

Ms. Christine Matlock  
Hazardous Waste Section  
Michigan Department of Environmental Quality  
525 West Allegan Street  
Constitution Hall, 1S  
Lansing, Michigan 48909

Subject:

Quarterly Progress Report – 4<sup>th</sup> Quarter 2018  
RACER Lansing Plants 2, 3, and 6 Industrial Land  
USEPA I.D.s MID980700827 and MID005356928  
2801 West Saginaw St., 2800 West Saginaw St., and 401 Verlinden St.  
Lansing, Michigan

Dear Ms. Matlock:

Arcadis of Michigan, LLC (Arcadis) is submitting this Quarterly Progress Report on behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust for Lansing Plants 2, 3, and 6, Industrial Land, in Lansing, Michigan (the Sites). Please note that to the extent possible quarterly progress report submittals have been in the form of project update presentations that RACER has shared with the Michigan Department of Environment Quality (MDEQ) during update meetings. However, no such meeting was held near the end of the fourth quarter 2018 so this written progress report has been prepared. Future progress reports will be in the form of project update presentations whenever possible.

This Quarterly Progress Report covers the period of October 1, 2018 through December 31, 2018. The following briefly summarizes the work performed and project schedule for various activities anticipated to be completed in the first quarter of 2019.

### Work Performed

- The biosparge pre-design study was ongoing from October 1 through December 31, 2018. During this period routine operations, maintenance and monitoring (OMM) and performance monitoring was completed. Routine performance monitoring and OMM included:
  - Routine OMM on the system was completed on the same schedule as performance monitoring. Routine OMM included general equipment inspections; a check of propane levels; inspection of the desiccant dryer; inspection of the in-line filters and collection of (propane) Lower Explosive Level (LEL) readings at select wells;
  - Nutrient injections were completed on October 19, 2018;
  - An update on the biosparge pilot summary was submitted to MDEQ during October 2018;

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Environment

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Our ref:

B0064479.2018

- For Performance Monitoring groundwater samples were collected and analyzed for 1,4-dioxane and propane during the 4Q groundwater sampling event from December 3 through December 12, 2018;
- Between October 2 and October 31, 2018, the Plant 3 Storm Sewer Modifications Workplan was completed. This work included capping 150 catch basin and manhole structures, installation of two concrete bulkheads within the storm sewer collection network and installation of two concrete monoliths within the plant outfall storm sewer lines.
- The Plant 2 Light Non-Aqueous Phase Liquid (LNAPL) per- and polyfluoroalkyl substances (PFAS) Sampling Workplan was submitted to MDEQ on October 5, 2018. MDEQ approved the Workplan on November 20, 2018.
- Third Quarter Progress Report was submitted to MDEQ in October 15, 2018.
- Between October 22 and October 24, 2018 seven carbon traps and five temperature loggers were installed as part of the natural source zone depletion (NSZD) investigation at Plant 2.
- RACER Lansing 2018 Semi-Annual Groundwater Sampling Report was submitted to MDEQ on October 23, 2018.
- RACER Lansing Plant 3 PFAS Summary Report was submitted to MDEQ on November 1, 2018.
- The Plant 6 PFAS Delineation Work Plan was approved by MDEQ on October 15, 2018. Implementation of the Work Plan was completed between November 19 and November 30, 2018. This work included completion of eight soil borings off-site and 13 soil borings on-site. From these 21 soil borings a total of 17 soil samples and 40 groundwater samples were collected and submitted for PFAS analysis. In addition, samples collected from six storm sewer catch basin structures were submitted for PFAS.
- Between December 3 and December 12, 2018, the fourth quarter groundwater monitoring event was completed. This event included:
  - Gauging of 159 groundwater monitoring wells;
  - Gauging of 24 LNAPL monitoring wells;
  - Sampling of 91 groundwater monitoring wells. Of these a total of 45 monitoring wells were analyzed for volatile organic compounds (VOCs); 67 were analyzed for 1,4-dioxane, 11 were analyzed for PFAS and 13 were analyzed for select metals;
  - Sampled five storm sewer outfall structures for PFAS.
- Between December 3 and December 19, 2018, a total of five off-site monitoring wells and 11 on site monitoring wells were installed as part of the Plant 3 Off Site PFAS Delineation Workplan that was approved by MDEQ in May 2018.

**Work in Progress and Near-Term Milestones Anticipated During the 1<sup>st</sup> Quarter 2019**

Activity	Schedule
<b>Continue with the Biosparge pre-design pilot study</b>	January-March 2019
<b>Continue with NSZD data collection and data summary</b>	January-March 2019
<b>Submit Notice of Migration for Plant 6 PFAS impacts within the roadway to City of Lansing and MDEQ</b>	January 2019
<b>Submit Plant 3 Storm Sewer Modifications Construction Completion report</b>	February 2019
<b>Evaluate installation of deep bedrock monitoring wells at Plant 2</b>	February/March 2019
<b>Submit Sampling Plan Related to the Plants 2 and 3 Soils Corrective Measures Work</b>	March 2019
<b>Submit the Plants 2 &amp; 6 PFAS Summary Report</b>	March 2019
<b>Submit the 2018 Annual Groundwater Monitoring Summary Report</b>	March 2019

If you have any questions or comments regarding the information presented above, please contact Randy Christensen at [Randy.Christensen@Arcadis.com](mailto:Randy.Christensen@Arcadis.com) or at 517.819.8800.

Sincerely,  
Arcadis of Michigan, LLC



Randy Christensen  
Project Manager

- Copies:
- Joe Rogers (MDEQ)
  - John McCabe (MDEQ)
  - Al Taylor (MDEQ)
  - Randy Seida (West Side Water)
  - Alec Melvetis (City of Lansing)
  - Sam Schultz (Lansing Township)
  - Cheryl Loudon (LWBL)
  - David Love (Ingham County Drain Commission)
  - Dave Favero (RACER Trust)