



July 15, 2015

Reference No. 012607

Distributed via E mail

Mr. Greg Rudloff
U.S. Environmental Protection Agency, Region 5
Land and Chemicals Division
77 West Jackson Blvd., LU 9J
Chicago, Illinois 60604 3590

Dear Mr. Rudloff:

**Re: 1st Semi Annual 2015 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 2015 (January 1, 2015 through June 30, 2015).

Please contact Grant Trigger or Jeff Crum (regarding soil vapor related matters), or Dave Favero or myself (regarding system operation and groundwater matters) if you would like to discuss further. Thank you.

Yours truly,

GHD

A handwritten signature in blue ink, appearing to read "Chris Meincke", with a stylized flourish at the end.

Christopher J. Meincke, P.E.

CJM/KTA/15/ds/Det.

Attachment A: 1st Semi Annual 2015 Progress Report

cc: Christina Rose Bush, MDCH
Grant Trigger, RACER
Dave Favero, RACER
Richard Conforti, MDEQ
Jeff Crum, Hamp, Mathews & Associates
Livonia Civic Center Library

ATTACHMENT A
1st SEMI-ANNUAL 2015 PROGRESS REPORT
PERFORMANCE-BASED ADMINISTRATIVE ORDER ON CONSENT
13000 ECKLES ROAD SITE, LIVONIA, MICHIGAN
JANUARY 1, 2015 TO JUNE 30, 2015

1. Description of Work Completed

- Continued operation of the Area 1 French Drain Collection Trench and Groundwater Treatment system.
- Submitted the 2nd Semi-Annual 2014 Progress Report dated January 15, 2015 to USEPA.
- Submitted a revised draft Area 1 Expanded Pilot Study Work Plan dated February 27, 2015, for MDEQ and USEPA review and received MDEQ approval on March 16, 2015 and USEPA approval on April 22, 2015.
- Performed groundwater elevation and LNAPL thickness measurement activities at AOI 21 monitoring wells on March 17, 2015 and June 22, 2015.
- Submitted a Special Permit Renewal Application for Special Discharge Permit SD6-94508 dated April 30, 2015 to the City of Detroit Water and Sewerage Department and received approval of the renewal on June 10, 2015.
- Installed 23 monitoring wells within Area 1 on May 6-12, 2015 to be utilized during the pre and post-injection monitoring events.
- Collected pre-injection groundwater samples from Area 1 monitoring wells for the Expanded Pilot Study on May 12-14, 2015.
- Completed the Area 1 Expanded Pilot Study injections on May 18 through June 29, 2015. A total of 83 injections points were installed in general accordance with the Work Plan.
- Collected 1-week and 3-week post-injection groundwater samples on May 27-29, June 9, June 18-19, 2015 from the Area 1 monitoring wells following injection activities.
- Completed a meeting/conference call with USEPA to discuss Corrective Action O&M activities, Area 1 In-Situ Pilot Study, and redevelopment status of the Site on April 23, 2015.
- Continued evaluation of potential cost savings and remedial alternatives to decrease the long-term OM&M costs associated with the Area 1 Groundwater Collection and Treatment System.
- Continued operation and maintenance of vapor mitigation system at 37780 Grantland Avenue (Home 7).

2. Data Collected

- Groundwater elevation and LNAPL thickness measurements from AOI 21 monitoring wells are included on Figure 1.

- Monitoring well and injection locations associated with the Area 1 Expanded Pilot Study Injections are shown on Figure 2.

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) 15%
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 4 years complete of 27 years estimated in the May 2010 RCES.)
- Long-Term Groundwater Monitoring On-going
Long-Term Groundwater Monitoring Plan scheduled to be complete after 5 years of continued stability/reduction in off-Site/boundary concentrations (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 Agreement for the existing 2006 DRC and submitted to USEPA on June 25 2015.
- Vapor Intrusion Investigation 75%
Undergoing RACER review and awaiting further clarification of USEPA's vapor intrusion approach to address potential short-term effects from trichloroethylene (TCE) vapor intrusion.
- Installation of Vapor Mitigation System 100%
Installation completed and system updated September 2012.
- Operation, Maintenance 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 2013.
- Pilot Tests - Alternative Chemicals & Target In-Situ Treatment Injection 90%
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 Treatment System Decommissioning & Removal 0%
Anticipated to be completed in 2037 per May 2010 RCES.
- Completion Report & Well Abandonment 0%
Anticipated to be completed in 2037 per May 2010 RCES.

5. Summary of Contacts with Interested Parties

- A purchase agreement has been signed with a prospective purchaser and due diligence activities have been ongoing.

6. Changes in Personnel

- None

7. Projected Work for Next Reporting Period (July 2015 through December 2015)

- Coordination with USEPA and MDCH with the goal of removing subslab and near-slab soil gas ports from residences.
- Finalize the off-site residential vapor intrusion investigation and results report for submittal to USEPA.
- Evaluate and develop a near and long-term vapor intrusion monitoring plan to determine if properties downgradient from the homes investigated need evaluation of the vapor intrusion pathway.
- Conduct a vapor mitigation performance evaluation at Home 7, and submit a summary of the performance results and any system modifications, if needed, to USEPA.
- Continued operation of the Area 1 French Drain Collection Trench and Groundwater Treatment system.
- Perform groundwater sampling activities in accordance with the revised Groundwater Monitoring Plan.
- Complete quarterly groundwater elevation and LNAPL thickness measurements from AOI 21 monitoring wells.
- Continue Area 1 Expanded Pilot Study post-injection monitoring activities.
- Continue evaluation of potential cost savings and remedial alternatives to decrease the long-term OM&M costs associated with the Area 1 Groundwater Collection and Treatment System.
- Update the Groundwater Flow and Transport Model and use to evaluate identified alternative treatment and flow options.
- Continued support of redevelopment activities.
- Prepare summaries of meetings, data reviews, or conference calls with USEPA, as appropriate.
- Prepare the 2nd 2015 Semi-Annual Progress Report.

Attachments: Figure 1 – AOI 21 LNAPL Thickness Measurements
Figure 2 – Area 1 Monitoring Well and Injection Locations



