 indicating they had no further comments.
- Submitted final 2020 budget request to U.S. EPA on October 29, 2019, which was approved by U.S. EPA on November 7, 2020.
- Submitted a final Additional North Ditch Sediment Sampling Work Plan which was approved by U.S. EPA on November 6, 2019. Conducted additional North Ditch sediment sampling in December 2019 and submitted the results, including an updated ecological risk assessment of the North Ditch, on February 12, 2020. U.S. EPA provided their approval of “no further work” required in the North Ditch on February 27, 2020.
- Submitted a joint EGLE/U.S. Army Corp wetland/floodplain permit application in relation to removal of PCB-impacted soil from IU G wetlands on November 20, 2019, which was approved on January 16, 2020.
- Prepared and submitted responses to U.S. EPA question relating to removing hexavalent chromium from the annual environmental indicator monitoring program on November 7, 2020. Submitted the 2019 annual environmental indicator groundwater sampling results, which also included additional groundwater sampling conducted in 2018 and 2019 in response to the Site-wide groundwater review, to U.S. EPA on January 17, 2020. U.S. EPA responded via email on January 22, 2020 approving the modification of adding a monitoring well location to the annual Environmental Indicator (EI) groundwater monitoring program and had no further comments.
- Finalized and submitted the stormwater pollution prevention plan review form to EGLE as required by NPDES Permit No. MI0059042 on January 6, 2020. Updated and revised the storm water pollution prevention plan on January 22, 2020.
- Prepared Notice of Termination request for NPDES permit and submitted the request to EGLE on April 1, 2020.
- Initiated preparation of a request for proposal to remove PCB-impacted soil from wetland area in IU G.

- Submitted monthly electronic discharge monitoring reports in accordance with NPDES Permit No. MI0059042. There was one discharge in October, one discharge in December, and 2 discharge events in January from Outfall 022A (North Ditch), all associated with rainfall events. There were no exceedances of discharge limits from Outfall 022A. There were 15 discharge days in September and three discharge days from Outfall 024A (eastern portion of Secondary Pond) to support removal of PCB-impacted sediment. There were a few exceedances of discharge limits for CBOD. Discharge was stopped following receipt of two consecutive laboratory results that exceeded CBOD discharge limits.
- Completed periodic inspections for SWPPP and collected level measurements of secondary pond and North Ditch.

Data Available During this Reporting Period

- NPDES discharge sampling results for the discharges in September, October, December, and January are provided in Attachment A.1. NPDES discharge sampling will be posted electronically per EGLE's requirement by April 20, 2020 for discharges in March 2020. A copy of the March electronic discharge monitoring reports will be provided in the next semi-annual progress report.

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**	
	Annual EI Sampling (8-years completed to date by RACER, 2-years completed by MLC, and 3-years completed by GMC). (Estimated percent complete assumes the EI monitoring program is replaced with a revised groundwater monitoring program upon approval of the CMS by U.S. EPA, anticipated to occur in 2020.) • 2011 EI sampling was completed in November 2011 and reporting was submitted to U.S. EPA April 18, 2012. • 2012 EI sampling was completed in November 2012 and reporting was submitted to U.S. EPA March 11, 2013. • 2013 EI Sampling was completed in November 2013 and reporting was submitted to U.S. EPA February 13, 2014. • 2014 EI sampling was completed in November 2014 and reporting was submitted to U.S. EPA February 10, 2015. • 2015 EI sampling was completed in November 2015 and reporting was submitted to U.S. EPA February 10, 2016. • 2016 EI sampling was completed in November 2016 and reporting was submitted to U.S. EPA January 4, 2017. • 2017 EI sampling was completed in May 2017 and reporting was submitted to U.S. EPA December 8, 2017. • 2018 EI sampling was completed in November 2018 and reporting was submitted to U.S. EPA February 15, 2019.	95%

Task		Estimated % Complete
	• 2019 EI sampling was completed in November 2019 and a report was submitted to U.S. EPA January 17, 2020. U.S. EPA responded via email on January 22, 2020 approving the modification of adding a monitoring well location to the annual Environmental Indicator (EI) groundwater monitoring program and had no further comments.	
	<u>Additional delineation of impacts in soil</u> • 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. • 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. • 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. • Additional delineation of PCB impacts above 10 mg/kg was completed in August 2015. A summary of the additional investigation of manganese and PCB impacts was submitted to U.S. EPA on February 15, 2017. U.S. EPA approved via a March 8, 2017 email the report and the recommendation to address the PCB impacts through deed restrictions as an interim measure.	95%
	<u>Ammonia concentrations above MDEQ Groundwater Surface Water Interface Criteria</u> • Ammonia in groundwater evaluation was submitted to U.S. EPA on April 6, 2015 and to MDEQ on April 8, 2015.	85%
	<u>Ecological Screening Assessment – Isolated Wetlands</u> • Conducted ecological risk assessment on some isolated wetlands formed in the 2012 time period in IU G and submitted the evaluation to U.S. EPA on January 4, 2019. The assessment concluded that there is minimal risk to ecological receptors and no further activity is required. During a conference call with U.S. EPA on the wetland assessment on September 6, 2019 U.S. EPA requested that RACER remove PCB-impacted surface soil. • A scope of work for the removal of wetland PCB-impacted soil and associated permitting requirements was provided to U.S. EPA via email on September 13, 2019. U.S. EPA responded on September 19, 2019 via email to proceed with obtaining the necessary permits to complete the removal of wetland PCB-impacted soil. • Submitted a Joint EGLE/USACE permit request as it relates to the removal of PCB-impacted soil from the isolated wetlands in IU G on November 20, 2019. EGLE granted the permit on January 16, 2020. • Removal of PCB-impacted soil is tentatively scheduled to be conducted in August/September 2020.	55%
2.	**IU H – WWTP Closure**	
	<u>Secondary Pond</u> • Characterization Study on Secondary Pond completed in June of 2011. • Emergency overflow for secondary pond installed on March 13, 2012. The emergency overflow was lowered approximately 6 feet on June 23, 2016. • DEQ issued NPDES permit for the Site on August 24, 2012.	95%

Task		Estimated % Complete
	• 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. • Additional Characterization Studies for Secondary Pond and Lagoon 5 were completed in March 2016, May 2016, August 2016, and September 2017. A summary of the September 2017 investigation results were submitted to U.S. EPA on November 6, 2017. A sediment pore water sampling Work Plan was submitted to U.S. EPA on January 29, 2018 and was approved by U.S. EPA on March 2, 2018. Sampling was conducted on April 17, 2018. The results were presented to U.S. EPA on May 11, 2018 and a memorandum summarizing the results was submitted on June 3, 2018. U.S. EPA provided comments on the pore water sample results on June 13, 2018 and responses to comments were provided to U.S. EPA on July 3, 2018, U.S. EPA provided email approval on September 17, 2018 to proceed with removal of PCBs >50 ppm in Secondary Pond sediments and following the removal, to allow the Secondary Ponds to naturalize, and to implement appropriate institutional controls to prevent hydrologic connection between the pond and on the pond and nearby surface water. • NPDES renewal application was prepared and submitted April 2, 2016. Comments on the application were received and responded to on July 12 and 29, 2016. A modification to the application (addition of new outfall through the eastern portion of the northern Secondary Pond berm, referred to as outfall 24) was submitted December 22, 2016. A draft of the permit was provided on July 14, 2017. Comments on the permit were provided to MDEQ on July 24, 2017. Comments were reviewed with MDEQ and a revised submission was made on September 20, 2017. MDEQ requested additional information on November 6, 2017, which was provided on November 6 and December 18, 2017. MDEQ requested on February 8, 2018 that a sample of the secondary pond be collected and submitted for analysis. The results were submitted to MDEQ on March 12, 2018. After a public review period, a new NPDES permit was issued and then became effective July 1, 2018. A notice of termination (NOT) request was prepared and submitted to EGLE on April 1, 2020. • A Draft Interim Measures Work Plan for the removal of PCB-impacted sediment was submitted to U.S. EPA on December 19, 2018, which was approved in principle by U.S. EPA on February 14, 2019. U.S. EPA requested additional detail on the work once bids had been received from the contractors. An amendment to the draft Work Plan was submitted to U.S EPA on July 16, 2019 and was approved with comments on August 5, 2019. A final copy of the executed amendment was distributed on August 20, 2019. • Activities associated with the removal of PCB-impacted sediment were completed in November 2019 and included: Site setup (access roads, decontamination pad/staging area setup, trailer), installation of berm to separate the east side of the Secondary Pond from the west, dewatering the western portion of the Secondary Pond, installation of sheet pile, removal of sediment, stabilization of sediment, placement of clean cover, off-Site disposal of sediments from Areas 1 and 2, and demobilization. A report summarizing the removal of PCB-impacted sediment from the Secondary Pond was submitted to U.S. EPA on February 11, 2020. During an update call with U.S. EPA on March 12, 2020, U.S. EPA indicated they had completed a preliminary review of the closure report and indicated they	

Task		Estimated % Complete
	had no substantive comments. A response from U.S. EPA is anticipated via email.	
	<u>Primary Basins</u> • 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. • Primary settling basin stabilization work was completed June 20, 2013. A construction completion report was submitted to U.S. EPA on September 4, 2013.	100%
	<u>North Ditch</u> • 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. • 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. • Stabilization Alternative Evaluation and Recommendation for the North Ditch was submitted to U.S. EPA on February 26, 2014. • Obtain necessary permits/agreements to perform stabilization work – Joint permit was received on August 19, 2015. – Floodplain permit application was prepared and submitted to the City of Saginaw on May 4, 2015. – Other permits needed include: County of Saginaw soil erosion and sedimentation control permit. – Other agreements: access from adjacent property owners. • Conducted ecological risk assessment on the North Ditch consistent with the approach for the Secondary Pond, as an alternative to implementing the stabilization work, and submitted the evaluation to U.S. EPA on March 14, 2019. The assessment concluded that no further activity was required in the North Ditch, beyond some additional sampling for black carbon. U.S. EPA provided comments on the assessment and agreed that additional sampling should be completed. • An Additional North Ditch Sediment Sampling Work Plan was submitted on September 11, 2019 to U.S. EPA. U.S. EPA provided comments on September 19, 2019 to which responses were prepared and submitted on September 26, 2019. A final revised Work Plan was submitted and approved by U.S. EPA on November 6, 2019. • Additional North Ditch sediment sampling was completed in December 2019 and the results, including an update to the ecological risk assessment, were submitted to U.S. EPA on February 12, 2020. U.S. EPA provided their approval of “no further work” required in the North Ditch on February 27, 2020.	95%
3.	**IU I- Area Closure**	
	<u>Classified Sand Pile</u> • Removed all classified sand pile as part of the primary basin stabilization work in 2013.	100%

Task		Estimated % Complete
	Slag Area • During a Site inspection in April 2019, two small areas in the southern portion of IU were identified as having slag. On September 19, 2019 a Scope of Work was submitted to U.S. EPA to evaluate potential impacts of slag on surrounding soils in IU I. U.S. EPA provided comments on September 24, 2019. A final revised Work Plan was submitted and approved by U.S. EPA on October 18, 2019. • Conducted incremental soil sampling in December 2019 and submitted the results on March 10, 2020. U.S. EPA responded on March 13, 2020 indicating they had no further comments.	100%
4.	**IU I – Staging Area OM&M**	**NA**
	• No activities proposed or pending at this time.	
5.	**Other – RCRA Corrective Action Reporting and Other Related Reporting**	
	Administrative Order on Consent • Signed by U.S. EPA and effective September 29, 2011.	100%
	Budget Process • U.S. EPA approved the 2012 EA Budget Authorization Request on December 22, 2011. • U.S. EPA approved the 2012 Annual EA Budget Amendment No. 1 on September 19, 2012. • U.S. EPA approved the 2013 EA Budget Authorization Request on January 3, 2013. • U.S. EPA approved the 2014 EA Budget Authorization Request on November 22, 2013 • U.S. EPA approved the 2015 EA Budget Authorization Request on November 20, 2014 • U.S. EPA approved the 2015 Annual EA Budget Amendment No. 1 on March 20, 2015 • U.S. EPA approved the 2016 EA Budget Authorization Request on November 20, 2015. • U.S. EPA approved the 2016 Annual EA Budget Amendment No. 1 on April 28, 2016. • U.S. EPA approved the 2017 EA Budget Authorization Request on December 7, 2016. • U.S. EPA approved the 2018 EA Budget Authorization Request on December 12, 2017. • U.S. EPA approved the 2019 EA Budget Authorization Request on November 23, 2018. • U.S. EPA approved the 2020 EA Budget Authorization Request on November 7, 2020.	On-going
	• RCRA Corrective Action Reporting • Submitted CCR documentation to U.S. EPA on November 18, 2011.	60%

Task		Estimated % Complete
	• Submitted Supplemental RFI Report on September 28, 2012. • A Site soil data evaluation was completed that compared Site soil data to current MDEQ (2013) Part 201 criteria and the DRAFT MDEQ (2017) Part 201 criteria to U.S. EPA. The evaluation was submitted to U.S. EPA on April 20, 2018. U.S. EPA provided comments on August 31, 2018, which were responded to on November 26, 2018. U.S. EPA's review of historical data is on-going as identified in an email dated June 4, 2019 from U.S. EPA. • A Site groundwater data evaluation was completed that compared Site groundwater data to current MDEQ (2013) Part 201 criteria and the DRAFT MDEQ (2017) Part 201 criteria to U.S. EPA. The evaluation was submitted to U.S. EPA on October 15, 2018. U.S. EPA is reviewing. In accordance with the recommendations in the October 15, 2018 groundwater evaluation. additional groundwater sampling was conducted in November 2018. The results were submitted in the 2019 EI annual sampling results submission on January 17, 2020. U.S. EPA responded via email on January 22, 2020 approving the modification of adding a monitoring well location to the annual Environmental Indicator (EI) groundwater monitoring program and had no further comments on the submittal. • Submit updated RFI Summary Report to U.S. EPA – May not be necessary per discussion with USEPA on January 30, 2020. • Submitted Draft Corrective Measures Proposal to U.S. EPA on April 1, 2013 • Submit revised Corrective Measures Proposal – May not be necessary per discussion with USEPA on January 30, 2020. • 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. • Respond to comments from U.S. EPA (when received) on the Supplemental RFI and CMP – To be determined (TBD). • Prepare and Record Declaration of Restrictive Covenant – TBD. • Prepare Corrective Measures Implementation Plan – TBD. • Prepare Final Remedy Construction Completion Report – TBD. • Prepare Request for RCRA Corrective Action Complete with Controls – TBD.	
	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.

Projected Work for Next Reporting Period (April 1, 2020 through September 30, 2020)

- Prepare draft 2021 Annual Environmental Action Budget Request.
- Review, discuss and respond to any comments received as a result of USEPA's review of Site Corrective Action information.
- Submit notice of termination for NPDES permit and respond to any comments provided by EGLE.

- Conduct PCB-impacted surficial soil removal, disposal and associated reporting.
- Provide support to U.S. EPA during its preparation of a Statement of Basis and the Final Decision process.
- Review current monitoring well network and prepare proposal for well abandonments.
- Complete periodic Site inspections per the SWPPP and measure water levels in the Secondary Pond.
- Perform discharge events from secondary pond, if necessary, and complete any necessary monitoring required by the NPDES permit.

Attachment A.1
EDMR Reports

☐ No Discharge

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq	Sample Type
Flow 50050 Final Effluent (1)	Sample Measurement	1.35	1.44	MGD	****	****	****	****	Daily	Report Total Daily Flow
	Permit Requirement	(Report) Maximum Monthly Average	(Report) Maximum Daily		****	****	****		Daily	Report Total Daily Flow
Total Suspended Solids 00530 Final Effluent (1)	Sample Measurement	****	****	****	****	10.5	18	mg/L	See Permit Requirements	3-Portion Composite
	Permit Requirement	****	****		****	35 Maximum Monthly Average	70 Maximum Daily		See Permit Requirements	3-Portion Composite
Carbonaceous Biochemical Oxygen Demand (CBOD5) 80082 Final Effluent (1)	Sample Measurement	****	****	****	****	****	29	mg/L	Daily	Grab
	Permit Requirement	****	****		****	****	7.2 Maximum Daily		Daily	Grab
Ammonia Nitrogen (as N) 00610 Final Effluent (1)	Sample Measurement	****	****	****	****	****	0.18	mg/L	Daily	Grab
	Permit Requirement	****	****		****	****	2.5 Maximum Daily		Daily	Grab
Total Mercury 71900 Final Effluent (1)	Sample Measurement	0.000000584224995	0.000000584224995	lbs/day	****	0.14	0.14	ng/L	Quarterly	Calculation
	Permit Requirement	(Report) Maximum Monthly Average	(Report) Maximum Daily		****	(Report) Maximum Monthly Average	(Report) Maximum Daily		Quarterly	Calculation
Total Zinc 01092 Final Effluent (1)	Sample Measurement	****	0	lbs/day	****	****	50	ug/L	Monthly	Grab
	Permit Requirement	****	47 Maximum Daily		****	****	1120 Maximum Daily		Monthly	Grab
Outfall Observation 84130 Final Effluent (1)	Sample Measurement	Yes	****	yes/no	****	****	****	****	Daily	Visual
	Permit Requirement	(Report) Yes/No	****		****	****	****		Daily	Visual
pH 00400 Final Effluent (1)	Sample Measurement	****	****	****	7.7	****	9	SU	Daily	Grab

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq	Sample Type
Dissolved Oxygen 00300 Final Effluent (1)	Permit Requirement	****	****	****	6.5 Minimum Daily	****	9.0 Maximum Daily	mg/L	Daily	Grab
	Sample Measurement	****	****		7.9	****	****		Daily	Grab
	Permit Requirement	****	****		6.0 Minimum Daily	****	****		Daily	Grab
Turbidity 00070 Final Effluent (1)	Sample Measurement	****	****	****	****	*g	*g	NTU	See Permit Requirements	Grab
	Permit Requirement	****	****		****	80 Maximum Monthly Average	160 Maximum Daily		See Permit Requirements	Grab

General Report Comments General Report Comments

No Discharge

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Parameter	Flow 50050	Total Suspended Solids 00530	Carbonaceous Biochemical Oxygen Demand (CBOD5) 80082	Ammonia Nitrogen (as N) 00610	Total Mercury 71900	Total Mercury 71900
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	7.2 mg/L	2.5 mg/L	(Report) ng/L	(Report) lbs/day
Stat Base	Maximum Daily	Maximum Daily	Maximum Daily	Maximum Daily	Maximum Daily	Maximum Daily
9/1/2019						
9/2/2019						
9/3/2019						
9/4/2019						
9/5/2019						
9/6/2019						
9/7/2019						
9/8/2019						
9/9/2019						
9/10/2019						
9/11/2019	1.00	6	1.1	0.15	0.07	0.000000584224995
9/12/2019	1.00	10	2.9	0.2	*g	*g
9/13/2019	1.27	8	3	0.17	*g	*g
9/14/2019	1.44	8	3.3	0.18	*g	*g
9/15/2019	1.44	12	6.9	0.2	*g	*g
9/16/2019	1.44	18	14	0.2	*g	*g
9/17/2019						
9/18/2019						
9/19/2019	1.44	12	8.8	0.2	*g	*g
9/20/2019	1.44	9	9	0.2	*g	*g
9/21/2019						
9/22/2019						
9/23/2019						
9/24/2019	1.44	10	9	0.2	*g	*g
9/25/2019	1.44	13	29	0.2	*g	*g
9/26/2019	1.44	9	2.8	0.2	*g	*g
9/27/2019	1.44	11	8	0.2	*g	*g
9/28/2019						
9/29/2019						
9/30/2019						

General Report Comments General Report Comments

No Discharge

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Parameter	Total Mercury - uncorrected 7190a	Total Mercury - field duplicate 7190b	Total Mercury - field blank 7190c	Total Mercury - laboratory method blank 7190d	Total Zinc 01092	Total Zinc 01092
Stage	Mercury QA-Effluent	Mercury QA-Effluent	Mercury QA-Effluent	Mercury QA-Effluent	Final Effluent (1)	Final Effluent (1)
Limit	(Report) ng/L	(Report) ng/L	(Report) ng/L	(Report) ng/L	1120 ug/L	47 lbs/day
Stat Base	Maximum Daily	Maximum Daily	Maximum Daily	Maximum Daily	Maximum Daily	Maximum Daily
9/1/2019						
9/2/2019						
9/3/2019						
9/4/2019						
9/5/2019						
9/6/2019						
9/7/2019						
9/8/2019						
9/9/2019						
9/10/2019						
9/11/2019	0.5	0.14	0.50	0.50	50	0
9/12/2019	*g	*g	*g	*g	*g	*g
9/13/2019	*g	*g	*g	*g	*g	*g
9/14/2019	*g	*g	*g	*g	*g	*g
9/15/2019	*g	*g	*g	*g	*g	*g
9/16/2019	*g	*g	*g	*g	*g	*g
9/17/2019						
9/18/2019						
9/19/2019	*g	*g	*g	*g	*g	*g
9/20/2019	*g	*g	*g	*g	*g	*g
9/21/2019						
9/22/2019						
9/23/2019						
9/24/2019	*g	*g	*g	*g	*g	*g
9/25/2019	*g	*g	*g	*g	*g	*g
9/26/2019	*g	*g	*g	*g	*g	*g
9/27/2019	*g	*g	*g	*g	*g	*g
9/28/2019						
9/29/2019						
9/30/2019						

General Report Comments General Report Comments

No Discharge

Show Columns: 4 17

First () Previous () 1 () 2 () 3 () Next () Last ()

Parameter	Outfall Observation 84130	pH 00400	pH 00400	Dissolved Oxygen 00300	Turbidity 00070
Stage	Final Effluent (1)	Final Effluent (1)	Final Effluent (1)	Final Effluent (1)	Final Effluent (1)
Limit	(Report) yes/no	6.5 SU	9.0 SU	6.0 mg/L	160 NTU
Stat Base	Yes/No	Minimum Daily	Maximum Daily	Minimum Daily	Maximum Daily
9/1/2019					
9/2/2019					
9/3/2019					
9/4/2019					
9/5/2019					
9/6/2019					
9/7/2019					
9/8/2019					
9/9/2019					
9/10/2019					
9/11/2019	Yes	7.7	7.7	7.9	*g
9/12/2019	Yes	7.9	7.9	8.1	*g
9/13/2019	Yes	7.9	7.9	8.6	*g
9/14/2019	Yes	8	8	8.9	*g
9/15/2019	yes	8.2	8.2	8.5	*g
9/16/2019	yes	8.5	8.5	8.8	*g
9/17/2019					
9/18/2019					
9/19/2019	yes	8.8	8.8	8.6	*g
9/20/2019	yes	9	9	9.9	*g
9/21/2019					
9/22/2019					
9/23/2019					
9/24/2019	yes	8.3	8.3	9.1	*g
9/25/2019	yes	7.9	7.9	9.3	*g
9/26/2019	yes	7.9	7.9	9.4	*g
9/27/2019	yes	7.8	7.8	9.2	*g
9/28/2019					
9/29/2019					
9/30/2019					

General Report Comments General Report Comments

☐ No Discharge

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq	Sample Type
Flow 50050 Final Effluent (1)	Sample Measurement	0.0989	0.0989	MGD	****	****	****	****	Weekly	Report Total Daily Flow
	Permit Requirement	(Report) Maximum Monthly Average	(Report) Maximum Daily		****	****	****		Weekly	Report Total Daily Flow
Total Suspended Solids 00530 Final Effluent (1)	Sample Measurement	****	****	****	****	9	9	mg/L	See Permit Requirements	3-Portion Composite
	Permit Requirement	****	****		****	35 Maximum Monthly Average	70 Maximum Daily		See Permit Requirements	3-Portion Composite
Outfall Observation 84130 Final Effluent (1)	Sample Measurement	Yes	****	yes/no	****	****	****	****	Weekly	Visual
	Permit Requirement	(Report) Yes/No	****		****	****	****		Weekly	Visual
pH 00400 Final Effluent (1)	Sample Measurement	****	****	****	7.7	****	7.7	SU	Weekly	Grab
	Permit Requirement	****	****		6.5 Minimum Daily	****	9.0 Maximum Daily		Weekly	Grab
Turbidity 00070 Final Effluent (1)	Sample Measurement	****	****	****	****	*G	*G	NTU	See Permit Requirements	Grab
	Permit Requirement	****	****		****	80 Maximum Monthly Average	160 Maximum Daily		See Permit Requirements	Grab

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No Discharge

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Parameter	Flow 50050	Total Suspended Solids 00530	Outfall Observation 84130	pH 00400	pH 00400	Turbidity 00070
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	(Report) yes/no	6.5 SU	9.0 SU	160 NTU
Stat Base	Maximum Daily	Maximum Daily	Yes/No	Minimum Daily	Maximum Daily	Maximum Daily
10/1/2019						
10/2/2019	0.0989	9	Yes	7.7	7.7	*G
10/3/2019						
10/4/2019						
10/5/2019						
10/6/2019						
10/7/2019						
10/8/2019						
10/9/2019						
10/10/2019						
10/11/2019						
10/12/2019						
10/13/2019						
10/14/2019						
10/15/2019						
10/16/2019						
10/17/2019						
10/18/2019						
10/19/2019						
10/20/2019						

Parameter	Flow 50050	Total Suspended Solids 00530	Outfall Observation 84130	pH 00400	pH 00400	Turbidity 00070
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	(Report) yes/no	6.5 SU	9.0 SU	160 NTU
Stat Base	Maximum Daily	Maximum Daily	Yes/No	Minimum Daily	Maximum Daily	Maximum Daily
10/21/2019						
10/22/2019						
10/23/2019						
10/24/2019						
10/25/2019						
10/26/2019						
10/27/2019						
10/28/2019						
10/29/2019						
10/30/2019						
10/31/2019						

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☐ No Discharge

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq	Sample Type
Flow 50050 Final Effluent (1)	Sample Measurement	1.26	1.44	MGD	****	****	****	****	Daily	Report Total Daily Flow
	Permit Requirement	(Report) Maximum Monthly Average	(Report) Maximum Daily		****	****	****		Daily	Report Total Daily Flow
Total Suspended Solids 00530 Final Effluent (1)	Sample Measurement	****	****	****	****	15.66	17	mg/L	See Permit Requirements	3-Portion Composite
	Permit Requirement	****	****		****	35 Maximum Monthly Average	70 Maximum Daily		See Permit Requirements	3-Portion Composite
Carbonaceous Biochemical Oxygen Demand (CBOD5) 80082 Final Effluent (1)	Sample Measurement	****	****	****	****	****	11	mg/L	Daily	Grab
	Permit Requirement	****	****		****	****	13 Maximum Daily		Daily	Grab
Ammonia Nitrogen (as N) 00610 Final Effluent (1)	Sample Measurement	****	****	****	****	****	0.14	mg/L	Daily	Grab
	Permit Requirement	****	****		****	****	5.8 Maximum Daily		Daily	Grab
Total Mercury 71900 Final Effluent (1)	Sample Measurement	*G	*G	lbs/day	****	*G	*G	ng/L	Quarterly	Calculation
	Permit Requirement	(Report) Maximum Monthly Average	(Report) Maximum Daily		****	(Report) Maximum Monthly Average	(Report) Maximum Daily		Quarterly	Calculation
Total Zinc 01092 Final Effluent (1)	Sample Measurement	****	0.577	lbs/day	****	****	48	ug/L	Monthly	Grab
	Permit Requirement	****	47 Maximum Daily		****	****	1120 Maximum Daily		Monthly	Grab
Outfall Observation 84130 Final Effluent (1)	Sample Measurement	Yes	****	yes/no	****	****	****	****	Daily	Visual
	Permit Requirement	(Report) Yes/No	****		****	****	****		Daily	Visual
pH 00400 Final Effluent (1)	Sample Measurement	****	****	****	7.7	****	7.9	SU	Daily	Grab

Parameter	Quantity or Loading			Units	Quality or Concentration			Units	Sample Freq	Sample Type
Dissolved Oxygen 00300 Final Effluent (1)	Permit Requirement	****	****	****	6.5 Minimum Daily	****	9.0 Maximum Daily	mg/L	Daily	Grab
	Sample Measurement	****	****		8.70	****	****		Daily	Grab
	Permit Requirement	****	****		6.0 Minimum Daily	****	****		Daily	Grab
Turbidity 00070 Final Effluent (1)	Sample Measurement	****	****	****	****	*G	*G	NTU	See Permit Requirements	Grab
	Permit Requirement	****	****		****	80 Maximum Monthly Average	160 Maximum Daily		See Permit Requirements	Grab

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No Discharge

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Parameter	Flow 50050	Total Suspended Solids 00530	Carbonaceous Biochemical Oxygen Demand (CBOD5) 80082	Ammonia Nitrogen (as N) 00610	Total Mercury 71900	Total Mercury 71900
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	13 mg/L	5.8 mg/L	(Report) ng/L	(Report) lbs/day
Stat Base	Maximum Daily	Maximum Daily	Maximum Daily	Maximum Daily	Maximum Daily	Maximum Daily
10/1/2019	1.44	16	11	0.2	*G	*G
10/2/2019	1.44	17	10	0.11	*G	*G
10/3/2019	0.9	14	9.7	0.14	*G	*G
10/4/2019						
10/5/2019						
10/6/2019						
10/7/2019						
10/8/2019						
10/9/2019						
10/10/2019						
10/11/2019						
10/12/2019						
10/13/2019						
10/14/2019						
10/15/2019						
10/16/2019						
10/17/2019						
10/18/2019						
10/19/2019						
10/20/2019						
10/21/2019						
10/22/2019						
10/23/2019						
10/24/2019						
10/25/2019						
10/26/2019						
10/27/2019						
10/28/2019						
10/29/2019						
10/30/2019						
10/31/2019						

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Parameter	Total Mercury - uncorrected 7190a	Total Mercury - field duplicate 7190b	Total Mercury - field blank 7190c	Total Mercury - laboratory method blank 7190d	Total Zinc 01092	Total Zinc 01092
Stage	Mercury QA-Effluent	Mercury QA-Effluent	Mercury QA-Effluent	Mercury QA-Effluent	Final Effluent (1)	Final Effluent (1)
Limit	(Report) ng/L	(Report) ng/L	(Report) ng/L	(Report) ng/L	1120 ug/L	47 lbs/day
Stat Base	Maximum Daily	Maximum Daily	Maximum Daily	Maximum Daily	Maximum Daily	Maximum Daily
10/1/2019	*G	*G	*G	*G	*G	*G
10/2/2019	*G	*G	*G	*G	*G	*G
10/3/2019	*G	*G	*G	*G	48	0.577
10/4/2019						
10/5/2019						
10/6/2019						
10/7/2019						
10/8/2019						
10/9/2019						
10/10/2019						
10/11/2019						
10/12/2019						
10/13/2019						
10/14/2019						
10/15/2019						
10/16/2019						
10/17/2019						
10/18/2019						
10/19/2019						
10/20/2019						
10/21/2019						
10/22/2019						
10/23/2019						
10/24/2019						
10/25/2019						
10/26/2019						
10/27/2019						
10/28/2019						
10/29/2019						
10/30/2019						
10/31/2019						

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No Discharge

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Parameter	Outfall Observation 84130	pH 00400	pH 00400	Dissolved Oxygen 00300	Turbidity 00070
Stage	Final Effluent (1)	Final Effluent (1)	Final Effluent (1)	Final Effluent (1)	Final Effluent (1)
Limit	(Report) yes/no	6.5 SU	9.0 SU	6.0 mg/L	160 NTU
Stat Base	Yes/No	Minimum Daily	Maximum Daily	Minimum Daily	Maximum Daily
10/1/2019	Yes	7.7	7.7	8.7	*G
10/2/2019	Yes	7.9	7.9	8.8	*G
10/3/2019	Yes	7.8	7.8	9.4	*G
10/4/2019					
10/5/2019					
10/6/2019					
10/7/2019					
10/8/2019					
10/9/2019					
10/10/2019					
10/11/2019					
10/12/2019					
10/13/2019					
10/14/2019					
10/15/2019					
10/16/2019					
10/17/2019					
10/18/2019					
10/19/2019					
10/20/2019					
10/21/2019					
10/22/2019					
10/23/2019					
10/24/2019					
10/25/2019					
10/26/2019					
10/27/2019					
10/28/2019					
10/29/2019					
10/30/2019					
10/31/2019					

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☐ No Discharge

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq	Sample Type
Flow 50050 Final Effluent (1)	Sample Measurement	0.0235	0.0235	MGD	****	****	****	****	Weekly	Report Total Daily Flow
	Permit Requirement	(Report) Maximum Monthly Average	(Report) Maximum Daily		****	****	****		Weekly	Report Total Daily Flow
Total Suspended Solids 00530 Final Effluent (1)	Sample Measurement	****	****	****	****	3	3	mg/L	See Permit Requirements	3-Portion Composite
	Permit Requirement	****	****		****	35 Maximum Monthly Average	70 Maximum Daily		See Permit Requirements	3-Portion Composite
Outfall Observation 84130 Final Effluent (1)	Sample Measurement	Yes	****	yes/no	****	****	****	****	Weekly	Visual
	Permit Requirement	(Report) Yes/No	****		****	****	****		Weekly	Visual
pH 00400 Final Effluent (1)	Sample Measurement	****	****	****	7.5	****	7.5	SU	Weekly	Grab
	Permit Requirement	****	****		6.5 Minimum Daily	****	9.0 Maximum Daily		Weekly	Grab
Turbidity 00070 Final Effluent (1)	Sample Measurement	****	****	****	****	*g	*g	NTU	See Permit Requirements	Grab
	Permit Requirement	****	****		****	80 Maximum Monthly Average	160 Maximum Daily		See Permit Requirements	Grab

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No Discharge

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Parameter	Flow 50050	Total Suspended Solids 00530	Outfall Observation 84130	pH 00400	pH 00400	Turbidity 00070
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	(Report) yes/no	6.5 SU	9.0 SU	160 NTU
Stat Base	Maximum Daily	Maximum Daily	Yes/No	Minimum Daily	Maximum Daily	Maximum Daily
12/1/2019						
12/2/2019						
12/3/2019	0.0235	3	Yes	7.5	7.5	*g
12/4/2019						
12/5/2019						
12/6/2019						
12/7/2019						
12/8/2019						
12/9/2019						
12/10/2019						
12/11/2019						
12/12/2019						
12/13/2019						
12/14/2019						
12/15/2019						
12/16/2019						
12/17/2019						
12/18/2019						
12/19/2019						
12/20/2019						

Parameter	Flow 50050	Total Suspended Solids 00530	Outfall Observation 84130	pH 00400	pH 00400	Turbidity 00070
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	(Report) yes/no	6.5 SU	9.0 SU	160 NTU
Stat Base	Maximum Daily	Maximum Daily	Yes/No	Minimum Daily	Maximum Daily	Maximum Daily
12/21/2019						
12/22/2019						
12/23/2019						
12/24/2019						
12/25/2019						
12/26/2019						
12/27/2019						
12/28/2019						
12/29/2019						
12/30/2019						
12/31/2019						

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☐ No Discharge

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq	Sample Type
Flow 50050 Final Effluent (1)	Sample Measurement	0.0151	0.023	MGD	****	****	****	****	Weekly	Report Total Daily Flow
	Permit Requirement	(Report) Maximum Monthly Average	(Report) Maximum Daily		****	****	****		Weekly	Report Total Daily Flow
Total Suspended Solids 00530 Final Effluent (1)	Sample Measurement	****	****	****	****	4	4	mg/L	See Permit Requirements	3-Portion Composite
	Permit Requirement	****	****		****	35 Maximum Monthly Average	70 Maximum Daily		See Permit Requirements	3-Portion Composite
Outfall Observation 84130 Final Effluent (1)	Sample Measurement	Yes	****	yes/no	****	****	****	****	Weekly	Visual
	Permit Requirement	(Report) Yes/No	****		****	****	****		Weekly	Visual
pH 00400 Final Effluent (1)	Sample Measurement	****	****	****	7.4	****	7.4	SU	Weekly	Grab
	Permit Requirement	****	****		6.5 Minimum Daily	****	9.0 Maximum Daily		Weekly	Grab
Turbidity 00070 Final Effluent (1)	Sample Measurement	****	****	****	****	*G	*G	NTU	See Permit Requirements	Grab
	Permit Requirement	****	****		****	80 Maximum Monthly Average	160 Maximum Daily		See Permit Requirements	Grab

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No Discharge

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Parameter	Flow 50050	Total Suspended Solids 00530	Outfall Observation 84130	pH 00400	pH 00400	Turbidity 00070
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	(Report) yes/no	6.5 SU	9.0 SU	160 NTU
Stat Base	Maximum Daily	Maximum Daily	Yes/No	Minimum Daily	Maximum Daily	Maximum Daily
1/1/2020						
1/2/2020						
1/3/2020						
1/4/2020						
1/5/2020						
1/6/2020						
1/7/2020						
1/8/2020						
1/9/2020						
1/10/2020						
1/11/2020						
1/12/2020						
1/13/2020						
1/14/2020	0.007	4	Yes	7.4	7.4	*G
1/15/2020						
1/16/2020						
1/17/2020						
1/18/2020						
1/19/2020						
1/20/2020						

Parameter	Flow 50050	Total Suspended Solids 00530	Outfall Observation 84130	pH 00400	pH 00400	Turbidity 00070
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	(Report) yes/no	6.5 SU	9.0 SU	160 NTU
Stat Base	Maximum Daily	Maximum Daily	Yes/No	Minimum Daily	Maximum Daily	Maximum Daily
1/21/2020						
1/22/2020						
1/23/2020						
1/24/2020						
1/25/2020						
1/26/2020						
1/27/2020						
1/28/2020	0.023	4	Yes	7.4	7.4	*G
1/29/2020						
1/30/2020						
1/31/2020						

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