



## Final Report

# Quarterly Technical Progress Report April 2014 – June 2014 RCRA Corrective Action IND 980 700 801

2915 Dr. Martin Luther King Jr. Boulevard, Anderson, IN  
Revitalizing Auto Communities Environmental Response Trust

Prepared for: Indiana Department of Environmental  
Management

## Conestoga-Rovers & Associates

6520 Corporate Drive  
Indianapolis, Indiana 46278

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## **Section 1.0 Introduction**

Conestoga-Rovers and Associates (CRA), on behalf of the Revitalizing Auto Communities Environmental Response (RACER) Trust, has prepared this Quarterly Technical Progress Report for the RACER Trust facility located at 2915 Dr. Martin Luther King Junior Boulevard in Anderson, Indiana (Facility or Site).

This Quarterly Technical Progress Report has been prepared to summarize activities related to the Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI), Interim Measures (IM) activities, and Corrective Measures (CM) at the Facility for the period of April through June 2014.

## **Section 2.0 Summary of RFI, Interim Measures, and Corrective Measures Activities**

### **2.1 RCRA Facility Investigation/Environmental Indicators Determination**

RFI activities conducted during this reporting period included monitoring well abandonment in accordance with the Monitoring Well Decommissioning Work Plan (CRA, March 5, 2014), groundwater monitoring upgradient of the former Wastewater Treatment Plant (WWTP) in accordance with the WWTP Groundwater Investigation Work Plan (CRA, September 27, 2014), preparation and submittal of the Perched Groundwater Investigation Report of Findings (CRA, May 12, 2014), preparation and submittal of an Addendum to the Refined Human Health Risk Assessment (CRA, May 12, 2014), and preparation and submittal of the revised Final RCRA RFI Report (CRA, June 2014).

The Monitoring Well Decommissioning Work Plan (CRA, March 5, 2014) was initiated on March 31, 2014 and was completed on April 2, 2014. The objective of the Work Plan was to decommission monitoring wells north and west of the former main manufacturing building that are not included in the Indiana Department of Environmental Management (IDEM) approved Groundwater Monitoring Plan. Between March 31, and April 2, 2014, 17 monitoring wells were successfully abandoned in accordance with applicable regulations. Details of the well decommissioning activities will be provided in the 2014 Annual Monitoring Report.

In April, groundwater sampling was conducted upgradient of the former WWTP in accordance with the WWTP Groundwater Investigation Work Plan (CRA, September 27, 2013). The objective of the Work Plan was to delineate the horizontal extent of groundwater impacts upgradient of the former WWTP. The groundwater sampling conducted on April 10, 2014 was comprised of recently installed monitoring wells (MW93-13 to MW96-13) and other nearby

monitoring wells (MW 16, MW 68, MW 84). Prior to groundwater sampling, each monitoring well was purged, consisting of the removal of sufficient well volumes to allow for the stabilization of field parameters including conductivity, temperature, and turbidity and monitored natural attenuation (MNA) field parameters including dissolved oxygen, ferrous iron, oxygen reduction potential, and pH. Once field parameters were stabilized, samples were collected directly into pre-cleaned bottles provided by the laboratory for chemical analysis of Target Compound List (TCL) volatile organic compounds (VOCs) and MNA laboratory parameters [i.e., alkalinity (bicarbonate and carbonate), chloride, dissolved gases (ethane, ethene, methane), dissolved manganese, dissolved organic carbon, hardness, nitrate, nitrite, sulfate, sulfide, and total organic carbon]. A summary of the findings is provided in Section 3.0.

The Perched Groundwater Investigation Work Plan (CRA, April 3, 2013) was implemented between April and July 2013. The objective of the Work Plan was to monitor the groundwater conditions in the perched groundwater zone in the vicinity of the former Bay M26/M27 and to delineate the vertical extent of metals impacted groundwater. The results were reported to IDEM in the Perched Groundwater Investigation Report of Findings and a summary of the findings from the investigation is provided in Section 3.0.

A Refined Human Health Risk Assessment (CRA, October 7, 2013) was prepared to assess the results of investigations conducted to date to determine whether realistic exposure levels of Site constituents have the potential to adversely affect human health on- or off-Site. This report was submitted to IDEM in October 2013 and approved by IDEM in November 2013, with the exception of the non-default residential and commercial/industrial vapor intrusion groundwater screening levels. On May 12, 2014 an Addendum to the Refined Human Health Risk Assessment was submitted to IDEM detailing that RACER Trust agreed to use IDEM's Remediation Closure Guide generic residential and commercial/industrial groundwater vapor exposure screening levels. The Refined Human Health Risk Assessment, coupled with the Addendum, was approved by IDEM on May 19, 2014.

The revised Final RFI Report (CRA, June 2014) was prepared to summarize the historical information presented in earlier versions of the report by AECOM (previously EarthTech) and supplemental information generated through CRA-lead investigations at new and existing Areas of Interest (AOIs). The report, submitted to IDEM on June 23, 2014, provided a comparison of available data in tabular form to IDEM's 2013 Remediation Closure Guide Screening Levels. Soil and groundwater exceedances of the Remediation Closure Guide Screening Levels are addressed in the Refined Human Health Risk Assessment, approved by IDEM in May 2014. The revised and Final RFI Report was approved by IDEM on July 22, 2014.

RFI activities are 100-percent complete.

## 2.2 Interim Measures

Interim measures being conducted at the Site consist of routine groundwater and surface water monitoring and related reporting in accordance with the Site-wide Groundwater Monitoring Plan (AECOM, 2010) and subsequent recommendations made in the 2013 Annual Groundwater Monitoring Report.

Semi-annual groundwater and routine surface water monitoring was conducted between April 9 and April 16, 2014.

Interim measures are ongoing.

## 2.3 Corrective Measures

Corrective measures activities conducted during this reporting period included an MNA evaluation of the WWTP VOC groundwater plume and preparation of Environmental Restrictive Covenants (ERCs).

The objective of the MNA evaluation is to determine the concentrations of select VOCs at target locations upgradient of potential receptors that is not likely to result in a future exceedance of applicable criteria at the receptor location(s). This evaluation is ongoing and will be presented in the revised Corrective Measures Proposal.

Draft ERCs for Tracts C, D, E, and F were prepared and submitted to IDEM on May 20, 2014. IDEM provided comments on the draft ERCs on June 19, 2014. Revisions to ERCs for the aforementioned are ongoing. The purpose of the ERCs is to ensure residual contamination at the Site does not pose an unacceptable risk to future receptors.

## Section 3.0 Summary of Findings

### 3.1 RCRA Facility Investigation/Environmental Indicators Determination

Two groundwater sampling events were conducted in accordance with the WWTP Groundwater Investigation Work Plan (i.e., November 2013 and April 2014), the results of which indicate there are elevated concentrations of VOCs (trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, and 1,1-dichloroethane) at the perceived WWTP VOC plume source area (MW 68) and north (MW 94-13) and south (MW 93-13) of MW 68. The concentrations detected at the three wells are consistent with historically detected concentrations at MW 68. The absence of elevated concentrations of these parameters at

MW 95-13 (west), MW 96-13 (west), MW 16 (southwest), and MW 84 (west) suggest that the South Court VOC Plume is not a source of groundwater impact to the WWTP VOC Plume. A report of findings will be prepared to provide additional details and interpretation of results.

The Perched Groundwater Investigation Report of Findings (CRA, May 12, 2014) concluded that the historical release at the former Bay M26/M27 excavation area resulted in elevated concentrations of total and hexavalent chromium (total and dissolved) and/or total cyanide in perched groundwater in the vicinity of the release. However, the elevated concentrations do not pose a current unacceptable risk. The future risk associated with metals impacted groundwater at shallow depths will be mitigated through institutional controls.

### **3.2 Interim Measures**

Between April 9 and April 16, 2014, semi-annual groundwater monitoring and routine surface water monitoring was completed. The field data, validated analytical data and discussion of results will be provided to IDEM in the 2014 Annual Groundwater Monitoring Program Report.

### **3.3 Corrective Measures**

The MNA evaluation for the WWTP VOC groundwater plume is ongoing. The findings of the evaluation, once completed, will be included in the Corrective Measures Proposal.

## **Section 4.0 Summary of Changes to RFI, Interim and/or Corrective Measures**

The revised and Final RFI Report (CRA, June 2014) was approved by IDEM on July 22, 2014 as detailed in Section 2.1.

There were no changes to the Interim Measures and/or Corrective Measures during the reporting period.

## **Section 5.0 Summary of Contacts with Representatives of Local Community, Public Interest Groups, or State Government**

On May 20, 2014 RACER Trust submitted draft ERCs for Tracts C, D, E, and F to IDEM. On June 19, 2014, following their review, IDEM provided comments to CRA and RACER regarding the draft ERCs.

## **Section 6.0 Summary of Problems or Potential Problems**

No problems were encountered during this reporting period.

## **Section 7.0 Actions Taken To Rectify Problems**

No problems were encountered during this reporting period.

## **Section 8.0 Changes in Personnel**

There were no changes to personnel during the reporting period.

## **Section 9.0 Projected Work for July through September 2014**

Projected work for July through September 2014 includes the following:

- Residential tap sampling and reporting
- July surface water sampling event
- Reporting for the WWTP Groundwater Investigation
- Finalize the draft Environmental Restrictive Covenants for the Site
- Preparation and submittal of the Draft Corrective Measures Proposal

## **Section 10.0 Reports and Data**

The Quarterly Technical Progress Report, January 2014 through March 2014, was submitted to IDEM on April 28, 2014.

The Perched Groundwater Investigation Report of Findings was submitted to IDEM on May 12, 2014. The Report of Findings was approved by IDEM on June 26, 2014.

An Addendum for the Refined Human Health Risk Assessment detailing that RACER Trust agreed to use IDEM's Remediation Closure Guide generic residential and commercial/industrial groundwater vapor exposure screening levels was submitted to IDEM on May 12, 2014. The Refined Human Health Risk Assessment, coupled with the Addendum, was approved by IDEM on May 19, 2014.

The revised and Final RFI Report was submitted to IDEM on June 23, 2014. The Report of Findings was approved by IDEM on July 22, 2014.

An update of the RCRA Corrective Action activities completed at the Facility is presented in Project Fact Sheet 17 (July 2014) submitted with this Quarterly Technical Progress Report as Appendix A.

# Appendix A

Fact Sheet 17 – July 2014



# Revitalizing Auto Communities Environmental Response Trust

Project Fact Sheet 17 | July 2014 | [www.racertrust.org](http://www.racertrust.org)

## RCRA CORRECTIVE ACTION REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST

2915 Dr. Martin Luther King Jr. Boulevard (Formerly Pendleton Ave.) Anderson, Indiana

### INTRODUCTION

The Revitalizing Auto Communities Environmental Response (RACER) Trust has prepared this Project Fact Sheet to update the local community about environmental activities being conducted at the facility located at 2915 Dr. Martin Luther King Jr. Boulevard (formerly Pendleton Avenue), Anderson, Indiana (Site). These activities are conducted under the oversight of the Indiana Department of Environmental Management (IDEM) and in accordance with an Agreed Order issued for the Site.

The Corrective Action process includes a Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) of the soil and groundwater conditions at the Site. Based upon an evaluation of the results obtained during these investigations, appropriate corrective measures will be proposed and implemented.

### SITE BACKGROUND

The Site is located on the southwest side of Anderson in Madison County, Indiana. Formerly, the facility comprised approximately 3,000,000 square feet of manufacturing area situated on 234 acres. GM operations at the Site began in 1929. Additional plant buildings were constructed and the plants were expanded several times between 1937 and 1989. Demolition of the plant commenced in 2007. Demolition of the main plant buildings and restoration activities were completed in 2009.

As a result of General Motors Corporation's (GMC's) 2009 bankruptcy, certain operating assets of GMC were sold on July 10, 2009 to a newly formed company known as General Motors LLC. Existing non-continuing assets, including the Site, became the property of Motors Liquidation Company (MLC), in its capacity as debtor-in-possession in the bankruptcy case. In October 2010, the United States Government announced that MLC had agreed to resolve its liabilities at 89 sites relating to liabilities under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), RCRA, and the Clean Air Act through an environmental response trust fund. On March 31, 2011, the RACER Trust became effective and will conduct, manage, and fund cleanup at the 89 sites formerly owned by MLC, including the Site.



### PROJECT FACT SHEET

Key documents that have been submitted to U.S. EPA and IDEM and are available for review in the public repository.

The following documents have been submitted since 2006:

- Interim Measure Work Plan - Production Well Abandonment, July 27, 2006
- Response to IDEM's Comments on Final RFI Report, April 5, 2007
- Revised Final RFI Report and Response to IDEM's Comments, September 27, 2007
- Production Well Abandonment Memo, November 16, 2007
- Corrective Measures Plan, March 31, 2008
- Site-Wide Groundwater Monitoring Plan, March 31, 2008
- Notification to IDEM of a new potential contaminant source area, September 5, 2008
- Progress Reports from 1998 to present
- Annual Groundwater Monitoring Reports for 2006 to 2013
- Vapor Intrusion Study Work Plan, July 2010
- Residential Vapor Intrusion Assessment Work Plan, September 1, 2011
- Investigation Work Plan, September 2, 2011
- Vapor Intrusion Study Work Plan Implementation - Technical Memorandum, November 3, 2011
- Residential Vapor Intrusion Assessment Technical Memorandum, March 7, 2012
- Supplemental RFI Results Technical Memorandum, March 7, 2012
- Soil and Perched Groundwater Delineation Work Plan, June 26, 2012
- Waste Water Treatment Plant Source Area Investigation Work Plan, January 4, 2013
- Perched Groundwater Investigation Work Plan, April 3, 2013
- Revised Risk Assessment Approach Letter, April 26, 2013
- Waste Water Treatment Plant Source Area Investigation Technical Memorandum, July 31, 2013
- Revised Risk Assessment Interim Deliverable, August 9, 2013
- Waste Water Treatment Plant Groundwater Investigation Work Plan, September 27, 2013
- Refined Human Health Risk Assessment and Derivation of Site-Specific Risk-Based Screening Levels, October 2013
- Refined Human Health Risk Assessment - Addendum, May 12, 2014
- Perched Groundwater Investigation Report of Findings, May 12, 2014
- RFI Final Report, June 2014

## RCRA CORRECTIVE ACTION

The RACER Trust is currently conducting Corrective Action activities at the Site. Corrective Action activities are required for all facilities that applied for a permit to store hazardous waste and include an evaluation of whether plant waste management operations have impacted the environment. The program includes a RFI that is designed to identify and address any significant risks to human health or the environment resulting from the release of hazardous waste or hazardous constituents to environmental media such as soil or groundwater. The scope of the RFI and required cleanup work has been and will continue to be reviewed with IDEM. The activities will be conducted according to standards that are protective of human health and the environment.

The Corrective Action process uses Environmental Indicators (EIs) to evaluate and report on current site conditions related to potential current human exposure and potential groundwater migration. Under the RCRA program, U.S. EPA's top priority is to make sure that these two Environmental Indicators are satisfied at a given site. MLC submitted reports to IDEM for the two Environmental Indicators to demonstrate that current human exposure and migration of contaminated groundwater are under control. Groundwater monitoring to verify plume stability is ongoing.

## RCRA FACILITY INVESTIGATION

RFI activities have been completed at the Site. The purpose of an RFI is to investigate any areas of the Site that may need further action and to determine what additional steps might be appropriate. The results of these investigations, including an assessment of potential risk, were documented in reports that have been submitted to IDEM and copies are available for review in the IDEM's virtual file cabinet. A revised Final RFI Report (Conestoga-Rovers & Associates, June 2014) was submitted to IDEM providing details of historical investigations summarized in the previous Final RFI Reports and is amended with details of investigations conducted since that time. The revised and Final RFI Report was approved by IDEM on July 22, 2014.

A Refined Human Health Risk Assessment was prepared to assess the results of investigations conducted to date to determine whether realistic exposure levels of Site constituents have the potential to adversely affect human health on- or off-Site. This report was submitted to IDEM in October 2013 and approved with the exception of the non-default residential and commercial/industrial vapor intrusion groundwater screening levels in November 2013.

On May 12, 2014 an Addendum to the Refined Human Health Risk Assessment was submitted to IDEM detailing that RACER Trust agreed to use IDEM's Remediation Closure Guide generic residential and commercial/industrial groundwater vapor exposure screening levels. The Refined Human Health Risk Assessment, coupled with the Addendum, was approved by IDEM on May 19, 2014.

RFI activities are 100-percent complete.

## COMPLETED INTERIM MEASURES

Interim Measures (IM) were conducted in the South Court Area in July 2005 to address concentrations of trichloroethene (TCE) in a small area of soil and shallow groundwater that were significantly higher than in the surrounding area.

Soil was excavated to the depth of the perched water table at approximately 8 feet below ground and disposed off-site. Hydrogen-Releasing Compound® (HRC) was mixed into soil at the bottom of the excavation, to enhance degradation of TCE in groundwater. Following placement of the HRC®, the excavation was backfilled and the pavement replaced.

Interim measures were also conducted in 2007 to plug and abandon five former groundwater production wells at the facility. This work was performed according to Indiana Department of Natural Resources guidelines.

The RACER Trust continues to complete interim Site-wide groundwater monitoring in accordance with the Site-wide Groundwater Monitoring Plan.

## CORRECTIVE MEASURES

A draft Corrective Measures Proposal was submitted to IDEM in March 2008. A revised corrective measures proposal will be prepared as necessary to address the results of activities completed since the time of the initial proposal.

## UPCOMING ACTIVITIES

Routine groundwater and surface water monitoring and reporting is ongoing. Draft Environmental Restrictive Covenants for the Site will be finalized. Residential tap sampling and reporting will be completed. A revised draft Corrective Measures Proposal will be completed.

## PUBLIC PARTICIPATION

An information repository has been established where current project related documents are available for public review. The information repository is located at:

**Anderson Public Library**  
111 East 12th Street

Anderson, IN 46016  
Tel: (765) 641-2450

Project Fact Sheets will be issued periodically during the implementation of the Corrective Action program to keep the community informed of ongoing activities at the Site.

## CONTACT INFORMATION

### IDEM

**Robert Marshall**  
Tel: (317) 232-4534  
Toll free: (800) 451-6027

### RACER Trust

**Robert (Bob) Hare**  
Tel: (313) 486-2908