



July 12, 2019

Reference No. 012607

Distributed via E mail

Mr. Greg Rudloff
U.S. Environmental Protection Agency, Region 5
Land, Chemicals, and Redevelopment Division
77 West Jackson Blvd., LR-16J
Chicago, Illinois 60604 3590

Dear Mr. Rudloff:

**Re: 1st 2019 Semi Annual Progress Report
Performance Based Administrative Order on Consent
Docket Number RCRA 05 2011 0025
13000 Eckles Road Site, Livonia, Michigan
USEPA ID No. MID 005 356 621**

In accordance with the Performance Based Administrative Order on Consent between the U.S. Environmental Protection Agency Region 5 (USEPA) and Revitalizing Auto Communities Environmental Response Trust (RACER), please find the attached progress report for the 1st half of 2019 (January 1, 2019 through June 30, 2019).

Please contact Grant Trigger or Jeff Crum (regarding AOI 31 vapor intrusion pathway monitoring matters), or Dave Favero or myself (regarding system operation and Area 1 groundwater matters) if you would like to discuss further. Thank you.

Sincerely,

GHD

A handwritten signature in blue ink, appearing to read "CJ Meincke", is written over a horizontal line.

Christopher J. Meincke, P.E.

CJM/29/ds/Det.

Attachment A: 1st Semi Annual 2019 Progress Report

cc: Grant Trigger, RACER
Dave Favero, RACER
Richard Conforti/Jacob Runge, MDEQ
Tessy Jose, GLWA
Jeff Crum, Hamp, Mathews & Associates
Livonia Civic Center Library



ATTACHMENT A
1st SEMI-ANNUAL 2019 PROGRESS REPORT
PERFORMANCE-BASED ADMINISTRATIVE ORDER ON CONSENT
13000 ECKLES ROAD SITE, LIVONIA, MICHIGAN
January 1, 2019 to June 30, 2019

1. Description of Work Completed

- Continued limited operation of the Area 1 French Drain Collection Trench and Groundwater Treatment system (GWTP) on an as-needed basis. Groundwater elevation measurements were collected periodically to evaluate potential standing water conditions. The Groundwater Treatment System was shut down from January 1, 2019 until it was restarted on April 22, 2019 and operated until June 14, 2019. The Great Lakes Water Authority (GLWA) has been updated on operations and required effluent samples were collected and reported to GLWA. During the first half of 2019 the system collected and discharged 2,259,057 gallons of groundwater. Monthly discharge totals are presented in Table 1.
- Submitted the 2nd Semi-Annual 2018 Progress Report dated January 21, 2019 to USEPA.
- Continued Area 1 PFAS Laboratory Treatability Study.
- Conducted a meeting on February 26, 2019 with USEPA to discuss Corrective Action O&M activities, Area 1 GWTP and Remedial Alternative, Per- and Polyfluoroalkyl Substances (PFAS), Sewer IM activities, and AOI 31 Vapor Intrusion (VI) Pathway evaluation status. An additional follow-up meeting was conducted on April 11, 2019 to update USEPA on Area 1 PFAS laboratory treatability study results, GW Model updates, alternatives evaluation, and proposed characterization activities, and AOI 31 Proposed In Situ Chemical Oxidation Remediation Activities.
- Submittal of Best Management Program (BMP) Plan and Special Discharge Permit Renewal Application to GLWA on March 17, 2019. Participated in a meeting with GLWA on April 23, 2019 regarding BMP Plan and GLWA Special Discharge Permit Renewal Application. Submitted a revised BMP Plan on May 9, 2019.
- Recorded a Declaration of Restrictive Covenant for current RACER-owned property at the Eckles Road Site (approximately 20 acres with the address of 12950 Eckles Road) with the Wayne County Register of Deeds on April 9, 2019.
- Submitted a Proposed Scope of Work – Area 1 PFAS Characterization dated April 24, 2019 to USEPA for review and received comments from USEPA on May 23, 2019.
- Submitted a Quality Assurance Project Plan – Addendum – PFAS Characterization, dated May 15, 2019, to USEPA for review pursuant to a request from USEPA.



- Received a Renewal of GLWA Special Discharge Permit No. SD6-94508 dated June 3, 2019, effective through January 31, 2020.
- Conducted a vapor mitigation system performance evaluation at 37750 Grantland Street (Home 8) on June 24, 2019.
- Submitted a Work Plan for In Situ Chemical Oxidation Remediation of Trichloroethene Groundwater Plume, dated June 13, 2019 to USEPA for review.
- Installed six shallow monitoring wells as part of the Proposed Scope of Work – Area 1 PFAS Characterization activities on June 19 -21, including collection of soil samples for analysis of PFAS. Split samples were sent to USEPA for the analysis of PFAS.
- Submitted a Quality Assurance Project Plan for RCRA Corrective Action Operations, Maintenance and Monitoring (OMM) Plan activities dated June 27, 2019 to USEPA for review pursuant to a request from USEPA.

2. Data Collected

- Area 1 GWTP Effluent samples for GLWA Discharge Parameters and PFAS will be submitted under separate cover.

3. Problems Encountered

- None.

4. Estimated Percent Complete and Information Summary for Selected Activities

- O&M of the Groundwater Pump & Treat System (GWTP, Barrier Wall, Cover) 37%
Continued operation of the Area 1 French Drain Collection Trench and Groundwater Treatment system. Submitted appropriate discharge reports as per the Special Discharge Permit. (Percent complete estimated as 10 years complete of 27 years estimated in the May 2010 RCES.)
- Long-Term Groundwater Monitoring On-going 75%
Long-Term Groundwater Monitoring Plan proposed 5 years of monitoring to verify continued stability/reduction in off-Site/boundary concentrations (anticipated completion 2006 through 2010). Sampling activities are currently planned to continue pending USEPA approval to cease monitoring.
- Maintenance of the AOI 39 Dust Control Plan 100%



- Restrictive Covenants 100%
Prepared a revised Declaration of Restrictive Covenant (DRC) and Termination of the 2007 DRC and submitted to USEPA on June 25, 2015. Recorded final DRC and 2007 DRC Termination on August 26, 2015. A DRC for currently owned RACER property on April 9, 2019.
- Vapor Intrusion Investigation 100%
Vapor Intrusion Investigation has been completed and subsequent mitigation has been implemented at one residence, and a VI pathway sampling plan downgradient of previously investigated homes has been approved and is being implemented. See AOI 31 below for additional activities.
- Installation of Vapor Mitigation System (Homes 7 & 8: 37780 and 37750 Grantland St.) 100%
Installation completed and system operational at Home 7 since September 2012.
Installation completed January 2018 and system operational at Home 8, 37750 Grantland St.
- O&M and Performance Monitoring of Vapor Mitigation System On-going
System performance monitoring is being implemented at pre-scheduled time periods, though some delay in the schedule occurred due to home foreclosure and achieving contact with new homeowners. Latest system performance monitoring completed November 2018 (Home 7) and June 2019 (Home 8).
- Area 1 Pilot Tests - Alternative Chemicals & Target In-Situ Treatment Injection 100%
Objective was to design, implement, and evaluate a pilot test to use alternative chemicals in the wastewater treatment process that could reduce treatment system operating time and/or operating costs. Also, design and implement an in-situ stabilization treatment in Area 1 that could also reduce treatment system operating time and long-term monitoring duration.

The Area 1 field pilot test was conducted in November and December 2010. Based on an evaluation of the pilot test results, additional pilot study injection and monitoring activities were recommended to determine if full-scale on-site implementation would significantly reduce dissolved concentrations of chromium and nickel and allow for the groundwater treatment plant activities to be reduced or eliminated.

The groundwater treatment plant optimization activities have not been conducted due to health and safety concerns associated with handling, storing, and mixing the proposed replacement chemicals.

Additional cost and remedial alternative evaluations were performed in 2013. Additional Area 1 Characterization activities have been implemented. A laboratory treatability study was performed using site groundwater to evaluate the effectiveness of utilizing a permeable reactive barrier wall (PRB) with zero valent iron (ZVI) to treat Area 1 groundwater if the



existing groundwater collection and treatment system operations are ceased. Groundwater modeling activities were also performed to evaluate the optimal location and number of PRBs and the effects on groundwater flow inside and outside of the Area 1 Barrier Wall.

An additional field pilot test injection was completed in November 2013 and monitoring activities were completed through October 2014 with an additional Pilot Injections in the northern portion of the Area 1 chromium and nickel-impacted groundwater plume proposed in the 2015 Annual EA Budget Request.

Additional expanded pilot study injections were completed in May through June of 2015 including the injection of sodium sulfide, sodium dithionite, or a combination of the two in 83 injections points in the northern portion of the Area 1 chromium and nickel-impacted groundwater plume. Groundwater monitoring concluded in December 2015. An Area 1 ISCR Pilot Study Summary Report was submitted in January 2016.

- Groundwater Treatment System Decommissioning & Removal 0%

Anticipated to be completed in 2037 per May 2010 RCES but could be completed in 2020 if proposed Permeable Reactive Gate is implemented and an acceptable remedy for PFAS is identified.

- Completion Report & Well Abandonment 0%

Anticipated to be completed in 2037 per May 2010 RCES.

- AOI 31 50%

A Long-Term VI Pathway Monitoring Work Plan was approved which included a minimum two years of semi-annual/annual soil vapor and groundwater sample collection to evaluate groundwater plume stability, downgradient extent of the groundwater and soil vapor TCE plume, and spatial and temporal variability in TCE soil vapor concentrations. The first semi-annual event was conducted in June 2016. Based on the results of the first event, additional groundwater delineation activities (Phase I Geoprobe®) were completed during the 1st Quarter of 2017 to further delineate TCE and TCA groundwater plumes and concentrations to determine if modifications are needed to the VI pathway monitoring plan, or if response actions are needed to mitigate potential unacceptable VI risk. Additional permanent monitoring wells and soil vapor probes were installed in June 2017 and were sampled in July 2017. Home 1 and Home 8 subslab soil vapor probes were resampled in December 2017. Soil vapor and Vapor Pin samples were collected November/December 2018. Preparation of a Long-Term VI pathway risk summary report of the VI sampling results from 2016 through 2018 will continue during the first half of 2019.

Groundwater and soil diagnostic sample and hydraulic data were collected June and October 2018 to assist design of an In-Situ Groundwater Remediation of the TCE plume to lessen vapor intrusion pathway risk assessment activities in the future at homes downgradient of the



current plume's extent. A Draft Work Plan for In-Situ Chemical Oxidation Remediation of TCE at AOI 31 dated June 13, 2019 was submitted to USEPA.

- Area 1 Remedial Implementation 50%

A request to perform Targeted Area 1 ISCR Injections was submitted to USEPA in April 2016 and approved by USEPA on May 18, 2016. Targeted injections were implemented in August 2016. An Area 1 Full Scale ISCR Work Plan was submitted to USEPA in April 2016 and approved by USEPA on May 18, 2016. Implementation of the work plan activities began September 2016. ISCR injections were completed in November 2016. Performance groundwater monitoring following the ISCR injections was completed in January 2017 and April/May 2017.

An Area 1 Permeable Reactive Gate Evaluation report was submitted to USEPA in September 2017 proposing to install a permeable reactive gate (PRG) along a portion of the eastern alignment of the Area 1 Barrier Wall, to allow groundwater to exit the area surrounded by the barrier wall while being passively treated. An Area 1 Permeable Reactive Gate Work Plan was submitted to USEPA in April 2018. Comments received from USEPA were addressed and the presence of PFAS-impacted groundwater is currently being evaluated.

Follow-up targeted injections were conducted in December 2017 along the south and southern eastern alignments of the Area 1 Barrier Wall (in the vicinity of French drain collection trench and proposed PRG location, where injections had not previously been conducted. Follow-up groundwater monitoring activities were completed in January 2018 and May 2018.

- PFAS Site Characterization 75%

Initial groundwater samples were collected during 2017/2018 to evaluate the potential presence of PFAS-impacted groundwater at the Site. PFAS has been detected in groundwater samples within the former Plating Area and GWTP influent/effluent samples at concentrations greater than the USEPA's 2016 Lifetime Health Advisory of 70 ng/L for PFOA and PFOS. Additional characterization has been proposed in 2019 to delineate horizontal and vertical extents of PFAS-impacted groundwater within Area 1, and how it may impact the proposed installation of the Area 1 PRG. The characterization activities are in progress.

- PFAS Remedy/Interim Measure Evaluation 50%

Potential remedial alternatives to address PFAS-impacted groundwater within Area 1 have been reviewed, summarized and continue to be evaluated.

- PFAS Pilot Tests 80%

A USEPA Proposed Scope of Work for a laboratory treatability study has been initiated to evaluate several media to determine their effectiveness treating PFAS-impacted groundwater.

- PFAS Remedy/Interim Measure Design 0%



Anticipated to be completed following the conclusion of the Laboratory Treatability Study, if applicable.

- PFAS Remedy/Interim Measure Implementation 0%

Anticipated to be completed following the conclusion of the PFAS Remedy/Interim Measure Design task, if applicable.

5. Summary of Contacts with Interested Parties

- Correspondence with City of Livonia regarding GLWA Special Discharge Permit Renewal Letter of Acceptance
- Coordination with redevelopment activities continues as necessary.
- Residents are updated on a one-on-one basis to maintain privacy of VI pathway risk evaluations at their homes.

6. Changes in Personnel

- None

7. Projected Work for Next Reporting Period (July 2019 through December 2019)

- Conduct a semi-annual soil vapor and groundwater sampling event according to USEPA approved Long-Term Vapor Intrusion Pathway Monitoring Work Plan or as otherwise approved by USEPA.
- Prepare a 2016-2018 summary report of the Long-Term Vapor Intrusion Pathway investigations for submittal to USEPA.
- Continue monitoring groundwater elevations and operation of the Area 1 French Drain Collection Trench and Groundwater Treatment system, as necessary.
- Collect groundwater samples from select Area 1 monitoring wells to evaluate the presence of PFAS and metals, and evaluate impacts of PFAS concentrations on the French Drain Collection Trench, Groundwater Treatment system, and proposed Permeable Reactive Gate.
- Complete Area 1 PFAS characterization activities, evaluate data, and submit a report to USEPA, EGLE, and GLWA (August 30, 2019).
- Complete Area 1 PFAS Laboratory Treatability Study and submit a report to USEPA, EGLE, and GLWA (September 30, 2019)



- Prepare a Proposed Comprehensive Remedy for Area 1 and submit a report to USEPA, EGLE, and GLWA (December 20, 2019)
- Meet individually with AOI 31 off-site residents to update them on the VI pathway risk conditions and basis for performing a Pilot Study of In-Situ Groundwater Remediation of the TCE plume.
- Continue to work toward installation and operation of ISCO Remediation of the TCE plume to mitigate future VI pathway monitoring for off-site AOI 31 receptors.
- Conduct a vapor mitigation system performance evaluation at Home 7.
- Continue support of redevelopment activities.
- Prepare summaries of meetings, data reviews, or conference calls with USEPA, as appropriate.
- Prepare the 1st 2019 Semi-Annual Progress Report.

Attachments: Table 1 – Summary of Monthly Groundwater Treatment Plant Discharge Volume

**SUMMARY OF MONTHLY GROUNDWATER TREATMENT PLANT DISCHARGE
AREA 1 - FORMER PLATING AREA
ECKLES ROAD SITE
LIVONIA, MICHIGAN**

Monthly GWTP Discharge Volume (Gallons)	
Month	
January 2019	-
February 2019	-
March 2019	-
April 2019	411,331
May 2019	1,349,190
June 2019	498,536
Total January 2019 to June 2019 Discharge	2,259,057