

Transmitted via Electronic Mail

Mr. Chris Black
U.S. Environmental Protection Agency – Region 5
Land and Chemicals Division
77 W. Jackson Blvd. DE-97
Chicago, IL 60604-3590

Arcadis of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241
www.arcadis.com

Subject:

First Quarter 2016 Progress Report (No. 19)
Revitalizing Auto Communities Environmental Response (RACER) Trust
Buick City Site, Flint, Michigan

Reference:

B0064410.2016

Date:

April 15, 2016

Dear Mr. Black:

On behalf of Revitalizing Auto Communities Environmental Response Trust (RACER), Arcadis is submitting this First Quarter 2016 Progress Report (No. 19) in accordance with Section VI (18b) of the RACER Trust's Administrative Order on Consent (Consent Order), Docket Number RCRA-05-2011-0024 for the Buick City Site located in Flint, Michigan (the Site), which was effective on September 29, 2011.

Please note that in accordance with General Motors Corporation's Administrative Order on Consent Number R8H-5-00-02 for the North American Operations [NAO] Flint Operations Site (also known as Buick City) Quarterly Progress Reports No.1 through 46 were submitted to the United States Environmental Protection Agency (EPA) documenting Site activities from January 1, 2000 through June 30, 2011.

This First Quarter 2016 Progress Report (No. 19) covers the period of January 1, 2016 through March 31, 2016.

The following briefly summarizes the work performed and data collected, problems encountered, project schedule, and estimated percent complete for a list of activities.

1. Data Collected This Quarter

The samples collected as part of Site investigation or monitoring activities during this quarter are discussed below. This data will be presented to the EPA in the Corrective Measures Implementation Work Plan, except as noted below.

1.1 Storm Sewer Water Samples

In February, Arcadis conducted Outfall 005 sampling to evaluate the potential groundwater/surface water interface (GSI) pathway for the discharge of water to the Flint River. A total of two samples were collected along the Outfall 005 storm sewer and submitted for laboratory analysis of volatile organic compounds (VOCs), arsenic, and selenium.

Also, as required per Part 1, Section A 2 in the current National Pollution Discharge Elimination System (NPDES) Permit No. MI0001597, weekly composite samples were collected from Monitoring Point 003A. This data will be included in the 2016 Yearly Pollutant Minimization Plan (PMP) for PCBs report, which will be submitted to the Michigan Department of Environmental Quality (MDEQ) as required in the NPDES permit.

1.2 Groundwater Samples

In February, Arcadis collected two groundwater samples to delineate GSI impacts at the Southend of the Site. One sample was submitted for laboratory analysis of semi-volatile organic compounds (SVOCs) and one sample was submitted for analysis of arsenic and lead.

2. Work Performed This Quarter

Attachments 1, 2, and 3 present the monthly Site progress reports for January, February, and March that document the work performed this quarter.

3. Problems Encountered

No problems were encountered.

4. Project Schedule – Near-Term Milestone Activities Anticipated During the Next Quarter

A projected field work schedule for the second and third quarter of 2016 is included in **Attachment 4**.

4.1 Routine Work

Task 1 Outfall 003/004 Oil Removal Systems

- Continue OMM inspections of system.
- Continue semi-annual inspection of the Leith Street retaining wall.

Task 6 Maintain Booms on Outfalls

- Continue to perform inspections and maintenance (as necessary) of Outfalls 002, 003, 004, and 005. Dispose of waste as necessary.
- Continue to perform inspections of Oil Interceptor #2.

Task 12 Agency Coordination/Negotiation, Reporting, Project Management

- Continue to participate in regulatory agency calls.
- Prepare Quarterly Report for submittal to EPA.
- Generate Monthly Reports for submittal to EPA.

Task 17 Compliance

- Continue Outfall 003A weekly sample collection.
- Continue quarterly P-trap inspections.
- Continue semi-annual SWPPP inspections.

Task 19 Remedy Design, Implementation and OM&M

- Continue OM&M phase of Outfall 002 passive recovery trench.

4.2 Non-Routine Work

Task 1 *Outfall 003/004 Oil Removal Systems*

- Complete the annual cleaning and maintenance for Outfall 003/004 System.
- Performed line jet cleaning of 003/004 system.

Task 2 *LNAPL Investigation*

- Complete additional Supplemental Corrective Measures Investigation (SCMI) activities at select areas of interest (AOIs).
- Continue transmissivity investigation and evaluation.

Task 3 *LNAPL Recovery Bench and Field-Scale Testing*

- Finalize the AOI-36-1/36-2 multi-phase extraction (MPE) pilot testing summary memo.
- Continue vapor intrusion investigations.

Task 7 *Enhanced Groundwater Monitoring*

- Complete additional GSI and 1, 4-Dioxane investigation.
- Complete 2015 Annual Groundwater Sampling Report including proposing the 2016 groundwater sampling plan.

Task 8 *NPDES PLUS Monitoring*

- Continue evaluation of Outfall 004/Outfall 013 storm sewer combined discharge.

Task 19 *Remedy Design, Implementation and OM&M*

- Terminate all permits associated with the AOI-09B MPE system.
- Continue the Outfall 004 boom study.
- Continue the evaluation of Outfall 003 reroute remedy options.
- Continue coordinating the design of the downstream Outfall 004 infiltration elimination options.

5. Estimated Percent Complete

- Task 1* *Outfall 003/004 Oil Removal Systems*
- Outfall 003/004 Oil removal System OM&M – Ongoing
- Task 2* *LNAPL Investigation*
- LNAPL LIF Investigations – 100%
 - Southend Natural Source Zone Depletion Study – 100%
 - Southend Transmissivity Testing – 100%
 - Northend Natural Source Zone Depletion Study – 90%
 - Northend Transmissivity Testing – 85%
 - Additional LNAPL Investigation – 85%
- Task 3* *LNAPL Recovery Bench and Field-Scale Testing*
- LNAPL Bench Scale Testing – 25%
 - LNAPL Pilot Scale Testing – 66%
- Task 7* *Enhanced Groundwater Monitoring*
- Groundwater Monitoring – Ongoing
- Task 8* *NPDES PLUS Monitoring*
- NPDES PLUS Monitoring – Ongoing
- Task 9* *RCRA Closures, Well Abandonment, Restrictive Covenants, Resolve UST Issues*
- Northend RCRA WMU Closures – 90%
 - Southend RCRA WMU Closures – 90%
 - Northend Restrictive Covenant – 0%
 - Southend Restrictive Covenant – 90%
 - Monitoring Well Abandonments – 5%
 - UST Issue Resolution – 100%
- Task 10* *Maintain Select Surface Covers*
- Maintain Select Surface Covers – Ongoing

- Installation of Additional Surface Cover – Southend – 80%

Task 11 Lead Soil Removal

- Lead Soil Removal – 100%
- Northern Parcel Investigation – 100%
- Northern Parcel Soil Removal – 100%

Task 12 Agency Coordination/Negotiation, Reporting, Project Management

- RFI Phase I Report - 100%
- RFI Phase II Report - 100%
- Human Health Exposure Control EI Report - 100%
- CA 750 Report - 100%
- Revised Corrective Measures Proposal (CMP), May 1, 2008 – 100%
- Revised CMP Addendum No. 1 – 100%
- Southend Corrective Measures Implementation (CMI) Work Plan – 100%
- Revised CMP Addendum No. 2 – Northend and Site-wide Groundwater - 100%
- Revised CMP Addendum No. 2-1 – Response to EPA Comments - 100%
- 2012 CMI Annual Report – 100%
- 2013 CMI Annual Report – 100%

Task 13 Outfall 002/005 Oil Minimization & Investigation

- Outfall 002 Storm Sewer Evaluation - 100%
- Outfall 003 Storm Sewer Evaluation – 65%
- Outfall 004 Re-route Phase I – Re-route Outfall 004 into Outfall 013 - 100%
- Outfall 004 Re-route Phase II – Bulkhead Installation – 15%
- Outfall 005 Storm Sewer Evaluation – 100%
- Outfall 002 Final Measure Implementation– 90%
- Outfall 003 Final Measure Implementation – 30%
- Outfall 005 Final Measure Implementation – 90%
- Outfall 007 Final Measure Implementation – 100%

Task 14 Address 15 Areas of Subsurface LNAPL

- Address 15 Areas of LNAPL – 7%
- AOI 09-B System Design, Permitting, and Construction – 100%

Task 15 LNAPL Recovery OM&M Followed by Secondary LNAPL Remediation

- LNAPL Recovery OM&M – 40%
- Secondary LNAPL Remediation – 0%

6. Budget Status

- 2016 Budget – The 2016 Budget Request was approved by the EPA on December 17, 2015.

If you have any questions, please contact me.

Sincerely,
Arcadis of Michigan, LLC



Micki Maki
Project Manager

Copies:

Peter Quackenbush, Michigan Department of Environmental Quality, (via email)
William Yocum, Michigan Department of Environmental Quality (via email)
Flint Public Library
Grant Trigger, RACER Trust (via email)
Dave Favero, RACER Trust (via email)

Attachments:

Attachment 1 – January 2016 Project Update - RACER Buick City Site
Attachment 2 – February 2016 Project Update - RACER Buick City Site
Attachment 3 – March 2016 Project Update - RACER Buick City Site
Attachment 4 – RACER Buick City Field Schedule –2nd Quarter 2016 and 3rd Quarter 2016.

Attachment 1

January 2016 Project Update

To:
Chris Black, USEPA

Copies:
Grant Trigger, RACER
Dave Favero, RACER
Christi Kiker, ARCADIS

Arcadis of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241

From:
Micki Maki

Date:
February 19, 2016

Arcadis Project No.:
B0064410.2016 01202

Subject:
January 2016 Project Update - RACER Buick City Site, Flint, Michigan

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this January 2016 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from January 1, 2016 through January 31, 2016.

Non-Routine Work

Task 1 - Outfall 003/004 Oil Removal Systems

- Coordinated annual cleaning efforts for Annual 003/004 maintenance event.

Task 2 - LNAPL Investigation

- Reviewed the results of the SCMI investigation and prepare data summary tables.

Task 3 - LNAPL Recovery Bench and Field-Scale Pilot Testing

- Reviewed the results of the vapor intrusion investigation and prepare data summary tables.

Task 7 – Annual Groundwater Monitoring Event

- Completed the evaluation of 2015 groundwater data for Notice of Migration preparation.

- Began evaluation of VOC and 1, 4-Dioxane mass flux transect data.

Task 8 - NPDES Plus Monitoring

- Began preparing summary of data from Outfall 013 sampling events.
- Began evaluation of Factory 84 groundwater data for a mixing zone determination.

Task 12 – Agency Coordination/Negotiation, Reporting and Project Management

- Submitted the 4th Quarterly EPA memo to EPA.
- Performed an annual review of the Health and Safety Plan.

Task 17 – Compliance

- Continued revisions of SWPPP text and figures for SWPPP memo and correspondence.

Task 19 – Remedy Design, Implementation and OM&M

- Continued coordinating design of Outfall 004 storm sewer downgradient remedy.
- Continued design of Outfall 003 reroute options. Began drafting Outfall Bulkhead Summary Memo.

Routine OMM Work

Task 1 - Outfall 003/004 Oil Removal Systems

- Continued OMM activities on the 003/004 system. Activities included inspection of the 003/004 interceptor, weekly gauging, and weekly sampling. Inspections are being performed once per week to ensure that the system is running properly and to determine if any system modifications are warranted to optimize system performance.

Task 6 - Maintain Booms on Outfalls

- Completed inspections and maintenance (as necessary) of Outfalls 002, 003, 004, and 005. Inspections of the outfalls were performed once per week, prior to forecasted rain events, and following rain events to ensure booms were functioning properly and identify when maintenance events were necessary.
- Completed weekly inspections at Oil Interceptor #2 to ensure that the booms are in good order and identify when maintenance events are necessary.

Task 12 – Agency Coordination/Negotiation, Reporting and Project Management

- Generated December monthly EPA summary memo.

Task 17 – Outfall 003A Weekly Sampling

- Collected weekly NPDES permit samples from the Outfall 003A monitoring point.
- Began drafting the December 2015 DEQ monthly report for NPDES monitoring locations.

Task 19 – Remedy Design, Implementation and OM&M

- Generated and submitted the January monthly POTW report to the City of Flint and January monthly air report to MDEQ for the AOI 09-B system.
- Performed the 002 trench inspection.

Attachment 2

February 2016 Project Update

To:
Chris Black, USEPA

Copies:
Grant Trigger, RACER
Dave Favero, RACER
Christi Kiker, ARCADIS

Arcadis of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241

From:
Micki Maki

Date:
March 28, 2016

Arcadis Project No.:
B0064410.2016

Subject:
February 2016 Project Update - RACER Buick City Site, Flint, Michigan

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this January 2016 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from February 1, 2016 through February 29, 2016.

Non-Routine Work

Task 1 - Outfall 003/004 Oil Removal Systems

- Evaluated waste disposal options for Annual 003/004 maintenance event.

Task 2 - LNAPL Investigation

- Finalized boring logs from LNAPL transmissivity testing events.
- Began coordinating for LNAPL transmissivity testing events.
- Began compiling Summary of Site investigation history from 2011 to RACER.
- Prepared an updated Remedy Recommendation Report with addenda and submitted to the EPA.

Task 3 - LNAPL Recovery Bench and Field-Scale Pilot Testing

- Finalized boring logs from vapor intrusion investigations.
- Began finalizing the draft of the MPE pilot testing summary memo.

Task 7 – Annual Groundwater Monitoring Event

- Drafted and submitted notices of migration to RACER.
- Began development of the 2015 Annual Groundwater Report.
- Continued evaluation of VOC and 1,4-Dioxane mass flux transect data.
- Coordinated future groundwater sampling in associated with 1,4-Dioxane investigation.

Task 8 - NPDES Plus Monitoring

- Began preparing the mixing zone determination for arsenic at the Factory 84 Area.

Task 12 – Agency Coordination/Negotiation, Reporting and Project Management

- Conducted meeting with the EPA.
- Began drafting 2016 Bulkhead Summary Memo.

Task 17 – Compliance

- Continued revisions of SWPPP text and figures for SWPPP memo and correspondence.
- Began yearly trend reporting and PMP reporting.

Task 19 – Remedy Design, Implementation and OM&M

- Continued coordinating design of Outfall 004 storm sewer downgradient remedy by completing a boom study of the targeted area.
- Submitted Annual Significant Non-Domestic User Report to the City of Flint.
- Completed evaluation of Outfall 003 reroute options from hydraulics perspective.

Routine OMM Work

Task 1 - Outfall 003/004 Oil Removal Systems

- Continued OMM activities on the 003/004 system. Activities included inspection of the 003/004 interceptor, weekly gauging, and weekly sampling. Inspections are being performed once per

week to ensure that the system is running properly and to determine if any system modifications are warranted to optimize system performance.

Task 6 - Maintain Booms on Outfalls

- Completed inspections and maintenance (as necessary) of Outfalls 002, 003, 004, and 005. Inspections of the outfalls were performed once per week, prior to forecasted rain events, and following rain events to ensure booms were functioning properly and identify when maintenance events were necessary.
- Completed weekly inspections at Oil Interceptor #2 to ensure that the booms are in good order and identify when maintenance events are necessary.

Task 12 – Agency Coordination/Negotiation, Reporting and Project Management

- Generated January Monthly EPA Summary Memo.

Task 17 – Outfall 003A Weekly Sampling

- Collected weekly NPDES permit samples from the Outfall 003A monitoring point.

Task 19 – Remedy Design, Implementation and OM&M

- Generated and submitted the January Monthly POTW Report to the City of Flint and January Monthly Air Report to MDEQ for the AOI 09-B system.
- Performed the 002 trench inspection.

Attachment 3

March 2016 Project Update

To:
Chris Black, USEPA

Copies:
Grant Trigger, RACER
Dave Favero, RACER
Christi Kiker, ARCADIS

Arcadis of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241

From:
Micki Maki

Date:
April 12, 2016

Arcadis Project No.:
B0064410.2016

Subject:
March 2016 Project Update - RACER Buick City Site, Flint, Michigan

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this March 2016 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from March 1, 2016 through March 31, 2016.

Non-Routine Work

Task 1 - Outfall 003/004 Oil Removal Systems

- Evaluated waste disposal options for the Outfall 003/004 system annual maintenance event.

Task 2 - LNAPL Investigation

- Performed LNAPL transmissivity testing at 16 monitoring wells located in the Northend of the Site.
- Began evaluation of LNAPL transmissivity testing data.
- Compiled PCB delineation investigation information for review.

Task 3 - LNAPL Recovery Bench and Field-Scale Pilot Testing

- Continued drafting the AOI-36-1/36-2 MPE pilot testing summary memo.

Task 7 – Annual Groundwater Monitoring Event

- Continued preparing the 2015 Annual Groundwater Report.
- Began preparation for future 1,4-Dioxane investigation.

Task 8 - NPDES Plus Monitoring

- Began preparing an NPMP Summary Memo to transmit data to the MDEQ
- Began preparing for Outfall 013 sampling event.
- Finalized summary memo of Outfall 001 storm sewer data.
- Continued preparation of the draft Factory 84 mixing zone determination.

Task 12 – Agency Coordination/Negotiation, Reporting and Project Management

- Continued drafting 2016 Bulkhead Summary Memo.

Task 17 – Compliance

- Completed revisions of text and figures for SWPPP.
- Submitted draft NPDEs Yearly Trend Monitoring Report and Pollution Minimization Program report to RACER.

Task 19 – Remedy Design, Implementation and OM&M

- Continued coordinating design of Outfall 004 storm sewer downgradient remedy by completing a boom study of the targeted area.
- Continued evaluation of the Outfall 003 storm sewer reroute.

Routine OMM Work

Task 1 - Outfall 003/004 Oil Removal Systems

- Continued OMM activities on the 003/004 system. Activities included inspection of the 003/004 interceptor, weekly gauging, and weekly sampling. Inspections are being performed once per week to ensure that the system is running properly and to determine if any system modifications are warranted to optimize system performance.

Task 6 - Maintain Booms on Outfalls

- Completed inspections and maintenance (as necessary) of Outfalls 002, 003, 004, and 005. Inspections of the outfalls were performed once per week, prior to forecasted rain events, and following rain events to ensure booms were functioning properly and identify when maintenance events were necessary.
- Completed weekly inspections at Oil Interceptor #2 to ensure that the booms are in good order and identify when maintenance events are necessary.

Task 12 – Agency Coordination/Negotiation, Reporting and Project Management

- Generated February Monthly EPA Summary Memo.

Task 17 – Outfall 003A Weekly Sampling

- Collected weekly NPDES permit samples from the Outfall 003A monitoring point.

Task 19 – Remedy Design, Implementation and OM&M

- Generated and submitted the February Monthly POTW Report and permit termination request to the City of Flint and February Monthly Air Report and notice for void of permit to MDEQ for the AOI 09-B system.
- Performed the 002 trench inspection.

Attachment 4

RACER Trust Buick City

Field Schedule 2nd

Quarter and 3rd Quarter

2016

