



ARCADIS US, Inc.
10559 Citation Drive
Suite 100
Brighton
Michigan 48116
Tel 810.229.8594
Fax 810.229.8837
www.arcadis-us.com

Mary Vanderlaan
Supervisor, Lansing District
Michigan Department of Environmental Quality
Water Resources Division
P. O. Box 30242
Lansing, MI 48909

ENVIRONMENT

Subject:
NPDES Permit No. MI0001597
2012 Annual Pollution Minimization Program Report for PCBs
RACER Trust Buick City – Flint, Michigan

Date:
April 18, 2013

Contact:
Christopher S. Peters

Dear Ms. Vanderlaan:

Phone:
517.324.5052

This 2012 Annual Pollutant Minimization Program (PMP) Report for polychlorinated biphenyls (PCBs) is being submitted by ARCADIS on behalf of the Revitalizing Auto Communities Environmental Response (RACER) Trust for the Buick City Site (the Site), which is located at 902 E. Leith Street in Flint, Michigan. The goal of the PMP is to maintain the effluent concentration of total PCBs at or below 0.026 nanograms per liter (ng/L) at Monitoring Point 003A. As required per the above referenced National Pollutant Discharge Elimination System (NPDES) permit, Part 1, Section A(6), the permittee shall submit on or before May 15 of each year a status report to the Michigan Department of Environmental Quality (MDEQ) that includes 1) the monitoring results for the previous year, 2) an updated list of potential sources, and 3) a summary of all actions taken to reduce or eliminate identified sources of PCBs.

Email:
Chris.Peters@arcadis-us.com

Our ref:
B0064410.4013

List of Potential PCB Sources

The sources of PCBs at the Site are from Light Non-Aqueous Phase Liquid (LNAPL) plumes. Known potential sources of PCBs are present at six discrete areas of the Site. They include the former Factory 10/Scrapyard Area, the former Factory 81 Area, the former Factory 05 Area, the former Building 86/Leith Street Overpass Area, the former Factory 83/84 Area and the former Building 12 Area. A site location map is included as **Figure 1**. No new potential sources of PCBs were identified in 2012.

Imagine the result

Actions Taken to Reduce or Eliminate PCB Sources and to Maintain PCB Effluent Concentrations Below NPDES Criterion

In 2012 three suspected releases (March 12, July 3 and July 19, 2012) to the Flint River were reported to the National Response Center (NRC), MDEQ and City of Flint Water Pollution Control Facilities. Releases were minimal and immediately addressed. Notifications of Release summary letters are included as **Attachment 1**.

RACER maintains oil absorbent booms and oil containment booms at Outfalls 002, 003, 004 and 005 in order to contain periodic oil sheens at the Flint River. The booms at each outfall consist of an initial line of oil absorbent booms to contain and absorb oil during normal outfall flow and an oil containment boom set farther out into the river to contain any discharge during high flow events. A secondary oil containment boom line is set up on an as needed basis to provide an additional level of protection. All booms are installed in such a manner that allows them to adjust to the fluctuating river level. The outfall containment areas are currently inspected at a minimum of once per week for oil/debris accumulation, absorbent boom saturation, and that the containment booms are in good condition and functioning properly. Based on visual observations, the booms are changed on an as-needed basis to ensure proper working order. In addition, accumulated oil and debris in the outfall containment areas are cleaned via vacuum extraction and oil absorbent slabs on an as-needed basis to prevent potential environmental releases.

Outfalls 003 and 004

The Outfall 003/004 Storm Water Diversion and Treatment System (Outfall 003/004 System) was completed in January 2011 and continues to remove oils and sediment in the Outfall 003 and 004 storm sewers prior to reaching the Flint River. During dry weather flow conditions, water, oil and debris from both storm sewers 003 and 004 are diverted into a common manhole at the BaySeparator™, from which it is discharged to an oil/water separator, and in turn discharged back into storm sewer 003 for discharge. Therefore, at dry weather flow conditions the only flow discharging to Outfall 004 is whatever infiltrates the storm sewer between the diversion structure and the outfall. The Outfall 003/004 System is design to capture dry weather and first flush stormwater flow. During stormwater conditions, water in the sewers is diverted around the Outfall 003/004 System and directly to the outfalls.

The Outfall 003/004 System is maintained at least once per week. Water levels and oil levels are actively being monitored in vaults, the BaySeparator™ manholes, and

the oil-water separator. Storm water downstream of the System is also being monitored in manholes as well as the Flint River Outfalls to check for accumulating oils. Routine maintenance events were scheduled based on field observations and levels; including removal of debris and trash racks from the diversion structures, jetting of HDPE piping to clear blockage, and a cleaning event of the BaySeparator™ system. The BaySeparator™ cleaning event was performed in November and December 2012 and included removal of approximately 33,357 gallons of oil, water, and sediment utilizing a vacuum box and power washing the surfaces to ensure all material was removed.

In addition to the Outfall 003/004 System, Oil Interceptor #2, which is located upstream of the Outfall 003/004 System, continues to function as an in-line oil water separator along one of the Outfall 003 storm sewer mains to prevent oil and debris from reaching the Flint River. RACER maintains Oil Interceptor #2 by utilizing two rows of oil absorbent booms spanned perpendicular to the direction of flow. The booms are inspected on a weekly basis for oil/debris accumulation, absorbent boom saturation, and that the absorbent booms are in good condition and functioning properly. Based on visual observations, the booms are changed and debris removed on an as-needed basis to ensure proper working order. In 2012 two maintenance events were performed on Oil Interceptor #2, resulting in the collection and disposal of 20 drums (an estimated 960 gallons) of Toxic Substances Control Act (TSCA) PCB waste.

Studies were also performed within the Outfall 003 storm sewer system in 2012 to identify potential areas of LNAPL infiltration and potential bulkheading locations. The Outfall 003 storm sewer system consists of two main sewer lines that run from upgradient properties through the Site, then converge into one main sewer that ultimately discharges to the Flint River. In addition, the Outfall 003 storm sewer system includes numerous lateral sewers that drain portions of the Outfall 003 drainage basin and discharge to one of the mains running through the Site

The Outfall 003 boom study evaluated the storm sewer network beginning at the upgradient property boundaries, where the storm sewers enter the Site from the City of Flint and continued downgradient to the Outfall 003/004 System. Oil absorbent booms were placed in on Site manholes, both in the sewer mains and laterals to capture LNAPL over a predetermined period of time and allow for identification of the portions of the mains and/or laterals where LNAPL is infiltrating the sewers. As a result of the studies six laterals of Outfall 003 were selected for bulkheading. The six locations were based on LNAPL infiltration and whether or not bulkheading of these laterals

would adversely impact upstream service areas. Bulkheading of select laterals of Outfall 003 will be completed in 2013. Options for addressing the main sewers are being developed.

Outfall 005

P-traps previously installed in the Leith Street Overpass under drain system continue to be monitored quarterly to verify their continued operation.

In 2012 boom studies were performed along the Outfall 005 storm sewer at select locations to determine oil infiltration locations and identify potential bulkheading locations. Bulkheading of Outfall 005 will be completed in April 2013 and eliminate the Site's contribution to the Outfall, only leaving the drainage from Leith Street and the adjacent property owner.

Site wide

As part of the ongoing Resource Conservation and Recovery Act (RCRA) Corrective Action activities at the Site, RACER completed additional subsurface investigations (laser induced fluorescence [LIF]) to delineate the source areas of PCB containing LNAPL in September and November 2012. This information will be used to help develop options to address PCB containing LNAPL.

Monitoring Results

Monitoring results for the previous year are provided in attachments to this document and include:

- **Attachment 2** – Presents the quarterly progress reports submitted to the Environmental Protection Agency (EPA) concerning work completed as part of the RCRA Corrective Action program. The four reports (Quarterly Progress Report No. 3, 4, 5 and 6) submitted in accordance with Section VI (18b) of the RACER Trust's Administrative Order on Consent, Docket Number RCRA-05-2011-0024, cover the timeframe from January 1, 2012 through December 31, 2012.
- **Attachment 3** – Presents the analytical results from the Monitoring Point 003A weekly dry weather and yearly wet weather samples submitted for PCB

analysis, as well as the analytical results from Outfall 005 monthly samples submitted for PCB analysis. PCBs were not detected.

- **Attachment 4** – Presents the inspection notes from the Outfall 003/004 BaySaver separation system.

Please contact me at 517.324.5052 at your convenience if you have any questions or require further information regarding this submittal.

Sincerely,

ARCADIS US, Inc.



Christopher S. Peters, P.G.
Vice President

Copies:

Chris Black, USEPA Region 5
Grant Trigger, RACER Trust
Dave Favero, RACER Trust

Attachments:

Figure 1 – Site Location Map

Attachment 1 – Notifications of Release Summary Letters

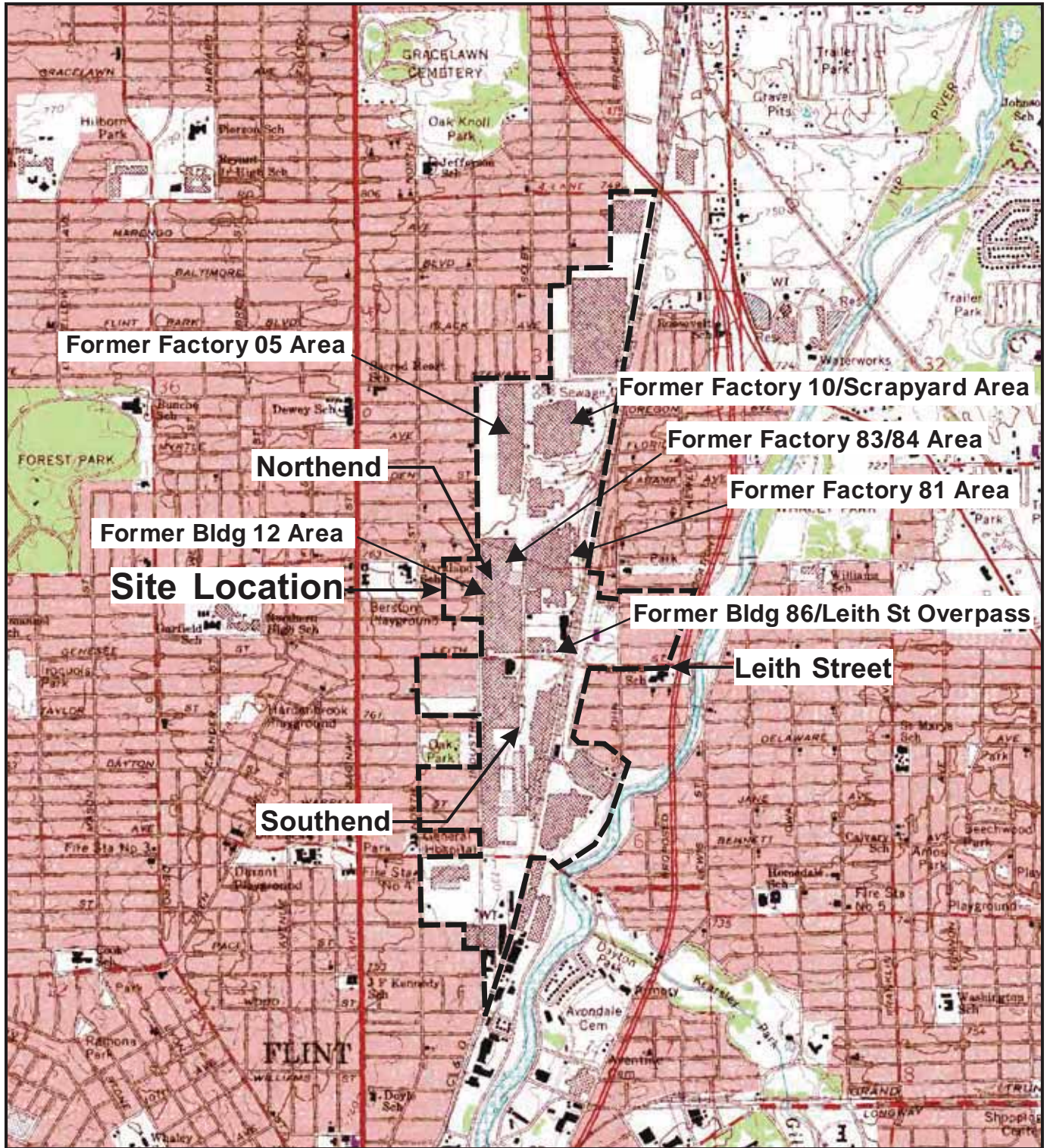
Attachment 2 - RCRA Corrective Action Program - Quarterly Progress Reports

Attachment 3 – 2012 Outfall 003 Dry and Wet Weather Storm Water Sampling
Results

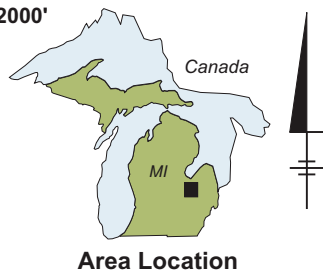
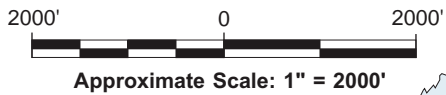
Attachment 4 – 2012 Field Inspection Notes – Outfall 003/004 BaySaver Separation
System


Figure 1

Site Location Map



REFERENCE: Base Map Source: USGS 7.5 Min. Topo. Quad., Flint North, Mich. (1969, Photorevised 1975).



RACER TRUST BUICK CITY, FLINT, MICHIGAN	
SITE LOCATION MAP	
	FIGURE 1

Attachment 1

Notifications of Release Summary
Letters



Mr. Charles Bennett
Michigan Department of Environmental Quality
Water Division, Field Operations/Lansing District
525 West Allegan Street
Lansing, Michigan 48933

and

Mr. Tom Hutchings
City of Flint
Environmental Compliance Unit
Water Pollution Control Facilities
G-4652 Beecher Road
Flint, MI 48432

Subject:

Oil Release Outfalls 002, 003, 004 and 005 – March 12, 2012
NPDES Permit Number MI0001597
Revitalizing Auto Communities Environmental Response (RACER) Trust
Buick City Site (formerly known as GM Powertrain Flint North Facility)
Flint, Michigan

Dear Messrs Bennett and Hutchings:

On behalf of the Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS reported the above referenced release on March 13, 2012 at 12:45 PM to the National Response Center (NRC), Report No. 1005599. This letter provides a follow-up summary of the reported conditions and associated corrective actions.

At approximately 1:00 PM on March 12, 2012, Mr. Tom Hutchings of the City of Flint Environmental Compliance Unit (ECU) notified ARCADIS that ECU staff had observed a release from Outfalls 002, 003, 004 and 005 at the Buick City Site (formerly known as the GM – Powertrain Flint North) located in Flint, Michigan. The ARCADIS Operations Monitoring and Maintenance technician was immediately notified to inspect the outfalls from the Buick City Site. The technician carefully inspected and documented conditions at Outfalls 002, 003, 004 and 005 at approximately 2:00 PM on March 12, 2012 and again on the following morning,

ARCADIS
10559 Citation Drive
Suite 100
Brighton
Michigan 48116
Tel 810.229.8594
Fax 810.229.8837
www.arcadis-us.com

ENVIRONMENT

Date:
March 15, 2012

Contact:
Micki M. Maki

Phone:
248.994.2271

Email:
Micki.Maki@arcadis-us.com

Our ref:
B0064410.4012.00103

March 13, 2012 at 8:00 AM. There were no indications of sheen observed outside of the containment booms at the time of either inspection.

At approximately 10:15 AM on March 13, 2012 Mr. Hutchings provided photographs of the suspected release collected by ECU staff via electronic mail to ARCADIS. Based on ECU photographs Ms. Bethany Nanzer of ARCADIS, on behalf of RACER Trust, contacted the NRC to report a release to the Flint River observed near outfalls 002, 003, 004 and 005 on March 13, 2012 at 12:45 PM. Following the notification call to the NRC, Ms. Nanzer contacted Mr. Chuck Bennett of the Michigan Department of Environmental Quality (MDEQ) and Mr. Hutchings at 12:50 PM and 1:00 PM, respectively. Mr. Bennett and Mr. Hutchings were notified of the call made to the NRC as well as the report number and the outfall maintenance event scheduled to be performed on March 14, 2012.

ARCADIS believes that the release at Outfalls 002, 003, and 005 was likely caused by an increase in outfall flow rates due to recent rain events causing migration of the contained sheen to crest over the booms. In addition the river water level was recently lowered which could have resulted in the possible release of the contained sheen. The sheen identified at Outfall 004 was likely sheen from Outfall 002 or 003, which had migrated downstream. The dry weather flow and first flush of stormwater from Outfall 004 is diverted to the Outfall 003/004 Treatment system and is discharged through Outfall 003. At the time of ARCADIS' inspection on March 12, 2012 there was no discharge from Outfall 004. However, as ARCADIS was unable to observe the sheens and evaluate the flow from Outfall 004 at that time, it was conservatively assumed that the sheen came from Outfall 004. Prior to the release an outfall maintenance event was scheduled for March 14, 2012. ARCADIS will proceed as planned with the scheduled event. Maintenance will include changing out the booms and removing accumulated debris and sheens from within the boom areas. ARCADIS and RACER Trust will continue to perform daily inspections at these outfalls and respond appropriately as required.

Should you have any questions regarding the information presented above, please feel free to contact me at 248.994.2271.

Sincerely,

ARCADIS

A handwritten signature in blue ink that reads "Micki M. Maki".

Micki M. Maki
Project Manager

Copies:

Chris Black, USEPA
Grant Trigger, RACER Trust
Dave Favero, RACER Trust
Chris Peters, ARCADIS



Mr. Charles Bennett
Michigan Department of Environmental Quality
Water Division, Field Operations/Lansing District
525 West Allegan Street
Lansing, Michigan 48933

and

Mr. Tom Hutchings
City of Flint
Environmental Compliance Unit
Water Pollution Control Facilities
G-4652 Beecher Road
Flint, MI 48432

Subject:

Oil Release Outfall 002 – July 3, 2012
NPDES Permit Number MI0001597
Revitalizing Auto Communities Environmental Response (RACER) Trust
Buick City Site (formerly known as GM Powertrain Flint North Facility)
Flint, Michigan

Dear Messrs Bennett and Hutchings:

On behalf of the Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS reported the above referenced release on July 3, 2012 at 4:25 PM to the National Response Center (NRC), Report No. 1016632. This letter provides a follow-up summary of the reported conditions and associated corrective actions.

At approximately 12:00 PM on July 3, 2012, ARCADIS, in response to a rain event, inspected the outfalls at the Buick City Site (formerly known as the GM – Powertrain Flint North) located in Flint, Michigan. ARCADIS observed a release from Outfall 002. A minimal amount of sheen was observed outside of the containment boom at the time of the inspection.

Ms. Bethany Nanzer of ARCADIS, on behalf of RACER Trust, contacted the NRC to report a release to the Flint River observed near Outfall 002 on July 3, 2012 at 4:25 PM. Following the notification call to the NRC, Ms. Nanzer contacted Mr. Chuck Bennett of the Michigan Department of Environmental Quality (MDEQ) and Mr. Hutchings at 4:35 PM and 4:40 PM, respectively. Mr. Bennett and Mr. Hutchings

ARCADIS G&M of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241
www.arcadis-us.com

Environmental

Date:
July 6, 2012

Contact:
Chris Peters

Phone:
810.225.1905

Email:
Chris.peters@arcadis-us.com

Our ref:
B0064410.4012.00103

Messrs Bennett and
Hutchings
July 6, 2012

were notified of the call made to the NRC as well as the report number and the outfall maintenance being performed in response to the release.

There was a significant rain event the morning of ARCADIS' inspection on July 3, 2012. ARCADIS believes that the release at Outfall 002 was likely caused by the existing low river water level and high storm output resulting in a gap in the containment boom allowing migration of the contaminated material. Upon observation of the release, outfall maintenance was immediately performed and containment booms were adjusted based on lower elevation. Maintenance included changing out the booms and removing accumulated debris and sheens from the boom area. ARCADIS and RACER Trust will continue to perform inspections at the outfalls and respond appropriately as required.

Should you have any questions regarding the information presented above, please feel free to contact me at 248.994.2271.

Sincerely,

ARCADIS G&M of Michigan, LLC

A handwritten signature in black ink, appearing to read "Chris Peters". The signature is fluid and cursive, with a horizontal line extending from the end.

Chris Peters
Vice President

Copies:

Chris Black, USEPA
Grant Trigger, RACER Trust
Dave Favero, RACER Trust
Mick Maki, ARCADIS



Mr. Charles Bennett
Michigan Department of Environmental Quality
Water Division, Field Operations/Lansing District
525 West Allegan Street
Lansing, Michigan 48933

and

Mr. Tom Hutchings
City of Flint
Environmental Compliance Unit
Water Pollution Control Facilities
G-4652 Beecher Road
Flint, MI 48432

Subject:

Oil Release Outfalls 002 and 003 – July 19, 2012
NPDES Permit Number MI0001597
Revitalizing Auto Communities Environmental Response (RACER) Trust
Buick City Site (formerly known as GM Powertrain Flint North Facility)
Flint, Michigan

Dear Messrs Bennett and Hutchings:

On behalf of the Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS reported the above referenced release on July 19, 2012 at 12:00 PM to the National Response Center (NRC), Report No. 1018262. This letter provides a follow-up summary of the reported conditions and associated corrective actions.

At approximately 7:30 AM on July 19, 2012, ARCADIS inspected the outfalls at the Buick City Site (formerly known as the GM – Powertrain Flint North) located in Flint, Michigan. ARCADIS observed a release from Outfalls 002 and 003. An approximate 2 foot by 10 foot rainbow colored sheen was observed outside of the boom located at Outfall 002 and an approximate 6 foot diameter circle of rainbow colored sheen and emulsified oil was observed outside of the boom located at Outfall 003.

Ms. Bethany Nanzer of ARCADIS, on behalf of RACER Trust, contacted the NRC to report a release to the Flint River observed near Outfalls 002 and 003 on July 19, 2012 at 12:00 PM. Following the notification call to the NRC, Ms. Nanzer contacted

Imagine the result

C:\Users\BNanzer\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Outlook\IWHK1013\Buick City Outfall 002 and 003 Release Notification Letter 071912.doc

ARCADIS G&M of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241
www.arcadis-us.com

Environmental

Date:
July 20, 2012

Contact:
Chris Peters

Phone:
810.225.1905

Email:
Chris.peters@arcadis-us.com

Our ref:
B0064410.4012.00103

Mr. Chuck Bennett of the Michigan Department of Environmental Quality (MDEQ) and Mr. Hutchings at 12:10 PM and 12:15 PM, respectively. Mr. Bennett and Mr. Hutchings were notified of the call made to the NRC as well as the report number and the outfall maintenance being performed in response to the release.

ARCADIS performed an outfall inspection on Monday July 16, 2012, the booms were in place and there were no concerns at that time. ARCADIS inspected and observed a release from Outfalls 002 and 003 on July 19, 2012. During the inspection the booms were in place and working as designed. ARCADIS believes that the release at Outfalls 002 and 003, observed on July 19, 2012, were likely caused by the high stormwater flow flushing out the sewer during a rain event which occurred the previous day. Upon observation of the release, outfall maintenance was immediately performed. Maintenance included changing out the booms and removing accumulated debris and sheens from the boom area as well as outside the boom area. ARCADIS and RACER Trust will continue to perform inspections at the outfalls and respond appropriately as required.

Should you have any questions regarding the information presented above, please feel free to contact me at 810.225.1905.

Sincerely,

ARCADIS G&M of Michigan, LLC



Christopher S. Peters, P.G.
Vice President

Copies:

Chris Black, USEPA
Grant Trigger, RACER Trust
Dave Favero, RACER Trust
Mick Maki, ARCADIS

Attachment 2

RCRA Corrective Action Program -
Quarterly Progress Reports

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

Subject:
Quarterly Progress Report No. 3
Revitalizing Auto Communities Environmental Response (RACER) Trust
Buick City Site, Flint, Michigan

Dear Mr. Black:

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this Quarterly Progress Report No. 3 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 Quarterly Progress Report No. 3 covers the period of January 1, 2012 through March 31, 2012.

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

ARCADIS
10559 Citation Drive
Suite 100
Brighton
Michigan 48116
Tel 810.229.8594
Fax 810.229.8837
www.arcadis-us.com

ENVIRONMENT

Date:
April 13, 2012

Contact:
Christopher S. Peters,
P.G.

Phone:
810.225.1905

Email:
chris.peters@arcadis-us.com

Our ref:
B0064410.4012

1. Data Collected This Quarter

Attachment 1 provides sample locations, sampling dates, and associated analytes for each of the samples collected during this quarter. This data will be presented to the EPA in the 2012 Annual Corrective Measures Implementation (CMI) Report, except as noted below.

1.1 Solid Samples

On January 23, 2012 through January 25, 2012 soil and concrete samples were collected from waste management units (WMU) #2, #7, #8, and #10 to characterize the soil. These soil samples were submitted for analysis of F-Scan VOCs, F-Scan SVOCs, 1,1,2 Trichloroethane, 1,2,2, Trichloroethane, Dichlorofluoromethane, Total Solids, and Methanol. Solid sample data for WMUs activities were included in Closure Reports, which were submitted to the MDEQ on April 2, 2012. A copy of these documents were also provided to the EPA.

On March 21, 2012 samples were collected from absorbent booms in onsite manholes 3-51 and 3-65 for characterization. These samples were submitted for analysis of total PCBs.

1.2 Storm Sewer Water Samples

In January, February, and March ARCADIS conducted the "NPDES Plus" Monitoring Program (NPMP) as described in the CMI Work Plan. The NPMP consists of collecting monthly samples from the 11 Site storm sewers to monitor groundwater infiltrating into the Site storm sewers. The following 11 monitoring points were sampled as access allowed: MP001, MP002, MP003, MP004, MP005, MP006, MP007, MP009, MP010, MP011, and MP013.

From January to March 2012, 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. The samples were submitted to the laboratory for analysis of total PCBs. This data will be included in the 2012 Yearly Pollutant Minimization Plan (PMP) for PCBs report, which will be submitted to the MDEQ as required in the NPDES permit.

2. Work Performed This Quarter

2.1 Routine Work

Task 1 Outfall 003/004 Oil Removal Systems

- Continued operations, maintenance, and monitoring (OMM) activities on the 003/004 system. 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 2 LNAPL Investigation

- Completed evaluation of the first quarter transmissivity data.
- Completed the second quarter transmissivity testing at select monitoring wells.
- Began evaluation of the second quarter transmissivity data.
- Completed first quarter sampling event for natural source zone depletion (NSZD) investigation. Samples have been submitted for laboratory analysis.

Task 6 Maintain Booms on Outfalls

- Performed daily inspections of Outfalls 002, 003, 004, and 005.
- Performed inspections of Oil Interceptor #2.

Task 8 NPDES PLUS Monitoring

- Completed the monthly NPDES Plus Monitoring events for January, February, and March. Samples collected as part of this program are listed in Attachment 1.

Task 9 RCRA Closures, Well Abandonment, Restrictive Covenants, Resolve UST Issues

- Completed the weekly inspections of the former RCRA waste management units (WMU).

Task 10 Maintain Select Surface Covers

- Performed the quarterly inspection of surface cover areas in March 2011.

Task 11 Lead Soil Removal

- Continued to coordinate with CSX to complete an access agreement needed to complete remediation activities.

Task 12 Agency Coordination/Negotiation, Reporting, Project Management

- Participated in regulatory agency calls regarding the Northend Statement of Basis and the AOI 09-B MPE System Endpoints .
- Submitted RACER Quarterly Progress Report No. 2 to the EPA on January 13, 2012.

Task 13 Outfall 002/005 Oil Minimization & Investigation

- Continued inspections of booms placed in Outfall 002 and 005.

General Regulatory Compliance Tasks

- Completed inspections and weekly NPDES sampling at MP003A. Samples collected are listed in Attachment 1.
- Performed quarterly inspections of the P-traps.

2.2 Non - Routine Work

Task 2 LNAPL Investigation

- Completed preparation of laser-induced fluorescence (LIF) investigation report which was submitted to the EPA on April 2, 2012 as part of the 2011 CMI Report.
- Completed installation of sampling ports and carbon traps for NSZD investigation.
- Continued boom study investigation along Outfall 003 storm sewer system and began evaluating options for addressing oil infiltration.
- Completed field evaluation of the Building 23 tunnel for path forward determination.

Task 3 LNAPL Recovery Bench and Field-Scale Testing

- Completed bench-scale testing and submitted the Bench-Scale Testing Report to EPA on March 9, 2012.

Task 6 Maintain Booms on Outfalls

- Evaluated oil removal options for Oil Interceptor #2.
- Performed outfall cleaning and maintenance activities; which includes pumping the outfalls and replacing the absorbent booms, as needed.
- Performed cleaning event at Oil Interceptor #2, which included changing out the absorbent booms, collecting accumulated debris, and disposal of waste.
- Reported a release to the MDEQ, City of Flint and National Response Center (NRC) from Outfalls 002, 003, 004, and 005 on March 13, 2012. The NRC report number for this release is 1005599. A representative from the City of Flint notified ARCADIS that a release was identified at the outfalls. The ARCADIS OMM technician immediately proceeded to the outfalls and no sheen was noted outside of the containment areas or in the river at that time. The release at the outfalls was thought to be caused by an increase in outfall flow rates due to recent rain events causing migration of the contained sheen to crest over the booms. In addition the river water level was recently lowered which could have resulted in the possible release of the contained sheen. An outfall maintenance event which included changing out the booms and removing accumulated debris and sheens from within the boom areas was completed on March 14, 2012.

Task 7 Enhanced Groundwater Monitoring

- Finalized reporting of the results of the 2011 annual sampling event, which were submitted to the EPA on April 2, 2012 as part of the 2011 CMI Report.

Task 9 RCRA Closures, Well Abandonment, Restrictive Covenants, Resolve UST Issues

- Completed field sampling events at WMU #2, WMU #7, WMU #8, and WMU #10.

- Completed data evaluation and report preparation for WMU # 2, WMU #4, WMU #5, WMU #6, WMU #7, WMU #8, and WMU #10. The Northend Certification of Closure Report and the Southend Certification of Closure Reports were submitted to the MDEQ on April 2, 2012.
- Abandoned three monitoring wells (RW-4, 20-146, and 20-606) located in the former Factory 10 basement. A memo summarizing the well abandonment activities was submitted to the EPA on March 14, 2012.

Task 10 Maintain Select Surface Covers

- Began preparation of work plan to install select surface covers at the Southend of the Site.

Task 12 Agency Coordination/Negotiation, Reporting, Project Management

- Completed preparation of the draft 2011 CMI Annual Report, which was submitted to the EPA on April 2, 2012.
- Completed AOI 09-B MPE System Endpoints Memo and submitted to the EPA on February 29, 2012. On March 6, 2012 a conference call with EPA, RACER and ARCADIS was held to discuss the proposed endpoints. The EPA concurred that it would be acceptable to use an asymptotic curve to determine when to end system operations.

Task 13 Outfall 002/005 Oil Minimization & Investigation

- Completed boom study at Outfalls 002 and 004.
- Performing a survey of Outfall 002 drainage area and evaluated surface flow.
- Evaluated data collected from Outfalls 002 and 005 and began design of corrective measures and work plan preparation.

Task 14 Address 15 Areas of Subsurface LNAPL

- Coordinated construction effort to install AOI 09-B system. Activities included: coordination with Consumers Energy for installation of gas and electrical utilities; reviewing draft air permit and providing comment to the MDEQ; coordinating with the City of Flint to have the draft sanitary sewer permit discharge permit issued; developed construction

bid documents: conducted bid walk and reviewed/evaluated bids;
completed review of treatment system shop drawings.

3. Problems Encountered

In October 2011 one of the recovery wells for the AOI 09-B system was vandalized. Based on the materials that were found around the well (wood, screws, metal caps, empty containers, etc) there are concerns about connecting this well to the AOI 09-B MPE system. If a piece of wood or a screw were pulled into the treatment system it could cause extensive damage. We have evaluated the options regarding this well and recommend using this well as an SVE well. No water would be pumped from this recovery well, thus minimizing the risk of debris being pulled into and damaging the treatment system. Prior to connecting the well to the system the well will be pumped to remove as much material as possible from the well in order to further minimize the chance of the MPE system being damaged. The recovery well will be evaluated during system startup and shakedown and can be abandoned and re-installed at a later date if deemed necessary.

Also, in January 2012, during installation of the NSZD gas sampling ports subsurface obstructions were encountered at multiple locations, thus rendering installation with the direct push equipment unproductive. The event was halted until a roto sonic drilling rig could be brought onsite to complete the installation.

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

4.1 Routine Work

Task 1 Outfall 003/004 Oil Removal Systems

- Continue OMM inspections of system.

Task 2 LNAPL Investigation

- Continue quarterly transmissivity study and data evaluation.
- Continue quarterly NSZD study and data evaluation.

Task 6 Maintain Booms on Outfalls

- Continue daily inspections of Outfalls 002, 003, 004, and 005, and Oil Interceptor #2.

Task 8 NPDES PLUS Monitoring

- Perform NPMP monitoring in April, May, and June.

Task 10 Maintain Select Surface Covers

- Perform quarterly inspection of surface cover.

Task 11 Lead Soil Removal

- Continue to pursue access agreement with CSX to enable soil removal to occur.

Task 12 Agency Coordination/Negotiation, Reporting, Project Management

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

Task 13 Outfall 002/005 Oil Minimization & Investigation

- Continue inspections of booms placed in Outfall 002 and 005 manholes.

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

- Begin OM&M phase of AOI 09-B LNAPL remediation system.

4.2 Non-Routine Work

Task 2 LNAPL Investigation

- Continue Outfall 003 boom investigation to identify sources of LNAPL infiltration into network.
- Begin planning for the 2012 LIF event.

Task 9 RCRA Closures, Well Abandonment, Restrictive Covenants, Resolve UST Issues

- Finalize and record restrictive covenants for the Southend of the Site.
- Coordinate with MDEQ to transfer open LUST issues to RCRA Corrective Action.

Task 10 Maintain Select Surface Covers

- Select and install additional cover as required in the Southend of the Site.

Task 11 Lead Soil Removal

- Complete lead soil removal work plan and RFP and begin bidding process.

Task 13 Outfall 002/005 Oil Minimization & Investigation

- Develop work plan for final corrective measures for Outfall 002 and 005 storm sewers and begin implementation.

Task 14 Address 15 Areas of Subsurface LNAPL

- Complete construction and installation of AOI 09-B LNAPL remediation system.
- Begin startup and shakedown of AOI-9B LNAPL remediation system.

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 – 75%
- Outfall 003 boom study – 15%
- Natural Source Zone Depletion Study – 25%
- Transmissivity Testing – 25%

Task 3 LNAPL Recovery Bench and Field-Scale Testing

- LNAPL Bench Scale Testing – 100%
- LNAPL Pilot Scale Testing – 33%

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 – 95%
- Southend RCRA WMU Closures – 95%
- Northend Restrictive Covenant – 0%
- Southend Restrictive Covenant – 80%
- Monitoring Well Abandonments – 1%
- UST Issue Resolution – Pending MDEQ review and approval of transfer to RCRA Corrective Action process

Task 10 Maintain Select Surface Covers

- Maintain Select Surface Covers – Ongoing
- Installation of Additional Surface Cover – Southend – 10%

Task 11 Lead Soil Removal

- Lead Soil Removal – 5%

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 Sitewide Groundwater - 100%
- Revised CMP Addendum No. 2-1 – Response to EPA Comments - 100%

Task 13 Outfall 002/005 Oil Minimization & Investigation

- Outfall 002 Evaluation - 90%
- Outfall 005 Evaluation – 85%
- Outfall 002 Final Measure Implementation– 0%
- Outfall 005 Final Measure Implementation – 0%

Task 14 Address 15 Areas of Subsurface LNAPL

- Address 15 Areas of LNAPL – 3%
 - AOI 09-B System Design – 100%
 - AOI 09-B Permitting – 85%
 - AOI 09-B System Construction – 25%

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

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

If you have any questions, please call me.

Sincerely,
ARCADIS



Christopher S. Peters, P.G.
Vice President



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 – Sample Summary for January 1, 2012 to March 31, 2012

ATTACHMENT 1

REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST
 BUICK CITY SITE
 SAMPLE SUMMARY FOR JANUARY 1, 2012 TO MARCH 31, 2012

Matrix: Soil Samples (RCRA Soil Samples - Waste Management Units [WMU] #2, #7, #8, and #10)			
Location-ID	Field Sample ID	Date Sampled	Analyses
WMU #2	WMU2_SB1_01232012 (3'-3.5')	01/23/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol F-scan SVOCs, Total Solids,
WMU #7	WMU7_SB1_01232012 (15.5-16')	01/23/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol F-scan SVOCs, Total Solids,
WMU #7	WMU7_SB2_01232012 (14.5-15')	01/23/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol F-scan SVOCs, Total Solids,
WMU #7	WMU7_SB3_01242012 (15.5-16')	01/24/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol F-scan SVOCs, Total Solids,
WMU #8	WMU8_SB1_01242012 (2-2.8')	01/24/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol F-scan SVOCs, Total Solids,
WMU #8	WMU8_SB2_01242012 (1.5-2')	01/24/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol F-scan SVOCs, Total Solids,
WMU #8	WMU8_SB3_01242012 (3.5-4')	01/24/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol F-scan SVOCs, Total Solids,
WMU #8	WMU8_SB4_01242012 (1.2-1.7')	01/24/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol F-scan SVOCs, Total Solids,
WMU #8	WMU8_SB5_01242012 (4.2-5')	01/24/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol F-scan SVOCs, Total Solids,
WMU #10	WMU10_SB1_01242012 (17.2-17.7')	01/24/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol F-scan SVOCs, Total Solids, Ignitability, Lead,
WMU #10	WMU10_SB2_01242012 (16-16.5')	01/24/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol F-scan SVOCs, Total Solids, Ignitability, Lead,
WMU #10	WMU10_SB3_01242012 (15.5-16')	01/24/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol F-scan SVOCs, Total Solids, Ignitability, Lead,
WMU #10	WMU10_SB5_01242012 (18.5-19')	01/25/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol F-scan SVOCs, Total Solids, Ignitability, Lead,
WMU #10	WMU10_SB1A_01242012 (16-16.5')	01/24/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol F-scan SVOCs, Total Solids, Ignitability, Lead,
WMU #10	WMU10_SB2C_01242012 (13-13.5')	01/24/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol F-scan SVOCs, Total Solids, Ignitability, Lead,
WMU #10	WMU10_SB3C_01242012 (12.5-13')	01/24/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol F-scan SVOCs, Total Solids, Ignitability, Lead,
WMU #10	WMU10_SB4C_01242012 (14.5-15')	01/25/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol F-scan SVOCs, Total Solids, Ignitability, Lead,
WMU #10	WMU10_SB5C_01242012 (16.5-17')	01/25/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol F-scan SVOCs, Total Solids, Ignitability, Lead,
Trip Blank	TB1_01232011	01/23/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol F-scan SVOCs, Total Solids, Ignitability, Lead,
WMU #10	WMU10_SB4A_01252012 (17-17.5')	01/25/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol F-scan SVOCs, Total Solids,
WMU #2	WMU2_SB3_01262012	01/25/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol VOCs
Trip Blank	Tripblank2_01252012	01/25/2012	
Trip Blank	Tripblank_01252012	01/25/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol, F-scan SVOCs, total Solids, Ignitability, Lead
WMU #10	WMU10_SB6_01252012	01/25/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol, F-scan SVOCs, total Solids, Ignitability, Lead
WMU #10	WMU10_SB6A_01252012	01/25/2012	Fscan VOCs plus 1,1,2 Trichloro 1,2,2 Trifluoroethane and dichlorodifluoromethane, Methanol, F-scan SVOCs, total Solids, Ignitability, Lead
Matrix: Solid Samples (Absorbent Boom Samples - Manhole 3-51 and 3-65)			
Location-ID	Field Sample ID	Date Sampled	Analyses
MH 3-51	Boom 3-51	3/21/2012	Total PCB
MH 3-65	Boom 3-65	3/21/2012	Total PCB

ATTACHMENT 1

REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST
BUICK CITY SITE
SAMPLE SUMMARY FOR JANUARY 1, 2012 TO MARCH 31, 2012

Matrix: Storm Sewer Water (Monthly "NPDES Plus" Monitoring Program [NPMP] Sampling)			
Location-ID	Field Sample ID	Date Sampled	Analyses
MH 1-3	MP001_01032012	01/03/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 2-19	MP002_01032012	01/03/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 1-3	MP002_01032012 MS	01/03/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 2-19	MP002_01032012 MSD	01/03/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 3-3	MP003_01032012	01/03/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 5-6	MP005_01032012	01/03/2012	Low Level Total Mercury, Total Metals*, TSS, Cyanide
MH 6-2	MP006_01032012	01/03/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
Outfall 007	MP007_01032012	01/03/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 11-7	MP009_01032012	01/03/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 10-5	MP010_01032012	01/03/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 13-6	MP013_01032012	01/03/2012	Low Level Total Mercury, Total Metals*, TSS, Cyanide
MH 11-7	Dup001_01032012	01/03/2012	Total Metals*, TSS, VOCs, Cyanide
Field Blank	Field_Blank_01032012	01/03/2012	Low Level Total Mercury, Total Metals*, VOCs, Cyanide
Equipment Blank	Equip_Blank_01032012	01/03/2012	Low Level Total Mercury, Total Metals*, VOCs, Cyanide
Trip Blank	Trip_Blank_01032012	01/03/2012	Low Level Total Mercury, VOCs
MH 5-6	MP005-C_01062012	01/06/2012	PCB
Equipment Blank	ISCO_Blank_01062012	01/06/2012	PCB
MH 1-3	MP001_02062012	2/6/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 2-19	MP002_02062012	2/6/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 3-3	MP003_02062012	2/6/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 5-6	MP005_02062012	2/6/2012	Low Level Total Mercury, Total Metals*, TSS, Cyanide
MH 6-2	MP006_02062012	2/6/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
Outfall 007	MP007_02062012	2/6/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 11-7	MP009_02062012	2/6/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 10-5	MP010_02062012	2/6/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 10-5	MP010_02062012 MS	2/6/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 10-5	MP010_02062012 MSD	2/6/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 13-6	MP013_02062012	2/6/2012	Low Level Total Mercury, Total Metals*, TSS, Cyanide
MH 6-2	Dup001_02062012	2/6/2012	Total Metals*, TSS, VOCs, Cyanide
Field Blank	Field_Blank_02062012	2/6/2012	Low Level Total Mercury, Total Metals*, VOCs, Cyanide
Equipment Blank	Equip_Blank_02062012	2/6/2012	Low Level Total Mercury, Total Metals*, VOCs, Cyanide
Trip Blank	Trip_Blank_02062012	2/6/2012	Low Level Total Mercury, VOCs
MH 5-6	MP005-C_02082012	2/8/2012	PCB
Equipment Blank	ISCO_Blank_02082012	2/8/2012	PCB
MH 1-3	MP001_03222012	3/22/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 2-19	MP002_03222012	3/22/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 3-3	MP003_03222012	3/22/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 5-6	MP005_03222012	3/22/2012	Low Level Total Mercury, Total Metals*, TSS, Cyanide
MH 6-2	MP006_03222012	3/22/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
Outfall 007	MP007_03222012	3/22/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 11-7	MP009_03222012	3/22/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 11-7	MP009_03222012 MS	3/22/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 11-7	MP009_03222012 MSD	3/22/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 10-5	MP010_03222012	3/22/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide
MH 13-6	MP013_03222012	3/22/2012	Low Level Total Mercury, Total Metals*, TSS, Cyanide
MH 10-5	Dup001_03222012	3/22/2012	Total Metals*, TSS, VOCs, Cyanide
Field Blank	Field_Blank_03222012	3/22/2012	Low Level Total Mercury, Total Metals*, VOCs, Cyanide
Equipment Blank	Equip_Blank_03222012	3/22/2012	Low Level Total Mercury, Total Metals*, VOCs, Cyanide
Trip Blank	Trip_Blank_03222012	3/22/2012	Low Level Total Mercury, VOCs
MH 5-6	MP005-C_03282012	3/28/2012	PCB
Equipment Blank	ISCO_Blank_03282012	3/28/2012	PCB

Matrix: Storm Sewer Water (NPDES Sampling)			
Location-ID	Field Sample ID	Date Sampled	Analyses
MH 3-3	MP003A_01052012	1/5/2012	Total PCBs
Equipment Blank	ISCO Blank_01052012	1/5/2012	Total PCBs
MH 3-3	Outfall003A_01112012	1/11/2012	Total PCBs
MH 3-3	Outfall003A_011912	1/19/2012	Total PCBs
MH 3-3	Outfall003A_01252012	1/25/2012	Total PCBs
MH 3-3	Outfall003A_01312012	1/31/2012	Total PCBs
MH 3-3	MP003A_02072012	2/7/2012	Total PCBs
Equipment Blank	ISCO Blank_02072012	2/7/2012	Total PCBs
MH 3-3	Outfall003A_02152012	2/15/2012	Total PCBs
MH 3-3	Outfall003A_02242012	2/24/2012	Total PCBs
MH 3-3	Outfall003A_02292012	2/29/2012	Total PCBs
MH 3-3	Outfall003A_03072012	3/7/2012	Total PCBs
MH 3-3	Outfall003A_03162012	3/16/2012	Total PCBs
MH 3-3	Outfall003A_03212012	3/21/2012	Total PCBs
MH 3-3	MP003A_03272012	3/27/2012	Total PCBs
Equipment Blank	ISCO_Blank_03272012	3/27/2012	Total PCBs

Notes:

- NAV Not Available
- NA Not Applicable
- * Metals analyzed for include: Ag, As, Ba, Be, Cd, Co, Cr, Cu, Fe, Mn, Ni, Pb, Sb, Se, Ti, V, and Zn.
- VOCs Volatile Organic Compounds
- SVOCS Semi-Volatile Organic Compounds
- PCBs Polychlorinated Biphenyls
- TSS Total Suspended Solids
- RCI Reactivity, Corrosivity, Ignitability
- None of the data this quarter required validation

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

Subject:

Second Quarter 2012 Quarterly Progress Report
Revitalizing Auto Communities Environmental Response (RACER) Trust
Buick City Site, Flint, Michigan

Dear Mr. Black:

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this Second Quarter 2012 Quarterly Progress Report 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 Second Quarter 2012 Quarterly Progress Report covers the period of April 1, 2012 through June 30, 2012.

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

ARCADIS
10559 Citation Drive
Suite 100
Brighton
Michigan 48116
Tel 810.229.8594
Fax 810.229.8837
www.arcadis-us.com

ENVIRONMENT

Date:
July 13, 2012

Contact:
Christopher S. Peters,
P.G.

Phone:
810.225.1905

Email:
chris.peters@arcadis-us.com

Our ref:
B0064410.2012

1. Data Collected This Quarter

Attachment 1 provides sample locations, sampling dates, and associated analytes for each of the samples collected during this quarter. This data will be presented to the EPA in the 2012 Annual CMI Report, except as noted below.

1.1 Storm Sewer Water Samples

In April, May, and June ARCADIS conducted the "NPDES Plus" Monitoring Program (NPMP) as described in the Corrective Measures Implementation (CMI) Work Plan. The NPMP consists of collecting monthly samples from the 11 Site storm sewers to monitor groundwater infiltrating into the Site storm sewers. The following 11 monitoring points were sampled as access allowed: MP001, MP002, MP003, MP004, MP005, MP006, MP007, MP009, MP010, MP011, and MP013. The EPA approved modified NPMP sampling program began being implemented during the June sampling event.

From April to June 2012, 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. The samples were submitted to the laboratory for analysis of total PCBs. This data will be included in the 2012 Yearly Pollutant Minimization Plan (PMP) for PCBs report, which will be submitted to the MDEQ as required in the NPDES permit.

2. Work Performed This Quarter

2.1 Routine Work

Task 1 Outfall 003/004 Oil Removal Systems

- Continued operations, maintenance, and monitoring (OMM) activities on the 003/004 system. 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

- Performed daily and precipitation triggered inspections of Outfalls 002, 003, 004, and 005. As demolition activities have been completed and no production related activities are being performed the inspection rate was changed to weekly and precipitation triggered inspections beginning June 22, 2012.
- Performed maintenance activities on an as needed basis.
- Performed inspections of Oil Interceptor #2.

Task 8 NPDES PLUS Monitoring

- Completed the monthly NPDES Plus Monitoring events for April, May, and June. Samples collected as part of this program are listed in Attachment 1.

Task 9 RCRA Closures, Well Abandonment, Restrictive Covenants, Resolve UST Issues

- Completed the weekly inspections of the former RCRA waste management units (WMU). Waste is no longer being stored at the RCRA WMUs. Closure activities have been completed in accordance with the MDEQ approved work plan and final closure reports have been submitted to the MDEQ. As such the inspections of the former WMUs were discontinued on June 6, 2012.

Task 10 Maintain Select Surface Covers

- Performed the quarterly inspection of surface cover areas in June 2012.

Task 11 Lead Soil Removal

- Completed an access agreement with CSX needed to complete remediation activities.

Task 12 Agency Coordination/Negotiation, Reporting, Project Management

- Participated in regulatory agency calls and meetings.
- Participated in calls with the EPA regarding the Northend Statement of Basis.
- Submitted RACER Quarterly Progress Report No. 3 to the EPA on April 13, 2012.

Task 13 Outfall 002/005 Oil Minimization & Investigation

- Performed quarterly inspections of the P-traps.
- Performed weekly inspection of 002 onsite manhole booms.

General Regulatory Compliance Tasks

- Completed inspections and weekly NPDES sampling at MP003A. Samples collected are listed in Attachment 1.

2.2 Non - Routine Work

Task 1 Outfall 003/004 Oil Removal Systems

- Performed HDPE pipe cleanout event including jetting of lines in response to blocked flow.

Task 2 LNAPL Investigation

- Completed evaluation of the second quarter transmissivity data.
- Completed the third quarter transmissivity investigation.
- Began evaluation of the third quarter transmissivity data.
- Completed second quarter sampling event for natural source zone depletion (NSZD) investigation. Samples have been submitted for laboratory analysis.
- Continued boom study investigation along Outfall 003 storm sewer system.
- Developed work plan for 2012 laser-induced fluorescence (LIF) event and received approval from EPA.

Task 3 LNAPL Recovery Bench and Field-Scale Testing

- Completed Bench-Scale Testing Summary Report and Response to EPA comments.
- Begin to develop testing program options for Bench scale/pilot testing of LNAPL removal technologies.

Task 8 NPDES PLUS Monitoring

- Planned upgradient sampling event for July 2012.

Task 9 RCRA Closures, Well Abandonment, Restrictive Covenants,

Resolve UST Issues

- Evaluated analytical data from samples collected at WMU #2, WMU #7, WMU #8, and WMU #10. Northend and Southend closure reports were submitted to the MDEQ on April 2, 2012.
- Completed Certification of Closure for Closure Activities at RCRA WMU's (Northend and Southend).
- Accompany Michigan Department of Environmental Quality (MDEQ) on site inspection of former hazardous waste management unit areas.
- Began developing summary memo for open leaking underground storage tanks (LUST) to submit as part of a request to transfer these areas to the RCRA corrective action program.

- Draft restrictive covenant for the Southend of the site.

Task 10 Maintain Select Surface Covers

- Developed work plan to install select surface covers at the Southend of the Site and submitted to the EPA for review.

Task 11 Lead Soil Removal

- Developed a work plan for the removal of lead and Benzo(a)pyrene impacted soils.

Task 12 Agency Coordination/Negotiation, Reporting, Project Management

- Completed 2011 Corrective Measures Implementation (CMI) Annual Report.
- Restructured site facilities with reduced security presence.
- Participated in Site Meeting with the EPA in May 2012.
- Developed LNAPL Prioritization matrix.
- Submitted budget amendment to the EPA for additional funding and investigation approvals.

Task 13 Outfall 002/005 Oil Minimization & Investigation

- Developed the Outfall 002 and 005 Bulk Head Work Plan and submitted to the EPA for review.

Task 14 Address 15 Areas of Subsurface LNAPL

- Coordinated construction effort to install AOI 09-B system including coordination with utilities, verifying permit status, completed review of treatment system shop drawings, and development of construction bid documents.
- Completed bidding process and awarded subcontract. Construction started July 9, 2012.
- Received MDEQ air permit for the Thermal Oxidizer Unit to be installed at AOI-9B.
- Received final Draft Sanitary Sewer Use permit from the City of Flint, for discharge of MPE system aqueous effluent. The City of Flint is currently finalizing the permit.

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

- Began development of AOI 09-B MPE treatment system OMM manual.

3. Problems Encountered

While coordinating the installation of the AOI 09-B MPE treatment system there have been significant delays while securing electrical service. The situation has since been resolved and installation of the system is ongoing.

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

4.1 Routine Work

Task 1 Outfall 003/004 Oil Removal Systems

- Continue OMM inspections of system.

Task 8 NPDES PLUS Monitoring

- Perform NPMP monitoring in July, August, and September.

Task 10 Maintain Select Surface Covers

- Perform quarterly inspection of surface cover.

Task 12 Agency Coordination/Negotiation, Reporting, Project Management

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

Task 13 Outfall 002/005 Oil Minimization & Investigation

- Continue inspections of booms placed in Outfall 002 and 005 manholes.
- Continue quarterly P-trap inspections.

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

- Begin OM&M phase of AOI 09-B LNAPL remediation system.

4.2 Non-Routine Work

Task 2 LNAPL Investigation

- Complete Outfall 003 boom investigation to identify sources of LNAPL infiltration into network.
- Perform third quarter of NSZD testing.
- Perform fourth quarter of transmissivity testing.
- Begin the final LIF event.
- Conduct additional investigations

Task 3 LNAPL Recovery Bench and Field-Scale Testing

- Select technologies and locations for additional LNAPL investigation activities and pilot testing.

Task 8 NPDES PLUS Monitoring

- Perform upgradient NPMP sampling.

Task 9 RCRA Closures, Well Abandonment, Restrictive Covenants, Resolve UST Issues

- Finalize and record restrictive covenant for the Southend of the Site.
- Coordinate with the EPA to transfer open LUST issues to RCRA Corrective Action.
- Complete monitoring well abandonments on CSX property.

Task 10 Maintain Select Surface Covers

- Install additional cover as required in the Southend of the Site.

Task 11 Lead Soil Removal

- Complete excavation work plan and coordinate/execute field work.

Task 12 Agency Coordination/Negotiation, Reporting, Project Management

- Work with USEPA to prepare 2013 Annual Environmental Action Budget Request.

Task 13 Outfall 002/005 Oil Minimization & Investigation

- Perform Outfall 002, 003, and 005 bulkheading activities.

Task 14 Address 15 Areas of Subsurface LNAPL

- Complete construction and installation of AOI 09-B LNAPL remediation system.
- Begin startup and shakedown of AOI-9B LNAPL remediation system.

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 – 75%
- Outfall 003 boom study – 15%
- Natural Source Zone Depletion Study – 25%
- Transmissivity Testing –50%

Task 3 LNAPL Recovery Bench and Field-Scale Testing

- LNAPL Bench Scale Testing – 95%
- LNAPL Pilot Scale Testing – 33%

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 – 0%
- UST Issue Resolution – 10%

Task 10 Maintain Select Surface Covers

- Maintain Select Surface Covers – Ongoing
- Installation of Additional Surface Cover – Southend – 10%

Task 11 Lead Soil Removal

- Lead Soil Removal – 10%

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 Sitewide Groundwater -100%
- Revised CMP Addendum No. 2-1 – Response to EPA Comments - 100%

Task 13 Outfall 002/005 Oil Minimization & Investigation

- Outfall 002 Evaluation - 100%
- Outfall 005 Evaluation – 85%
- Outfall 002 Final Measure Implementation– 0%
- Outfall 005 Final Measure Implementation – 0%

Task 14 Address 15 Areas of Subsurface LNAPL

- Address 15 Areas of LNAPL – 3%

- AOI 09-B System Design – 100%
- AOI 09-B Permitting – 100%
- AOI 09-B System Construction – 25%

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

- LNAPL Recovery OM&M – 5%
- Secondary LNAPL Remediation – 0%

If you have any questions, please call me.

Sincerely,
ARCADIS



Christopher S. Peters, P.G.
Vice President

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 – Sample Summary for April 1, 2012 to June 30, 2012

ATTACHMENT 1

REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST
 BUICK CITY SITE
 SAMPLE SUMMARY FOR APRIL 1, 2012 TO JUNE 30, 2012

Matrix: Storm Sewer Water (Monthly "NPDES Plus" Monitoring Program [NPMP] Sampling)				
Location ID	Field Sample ID	Date Sampled	Analyses	Date EDD Received
MH 1-3	MP001_04092012	4/9/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide	NAV
MH 2-19	MP002_04092012	4/9/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide	NAV
MH 3-3	MP003_04092012	4/9/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide	NAV
MH 5-6	MP005_04092012	4/9/2012	Low Level Total Mercury, Total Metals*, TSS, Cyanide	NAV
MH 6-2	MP006_04092012	4/9/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide	NAV
Outfall 007	MP007_04092012	4/9/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide	NAV
MH 11-7	MP009_04092012	4/9/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide	NAV
MH 11-7	MP009_04092012 MS	4/9/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide	NAV
MH 11-7	MP009_04092012 MSD	4/9/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide	NAV
MH 10-5	MP010_04092012	4/9/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide	NAV
MH 13-6	MP013_04092012	4/9/2012	Low Level Total Mercury, Total Metals*, TSS, Cyanide	NAV
MH 2-19	Dup001_04092012	4/9/2012	Total Metals*, TSS, VOCs, Cyanide	NAV
Field Blank	Field_Blank_04092012	4/9/2012	Low Level Total Mercury, Total Metals*, VOCs, Cyanide	NAV
Equipment Blank	Equip_Blank_04092012	4/9/2012	Low Level Total Mercury, Total Metals*, VOCs, Cyanide	NAV
Trip Blank	Trip_Blank_04092012	4/9/2012	VOCs	NAV
Outfall 011	MP011_04092012	4/9/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide	NAV
MH 5-6	MP005-C_04112012	4/11/2012	PCB	NAV
Equipment Blank	ISCO_Blank_04112012	4/11/2012	PCB	NAV
MH 1-3	MP001_05102012	5/10/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide	NAV
MH 2-19	MP002_05102012	5/10/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide	NAV
MH 2-19	MP002_05102012 MS	5/10/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide	NAV
MH 2-19	MP002_05102012 MSD	5/10/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide	NAV
MH 3-3	MP003_05102012	5/10/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide	NAV
MH 5-6	MP005_05102012	5/10/2012	Low Level Total Mercury, Total Metals*, TSS, Cyanide	NAV
MH 6-2	MP006_05102012	5/10/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide	NAV
Outfall 007	MP007_05102012	5/10/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide	NAV
MH 11-7	MP009_05102012	5/10/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide	NAV
MH 10-5	MP010_05102012	5/10/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide	NAV
MH 13-6	MP013_05102012	5/10/2012	Low Level Total Mercury, Total Metals*, TSS, Cyanide	NAV
MH 10-5	DUP001_05102012	5/10/2012	Total Metals*, TSS, VOCs, Cyanide	NAV
Field Blank	Field_Blank_05102012	5/10/2012	Low Level Total Mercury, Total Metals*, VOCs, Cyanide	NAV
Equipment Blank	Equip_Blank_05102012	5/10/2012	Low Level Total Mercury, Total Metals*, VOCs, Cyanide	NAV
Trip Blank	Trip_Blank_05102012	5/10/2012	VOCs	NAV
MH 5-6	MP005-C_05162012	5/16/2012	PCB	NAV
Equipment Blank	ISCO_Blank_05162012	5/16/2012	PCB	NAV
MH 1-3	MP001_06042012	6/4/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide	NAV
MH 2-19	MP002_06042012	6/4/2012	Low Level Total Mercury, Metals (Ag, As, Cr, Cu and Se), TSS, Cyanide	NAV
MH 3-3	MP003_06042012	6/4/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide	NAV
MH 3-3	MP003_06042012 MS	6/4/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide	NAV
MH 3-3	MP003_06042012 MSD	6/4/2012	Low Level Total Mercury, Total Metals*, TSS, VOCs, Cyanide	NAV
MH 5-6	MP005_06042012	6/4/2012	Low Level Total Mercury, Metals (Ag, As, Cu, Mn, Pb, Zn), TSS	NAV
MH 6-2	MP006_06042012	6/4/2012	Low Level Total Mercury, Metals (As, Pb), TSS	NAV
Outfall 007	MP007_06042012	6/4/2012	Low Level Total Mercury, Metals (Cr, Pb), TSS	NAV
MH 3-3	Dup001_06042012	6/4/2012	Total Metals*, TSS, VOCs, Cyanide	NAV
Field Blank	Field_Blank_06042012	6/4/2012	Low Level Total Mercury, Total Metals*, VOCs, Cyanide	NAV
Equipment Blank	Equip_Blank_06042012	6/4/2012	Low Level Total Mercury, Total Metals*, VOCs, Cyanide	NAV
Trip Blank	Trip_Blank_06042012	6/4/2012	VOCs	NAV
MH 11-7	MP009_06042012	6/4/2012	Low Level Total Mercury, Metals (As, Cd, Cr, Cu, Mn, Pb, V, Zn), TSS, Cyanide	NAV
MH 10-5	MP010_06042012	6/4/2012	Low Level Total Mercury, Metals (As, Cd, Cr, Cu, Mn, Ni, Pb, V, Zn), TSS, Cyanide	NAV
MH 13-6	MP013_06042012	6/4/2012	Low Level Total Mercury, Metals (As, Cr, Cu, Pb, Zn), TSS, Cyanide	NAV
MH 5-6	MP005-C_06062012	6/6/2012	PCB	NAV
Equipment Blank	ISCO_Blank_06062012	6/6/2012	PCB	NAV

ATTACHMENT 1

REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST
 BUICK CITY SITE
 SAMPLE SUMMARY FOR APRIL 1, 2012 TO JUNE 30, 2012

Matrix: Storm Sewer (NPDES Sampling)				
Location ID	Field Sample ID	Date Sampled	Analyses	Date EDD Received
MH 3-3	Outfall003A_04052012	4/5/2012	Total PCBs	NAV
MH 3-3	MP003A_04102012	4/10/2012	Total PCBs	NAV
Equipment Blank	ISCO_Blank_04102012	4/10/2012	Total PCBs	NAV
MH 3-3	Outfall0003A_04192012	4/19/2012	Total PCBs	NAV
MH 3-3	Outfall003A_04242012	4/24/2012	Total PCBs	NAV
MH 3-3	Outfall003A_05032012	5/3/2012	Total PCBs	NAV
MH 3-3	Outfall003A_05092012	5/9/2012	Total PCBs	NAV
MH 3-3	MP003A_05152012	5/15/2012	Total PCBs	NAV
Equipment Blank	ISCO_Blank_05152012	5/15/2012	Total PCBs	NAV
MH 3-3	Outfall003A_05232012	5/23/2012	Total PCBs	NAV
MH 3-3	Outfall003A_05312012	5/31/2012	Total PCBs	NAV
MH 3-3	MP003A_06052012	6/5/2012	Total PCBs	NAV
Equipment Blank	ISCO_BLANK_06052012	6/5/2012	Total PCBs	NAV
MH 3-3	Outfall003A_06142012	6/14/2012	Total PCBs	NAV
MH 3-3	Outfall003A_06202012	6/20/2012	Total PCBs	NAV
MH 3-3	Outfall003A_06272012	6/27/2012	Total PCBs	NAV

Notes:

- NAV Not Available
- NA Not Applicable
- * Metals analyzed for include: Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Ni, Pb, Sb, Se, Ti, V, and Zn.
- VOCs Volatile Organic Compounds
- SVOCs Semi-Volatile Organic Compounds
- PCBs Polychlorinated Biphenyls
- TSS Total Suspended Solids
- RCI Reactivity, Corrosivity, Ignitability

ARCADIS
10559 Citation Drive
Suite 100
Brighton
Michigan 48116
Tel 810.229.8594
Fax 810.229.8837
www.arcadis-us.com

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

ENVIRONMENT

Subject:
Third Quarter 2012 Progress Report (No. 5)
Revitalizing Auto Communities Environmental Response (RACER) Trust
Buick City Site, Flint, Michigan

Date:
October 8, 2012

Dear Mr. Black:

Contact:
Christopher S. Peters,
P.G.

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this Third Quarter 2012 Progress Report (No. 5) 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.

Phone:
810.225.1905
Email:
chris.peters@arcadis-us.com

Our ref:
B0064410.2012

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 Third Quarter 2012 Progress Report (No. 5) covers the period of July 1, 2012 through September 30, 2012.

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 2012 Annual CMI Report, except as noted below.

1.1 Storm Sewer Water Samples

In July, August and September ARCADIS conducted the “NPDES Plus” Monitoring Program (NPMP) as described in the 2011 Annual Corrective Measures Implementation (CMI) Report. The NPMP consists of collecting monthly samples from the 11 Site storm sewers to monitor groundwater infiltrating into the Site storm sewers. The following 11 monitoring points were sampled as access allowed: MP001, MP002, MP003, MP004, MP005, MP006, MP007, MP009, MP010, MP011, and MP013. In addition, during the July event samples were collected from upgradient manholes: MH 3-25-2, MH 3-31, MH 3-51, and MH 4-21.

From July to September 2012, 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. The samples were submitted to the laboratory for analysis of total PCBs. This data will be included in the 2012 Yearly Pollutant Minimization Plan (PMP) for PCBs report, which will be submitted to the MDEQ as required in the NPDES permit.

1.2 Soil Samples

In September ARCADIS collected soil samples as part of the former Factory 31 Basement Investigation. Soil samples were collected from three boring locations and submitted for laboratory analysis of volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). This data will be submitted in a brief memo report.

In September ARCADIS collected soil samples as part of the AOI 83/84-3 Lead Soil Investigation. Soil samples were collected from five boring locations and submitted for laboratory analysis of lead. Samples will be collected from the remaining seven boring locations in October. This data will be submitted in a brief memo report.

In September ARCADIS collected soil samples as part of the Waste Management Unit (WMU) #3 Investigation. Soil samples were collected from three boring locations

and submitted for laboratory analysis of VOCs. This data will be submitted in a brief memo report.

1.3 Air Samples

In September ARCADIS collected air samples as part of the natural source zone depletion (NSZD) study. Air samples were collected 13 samples from seven locations and submitted for laboratory analysis of oxygen, carbon dioxide, methane, diesel range organics (DRO) and gasoline range organics (GRO). This data will either be submitted in a brief memo report or as part of the 2012 Annual CMI Report, depending on when the final results are received.

2. Work Performed This Quarter

Attachment 1 presents the monthly Site progress reports for July, August and September which document the work performed this quarter.

3. Problems Encountered

While coordinating the installation of the AOI 09-B MPE treatment system there have been significant delays while securing natural gas service. The system has been installed; however, it cannot be operated until the gas service has been connected.

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

4.1 Routine Work

Task 1 Outfall 003/004 Oil Removal Systems

- Continue OMM inspections of system.
- Complete annual cleaning and maintenance of system.

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 performed inspections of Oil Interceptor #2.

Task 7 Enhanced Groundwater Monitoring

- Complete annual sampling event.

Task 8 NPDES PLUS Monitoring

- Perform NPMP monitoring in October, November, and December.

Task 10 Maintain Select Surface Covers

- Perform quarterly inspection of surface cover.

Task 12 Agency Coordination/Negotiation, Reporting, Project Management

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

Task 13 Outfall 002/005 Oil Minimization & Investigation

- Continue inspections of booms placed in Outfall 002 and 005 manholes.
- Continue quarterly P-trap inspections.

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

- Begin OM&M phase of AOI 09-B LNAPL remediation system.

4.2 Non-Routine Work

Task 2 LNAPL Investigation

- Complete laser induced fluorescence (LIF) investigation at the Site.
- Complete fourth quarter of natural source zone depletion (NSZD) field work.
- Prepare memos summarizing the results of Transmissivity Study, former Factory 31 Basement Investigation, and AOI 83/84-3 Lead Soil Investigation.

Task 3 LNAPL Recovery Bench and Field-Scale Testing

- Complete evaluation of available Site data and select methods and locations for additional LNAPL investigation and pilot testing.

Task 9 RCRA Closures, Well Abandonment, Restrictive Covenants, Resolve UST Issues

- Prepare memo summarizing the results of the WMU #3 Investigation.
- Coordinate with the EPA and MDEQ to transfer open LUST issues to RCRA Corrective Action.
- Complete monitoring well abandonments on CSX property.

Task 10 Maintain Select Surface Covers

- Install additional cover as required in the Southend of the Site.

Task 11 Lead Soil Removal

- Finalize work plan and submit for approval by EPA and CSX.
- Coordinate and execute lead soil removal activities.

Task 13 Outfall 002/005 Oil Minimization & Investigation

- Complete bulkhead activities along the Outfall 002, 003, and 005 storm sewers.

Task 14 Address 15 Areas of Subsurface LNAPL

- Conduct startup and shakedown of AOI-9B LNAPL remediation system.

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 – 90%
- Outfall 003 boom study – 85%
- Natural Source Zone Depletion Study – 75%
- Transmissivity Testing –95%

Task 3 LNAPL Recovery Bench and Field-Scale Testing

- LNAPL Bench Scale Testing – 95%
- LNAPL Pilot Scale Testing – 33%

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 – 0%
- UST Issue Resolution – 10%

Task 10 Maintain Select Surface Covers

- Maintain Select Surface Covers – Ongoing
- Installation of Additional Surface Cover – Southend – 10%

Task 11 Lead Soil Removal

- Lead Soil Removal – 10%

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 Sitewide Groundwater - 100%
- Revised CMP Addendum No. 2-1 – Response to EPA Comments - 100%

Task 13 Outfall 002/005 Oil Minimization & Investigation

- Outfall 002 Evaluation - 100%
- Outfall 005 Evaluation – 100%
- Outfall 002 Final Measure Implementation– 0%
- Outfall 003 Final measure Implementation – 0%
- Outfall 005 Final Measure Implementation – 0%

Task 14 Address 15 Areas of Subsurface LNAPL

- Address 15 Areas of LNAPL – 3%
 - AOI 09-B System Design – 100%
 - AOI 09-B Permitting – 100%
 - AOI 09-B System Construction – 90%

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

- LNAPL Recovery OM&M – 5%
- Secondary LNAPL Remediation – 0%

6. Budget Status

- 2012 Budget – An evaluation of remaining budgets is being completed to determine if a budget amendment may be necessary to complete the installation of the select surface covers at the Southend of the Site under Task 10 – Select Surface Covers.



- 2013 Budget – The 2013 Budget Request is currently being prepared and will be submitted for EPA review and approval during the 4th quarter of 2012.

If you have any questions, please call me.

Sincerely,
ARCADIS

A handwritten signature in black ink, appearing to read "Chris S. Peters". The signature is fluid and cursive.

Christopher S. Peters, P.G.
Vice President

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 – July 2012 Project Update - RACER Buick City Site
Attachment 2 – August 2012 Project Update - RACER Buick City Site
Attachment 3 – September 2012 Project Update - RACER Buick City Site



ARCADIS G&M of Michigan, LLC
10559 Citation Drive
Suite 100
Brighton
Michigan 48116
Tel 810 229 8594
Fax 810 229 8837

MEMO

To:
Chris Black, USEPA

Copies:
Grant Trigger, RACER
Dave Favero, RACER
Micki Maki, ARCADIS

From:
Christopher S. Peters

Date:
August 16, 2012

ARCADIS Project No.:
B0064410.2012

Subject:
July 2012 Project Update - RACER Buick City Site, Flint, Michigan

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this July 2012 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from July 1, 2012 through July 31, 2012.

Task 1 - Outfall 003/004 Oil Removal Systems

Routine Work

- Continued operations, maintenance, and monitoring (OMM) activities on the 003/004 system. 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.

Non - Routine Work

- Procured bids for annual system maintenance and cleanout.

Task 2 - LNAPL Investigation

Routine Work

- No work performed.

Non - Routine Work

- Began preparation for laser-induced fluorescence (LIF) investigation including: developing request for proposals (RFPs) for LIF investigation, concrete coring, and utility clearance; selecting subcontractors; and scheduling field activities.
- Completed boom study investigation along Outfall 003 storm sewer system.
- Profiled waste generated as part of the transmissivity events.
- Reviewed second quarter sampling data for natural source zone depletion (NSZD) investigation.

Task 3 - LNAPL Recovery Bench and Field-Scale Testing

Routine Work

- No work performed.

Non - Routine Work

- Continued evaluating existing site information to select technologies for pilot scale testing at Site LNAPL plumes.

Task 4 - Operate Fact. 10 LNAPL/GW System

- Task Completed.

Task 5 - Operate Fact. 36 LNAPL/GW System

- Task Completed.

Task 6 - Maintain Booms on Outfalls

Routine Work

- Performed inspections and maintenance (as necessary) of Outfalls 002, 003, 004, and 005.
- Performed inspections of Oil Interceptor #2.

Non - Routine Work

- Provide revised outfall inspection notification to the MDEQ.
- Reported releases to the MDEQ, City of Flint, and national Response Center (NRC) from Outfall 002 on July 3, 2012 and Outfalls 002 and 003 on July 19, 2012. The NRC report numbers for these releases are 1016632 and 1018262, respectively. Excessive flow from storm water events flushed over/under the boom system causing limited releases due to low water levels in river.

Task 7 - Enhanced Groundwater Monitoring

Routine Work

- No work performed.

Non - Routine Work

- No work performed.

Task 8 - NPDES PLUS Monitoring

Routine Work

- Completed the monthly NPDES Plus Monitoring event for July.

Non - Routine Work

- Perform sampling of upgradient onsite locations associated with the NPDES Plus Monitoring.

Task 9 - RCRA Closures, Well Abandonment, Restrictive Covenants, Resolve UST Issues

Routine Work

- No work performed.

Non - Routine Work

- Discussed status of the Northend and Southend WMU Closure reports with MDEQ. The MDEQ indicated that the reports were still under review.

Task 10 – Maintain Select Surface Covers

Routine Work

- No work performed.

Non - Routine Work

- No work Performed.

Task 11 - Lead Soil Removal

Routine Work

- No work performed.

Non - Routine Work

- Drafted AOI 09-A Soil Removal Work Plan.

Task 12 - Agency Coordination/Negotiation, Reporting, Project Management

Routine Work

- Participated in Site Progress Meeting with the EPA.
- Prepared Quarterly EPA update memo.

Non - Routine Work

- Updated LNAPL Prioritization tables for use in planning site activities.
- Prepared response to City of Flint regarding requested City Water Main alignment issue.
- Prepared cost for installation of specialized bolts to increase security of onsite monitoring wells.

Task 13 - Outfall 002/005 Oil Minimization & Investigation

Routine Work

- Not Applicable.

Non - Routine Work

- No work performed.

Task 14 - Address 15 Areas of Subsurface LNAPL

Routine Work

- Not Applicable.

Non - Routine Work

- Begin the onsite construction of the AOI 09-B MPE treatment system.
- Receive final Sanitary Sewer Use permit from the City of Flint.

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

Routine Work

- Not Applicable.

Non - Routine Work

- Develop OMM manual for the AOI 09-B MPE Treatment System.



ARCADIS G&M of Michigan, LLC
10559 Citation Drive
Suite 100
Brighton
Michigan 48116
Tel 810 229 8594
Fax 810 229 8837

MEMO

To:
Chris Black, USEPA

Copies:
Grant Trigger, RACER
Dave Favero, RACER
Micki Maki, ARCADIS

From:
Christopher S. Peters

Date:
October 8, 2012

ARCADIS Project No.:
B0064410.2012

Subject:
August 2012 Project Update - RACER Buick City Site, Flint, Michigan

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this August 2012 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from August 1, 2012 through August 31, 2012.

Task 1 - Outfall 003/004 Oil Removal Systems

Routine Work

- Continued operations, maintenance, and monitoring (OMM) activities on the 003/004 system. 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.

Non - Routine Work

- Procured and reviewed bids for annual system maintenance and cleanout.

Task 2 - LNAPL Investigation

Routine Work

- No work performed.

Non - Routine Work

- Prepared for laser-induced fluorescence (LIF) investigation including:
 - Requested bids, responded to bidder questions, evaluated bids and secured subcontractor to perform work.
 - Complete CSX notification as required per access agreements.
 - Finalize figures and locations for event.
 - Coordinate specific training for technicians, geologists, and contractors to complete work.
- Began working on Factory 31 basement work plan and scheduling.
- Completed boom study investigation along Outfall 003 storm sewer system and reviewed Outfall 003 boom study data. Performed reduced boom inspection program. Disposed of associated waste.
- Prepared summary of second quarter sampling data for natural source zone depletion (NSZD) investigation for internal review.
- Coordinate/schedule September transmissivity testing event.

Task 3 - LNAPL Recovery Bench and Field-Scale Testing

Routine Work

- No work performed.

Non - Routine Work

- No work performed.

Task 4 - Operate Fact. 10 LNAPL/GW System

- Task Completed.

Task 5 - Operate Fact. 36 LNAPL/GW System

- Task Completed.

Task 6 - Maintain Booms on Outfalls

Routine Work

- Performed inspections and maintenance (as necessary) of Outfalls 002, 003, 004, and 005.
- Performed inspections of Oil Interceptor #2.

- Coordinated waste disposal of debris generated as part of Outfall cleanings.

Non - Routine Work

- Coordinated cleaning event for Oil Interceptor #2.
- Requested and reviewed bids to perform the cleaning of the 003/004 system.
- Prepared outfall inspection flow charts.

Task 7 - Enhanced Groundwater Monitoring

Routine Work

- No work performed.

Non - Routine Work

- No work performed.

Task 8 - NPDES PLUS Monitoring

Routine Work

- Completed the monthly NPDES Plus Monitoring event for August. Prepared for September NPDES Plus Monitoring event.

Non - Routine Work

- Discussed mercury analysis with laboratory (reducing qualifiers with laboratory).

Task 9 - RCRA Closures, Well Abandonment, Restrictive Covenants, Resolve UST Issues

Routine Work

- No work performed.

Non - Routine Work

- Discussed status of the Northend and Southend WMU Closure reports with MDEQ. The MDEQ indicated that the reports were still under review.
- Began WMU #3 sample planning and scheduling.
- Began well abandonment planning for select wells to be abandoned on CSX property.

Task 10 – Maintain Select Surface Covers

Routine Work

- No work performed.

Non - Routine Work

- No work Performed.

Task 11 - Lead Soil Removal

Routine Work

- No work performed.

Non - Routine Work

- Finalized AOI 09-A Soil Removal Work Plan for Client review.
- Completed review of soil removal cost estimate.

Task 12 - Agency Coordination/Negotiation, Reporting, Project Management

Routine Work

- Participated in Site Progress Meeting with the EPA.
- Prepared Monthly EPA update memo.

Non - Routine Work

- Updated LNAPL Prioritization tables for use in planning site activities.
- Completed field health and safety review.
- Began 2013 budget planning.
- Develop response to City of Flint proposed water main alignment.

Task 13 - Outfall 002/005 Oil Minimization & Investigation

Routine Work

- Not Applicable.

Non - Routine Work

- Coordinated disposal of booms as part of the boom 002/005 boom study.

Task 14 - Address 15 Areas of Subsurface LNAPL

Routine Work

- Not Applicable.

Non - Routine Work

- Continued the onsite construction of the AOI 09-B MPE treatment system.

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

Routine Work

- Not Applicable.

Non - Routine Work

- Developed a draft OMM manual for the AOI-09-B Treatment system OMM plan.
- Coordinated sample collection for product pre-characterization.



ARCADIS G&M of Michigan, LLC
10559 Citation Drive
Suite 100
Brighton
Michigan 48116
Tel 810 229 8594
Fax 810 229 8837

MEMO

To:
Chris Black, USEPA

Copies:
Grant Trigger, RACER
Dave Favero, RACER
Micki Maki, ARCADIS

From:
Christopher S. Peters

Date:
October 8, 2012

ARCADIS Project No.:
B0064410.2012

Subject:
September 2012 Project Update - RACER Buick City Site, Flint, Michigan

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this September 2012 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from September 1, 2012 through September 30, 2012.

Task 1 - Outfall 003/004 Oil Removal Systems

Routine Work

- Continued operations, maintenance, and monitoring (OMM) activities on the 003/004 system. 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.

Non - Routine Work

- Perform HDPE pipe cleanout event due to blockage in the HDPE line between the diversion structure and the Bayseparator

Task 2 - LNAPL Investigation

Routine Work

- No work performed.

Non - Routine Work

- Performed laser-induced fluorescence (LIF) investigation at 85 locations located in both the Northend and Southend of the property. This work included performing real time analysis of the data to determine step out boring locations, as needed. Please note that we anticipate completing 1 -2 additional days of LIF work this year to complete delineation at the Site.
- Maintained absorbent booms at several onsite manholes along the Outfall 003 storm sewer system.
- Completed final quarter of the Transmissivity Study.
- Completed third quarter of the Natural Source Zone Depletion (NSZD) Study.
- Completed the soil borings for the former Factory 31 basement investigation.
- Began the AOI 83/84-3 Lead Soil Investigation including concrete coring and completing sample collection from six boring locations.

Task 3 - LNAPL Recovery Bench and Field-Scale Testing

Routine Work

- No work performed.

Non - Routine Work

- Began reviewing available site data for use in recommending rationale for pilot scale testing.
- Began evaluation of the impacted plumes for application of high temperature technology.

Task 4 - Operate Fact. 10 LNAPL/GW System

- Task Completed.

Task 5 - Operate Fact. 36 LNAPL/GW System

- Task Completed.

Task 6 - Maintain Booms on Outfalls

Routine Work

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

Non - Routine Work

- Developed outfall inspection flow chart to aid in identifying sources of product and potential system issues.
- Conducted cleaning event at Oil Interceptor #2.

Task 7 - Enhanced Groundwater Monitoring

Routine Work

- No work performed.

Non - Routine Work

- Began coordinating with adjacent property owners for access to complete the annual groundwater sampling event.
- Began planning for the 2012 annual groundwater monitoring event.

Task 8 - NPDES PLUS Monitoring

Routine Work

- Completed the monthly NPDES Plus Monitoring event for September.

Non - Routine Work

- No work performed.

Task 9 - RCRA Closures, Well Abandonment, Restrictive Covenants, Resolve UST Issues

Routine Work

- No work performed.

Non - Routine Work

- Discussed status of the Northend and Southend WMU Closure reports with MDEQ. The MDEQ indicated that the reports were still under review.
- Completed WMU #3 sampling event.
- Continued well abandonment planning for non-active wells on CSX property planning.

Task 10 – Maintain Select Surface Covers

Routine Work

- Performed select surface cover inspections.

Non - Routine Work

- Finalized select surface cover work plan and respond to EPA comments.

Task 11 - Lead Soil Removal

Routine Work

- No work performed.

Non - Routine Work

- Finalized draft of AOI 09-A Soil Removal Work Plan for client review.
- Finalized Northern Parcel work plan and submitted to EPA for approval. Began coordinating sampling event.

Task 12 - Agency Coordination/Negotiation, Reporting, Project Management

Routine Work

- Participated in Site Progress Meeting with the EPA.
- Prepared Monthly EPA update memo.

Non - Routine Work

- Attended EPA status meeting.
- Developed 2013 budget and scopes of work.
- Attended meeting with the City of Flint to discuss points of contact, permitting, and security issues.

Task 13 - Outfall 002/005 Oil Minimization & Investigation

Routine Work

- Not Applicable.

Non - Routine Work

- Continued inspections of absorbent booms in onsite manholes of the Outfall 002 storm sewer system.
- Completed Outfall 003 bulkheading addendum to the Outfall 002 / 005 bulkheading work plan.

Task 14 - Address 15 Areas of Subsurface LNAPL

Routine Work

- Not Applicable.

Non - Routine Work

- Continued construction of the AOI 09-B MPE treatment system.

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

Routine Work

- Not Applicable.

Non - Routine Work

- Address gas line installation issues with Consumers Energy.
- Coordinate purchase of OMM materials and set up utility accounts.

ARCADIS
10559 Citation Drive
Suite 100
Brighton
Michigan 48116
Tel 810.229.8594
Fax 810.229.8837
www.arcadis-us.com

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

ENVIRONMENT

Subject:
Fourth Quarter 2012 Progress Report (No. 6)
Revitalizing Auto Communities Environmental Response (RACER) Trust
Buick City Site, Flint, Michigan

Date:
January 11, 2013

Contact:
Micki M. Maki, P.E.

Dear Mr. Black:

Phone:
810.225.1905

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this Fourth Quarter 2012 Progress Report (No. 6) 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.

Email:
[Micki Maki@arcadis-us.com](mailto:Micki.Maki@arcadis-us.com)

Our ref:
B0064410.2012

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 Fourth Quarter 2012 Progress Report (No. 6) covers the period of October 1, 2012 through December 31, 2012.

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 2012 Annual CMI Report, except as noted below.

1.1 Storm Sewer Water Samples

In October, November, and December ARCADIS conducted the “NPDES Plus” Monitoring Program (NPMP) as described in the 2011 Annual Corrective Measures Implementation (CMI) Report. The NPMP consists of collecting monthly samples from the 11 Site storm sewers to monitor groundwater infiltrating into the Site storm sewers. The following 11 monitoring points were sampled as access allowed: MP001, MP002, MP003, MP004, MP005, MP006, MP007, MP009, MP010, MP011, and MP013.

From October to December 2012, 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. The samples were submitted to the laboratory for analysis of total PCBs. This data will be included in the 2012 Yearly Pollutant Minimization Plan (PMP) for PCBs report, which will be submitted to the MDEQ as required in the NPDES permit.

1.2 Soil Samples

In October ARCADIS collected soil samples as part of the Northern Parcel Investigation. Soil samples were collected from eight boring locations and submitted for laboratory analysis of volatile organic compounds (VOCs), semi-volatiles organic compounds (SVOCs), Metals, and PCBs. This data will be submitted in a brief memo report.

In December ARCADIS collected soil samples as part of the AOI 29 surface cover Investigation. Soil samples were collected from four boring locations and submitted for laboratory analysis of lead. This data will be submitted in a brief memo report.

1.3 Groundwater Samples

In October ARCADIS collected groundwater samples as part of the Northern Parcel Investigation. Groundwater samples were collected from five wells and submitted for

laboratory analysis of VOCs, SVOCs, Metals, and PCBs. This data will be submitted in a brief memo report.

In November ARCADIS conducted the Annual Groundwater Monitoring Event as described in the 2011 Annual Corrective Measures Implementation (CMI) Report. Groundwater samples were collected from 50 monitoring wells and submitted for laboratory analysis of laboratory analysis of VOCs, select Metals, and/or PCBs.

2. Work Performed This Quarter

Attachments 1, 2, and 3 present the monthly Site progress reports for October, November, and December which document the work performed this quarter.

3. Problems Encountered

While coordinating the installation of the AOI 09-B MPE treatment system there have been significant delays while securing natural gas service. The system has been installed; however, it cannot be operated until the gas service has been connected and temperatures return above freezing.

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

4.1 Routine Work

Task 1 Outfall 003/004 Oil Removal Systems

- Continue OMM inspections of system.

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 performed inspections of Oil Interceptor #2.

Task 8 NPDES PLUS Monitoring

- Perform NPMP monitoring in January, February, and March.

Task 10 Maintain Select Surface Covers

- Perform quarterly inspection of surface cover.

Task 12 Agency Coordination/Negotiation, Reporting, Project Management

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

Task 13 Outfall 002/005 Oil Minimization & Investigation

- Continue inspections of booms placed in Outfall 002 and 005 manholes.
- Continue quarterly P-trap inspections.

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

- Begin OM&M phase of AOI 09-B LNAPL remediation system.

4.2 Non-Routine Work

Task 2 LNAPL Investigation

- Collection of samples to provide additional LNAPL characterization information.
- Finalize memos summarizing the results of Transmissivity Study, former Factory 31 Basement Investigation, and AOI 83/84-3 Lead Soil Investigation.

Task 3 LNAPL Recovery Bench and Field-Scale Testing

- Complete evaluation of Site data to aid in selecting methods and locations for additional LNAPL pilot testing.
- Develop a matrix of remedial alternatives and costs for LNAPL areas and meet with EPA to review.

Task 8 NPDES PLUS Monitoring

- Perform upgradient and downgradient sampling in association of the February NPMP monitoring event.

Task 9 RCRA Closures, Well Abandonment, Restrictive Covenants, Resolve UST Issues

- Prepare memo summarizing the results of the WMU #3 Investigation.
- Coordinate with the EPA and MDEQ to transfer open LUST issues to RCRA Corrective Action.

Task 10 Maintain Select Surface Covers

- Sample and characterize the AOI 09-B soil pile.
- Install additional cover as required.

Task 11 Lead Soil Removal

- Coordinate lead soil removal activities.

Task 13 Outfall 002/005 Oil Minimization & Investigation

- Complete bulkhead activities along the Outfall 002, 003, 005 and 007 storm sewers.
- Complete evaluation of possible re-routing options for Outfall 004 storm sewer.

Task 14 Address 15 Areas of Subsurface LNAPL

- Conduct startup and shakedown of AOI-9B LNAPL remediation system.

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%
- Outfall 003 boom study – 85%
- Southend Natural Source Zone Depletion Study – 75%
- Southend Transmissivity Testing – 100%

Task 3 LNAPL Recovery Bench and Field-Scale Testing

- LNAPL Bench Scale Testing – 100%
- LNAPL Pilot Scale Testing – 33%

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 – 10%

Task 10 Maintain Select Surface Covers

- Maintain Select Surface Covers – Ongoing
- Installation of Additional Surface Cover – Southend – 15%

Task 11 Lead Soil Removal

- Lead Soil Removal – 15%

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 Sitewide Groundwater - 100%
- Revised CMP Addendum No. 2-1 – Response to EPA Comments - 100%

Task 13 Outfall 002/005 Oil Minimization & Investigation

- Outfall 002 Evaluation - 100%
- Outfall 005 Evaluation – 100%
- Outfall 002 Final Measure Implementation– 10%
- Outfall 003 Final measure Implementation – 5%
- Outfall 005 Final Measure Implementation – 10%

Task 14 Address 15 Areas of Subsurface LNAPL

- Address 15 Areas of LNAPL – 7%
 - AOI 09-B System Design – 100%
 - AOI 09-B Permitting – 100%
 - AOI 09-B System Construction – 95%

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

- LNAPL Recovery OM&M – 5%
- Secondary LNAPL Remediation – 0%

6. Budget Status

- 2013 Budget – The 2013 Budget Request has been approved by the EPA.

If you have any questions, please call me.

Sincerely,
ARCADIS

A handwritten signature in blue ink that reads "Micki M. Maki".

Micki Maki, P.E.
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 – October 2012 Project Update - RACER Buick City Site
Attachment 2 – November 2012 Project Update - RACER Buick City Site
Attachment 3 – December 2012 Project Update - RACER Buick City Site



Attachment 1

October 2012 Project Update
RACER Buick City Site
Flint, Michigan



ARCADIS G&M of Michigan, LLC
10559 Citation Drive
Suite 100
Brighton
Michigan 48116
Tel 810 229 8594
Fax 810 229 8837

MEMO

To:
Chris Black, USEPA

Copies:
Grant Trigger, RACER
Dave Favero, RACER
Micki Maki, ARCADIS

From:
Chris Peters

Date:
November 14, 2012

ARCADIS Project No.:
B0064410.2012

Subject:
October 2012 Project Update - RACER Buick City Site, Flint, Michigan

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this October 2012 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from October 1, 2012 through October 31, 2012.

Task 1 - Outfall 003/004 Oil Removal Systems

Routine Work

- Continued operations, maintenance, and monitoring (OMM) activities on the 003/004 system. 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.

Non - Routine Work

- Plan and schedule system annual maintenance and cleanout.

Task 2 - LNAPL Investigation

Routine Work

- No work performed.

Non - Routine Work

- Coordinated final LIF investigation of step out locations to be completed November 1 - 2, 2012.
- Maintained absorbent booms at several onsite manholes along the Outfall 003 storm sewer system.
- Began preparing a draft memo summarizing the results of the Transmissivity Study data.
- Completed third quarter of the Natural Source Zone Depletion (NSZD) Study.
- Completed the soil borings for the former Factory 31 basement investigation and began evaluation of analytical data.
- Completed the AOI 83/84-3 Lead Soil Investigation and began evaluation of analytical data.

Task 3 - LNAPL Recovery Bench and Field-Scale Testing

Routine Work

- No work performed.

Non - Routine Work

- No work performed.

Task 4 - Operate Fact. 10 LNAPL/GW System

- Task Completed.

Task 5 - Operate Fact. 36 LNAPL/GW System

- Task Completed.

Task 6 - Maintain Booms on Outfalls

Routine Work

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

Non - Routine Work

- No work performed.

Task 7 - Enhanced Groundwater Monitoring

Routine Work

- Continued coordinating with adjacent property owners for access to complete the annual groundwater sampling event. RACER is currently working with DuPont to obtain access.
- Completed monitoring well repairs, installation, and development in preparation of the annual groundwater sampling event.
- Submitted a memo to the EPA documenting the modifications to the annual groundwater monitoring event based on the monitoring wells that were lost as a result of demolition activities.
- Continued planning for the 2012 annual groundwater monitoring event. This event is scheduled to be completed in November.

Non - Routine Work

- No work performed.

Task 8 - NPDES PLUS Monitoring

Routine Work

- Completed the monthly NPDES Plus Monitoring event for October.

Non - Routine Work

- Began evaluation of GSI criteria and potential sampling reduction.

Task 9 - RCRA Closures, Well Abandonment, Restrictive Covenants, Resolve UST Issues

Routine Work

- No work performed.

Non - Routine Work

- Discussed status of the Northend and Southend WMU Closure reports with MDEQ. The MDEQ indicated that the reports were still under review.
- Began reviewing the WMU #3 analytical data.

Task 10 – Maintain Select Surface Covers

Routine Work

- Performed quarterly select surface cover inspections.

Non - Routine Work

- Finalized Select Surface Cover Work Plan and responded to EPA comments on the Work Plan.
- Developed options for 2012/2013 implementation of the select surface cover plan.

Task 11 - Lead Soil Removal

Routine Work

- No work performed.

Non - Routine Work

- AOI 09-A Soil Removal Work Plan was submitted to CSX and EPA for review.
- Completed Northern Parcel sampling event and began review of analytical data.

Task 12 - Agency Coordination/Negotiation, Reporting, Project Management

Routine Work

- Prepared Monthly EPA update memo.

Non - Routine Work

- Continued development of 2013 budget and scopes of work.
- Completed quarterly invoice certification.
- Met with MDEQ personnel onsite for NPDES/Stormwater inspection.

Task 13 - Outfall 002/005 Oil Minimization & Investigation

Routine Work

- Not Applicable.

Non - Routine Work

- Continued inspections of absorbent booms in onsite manholes of the Outfall 002 storm sewer system.
- Drafted Addendum #1 to the Outfall 002/005 Bulkheading Work Plan.
- Met with the City of Flint to address water lines and storm sewers issues onsite.

Task 14 - Address 15 Areas of Subsurface LNAPL

Routine Work

- Not Applicable.

Non - Routine Work

- Completed construction of the AOI 09-B MPE treatment system.

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

Routine Work

- Not Applicable.

Non - Routine Work

- Continued to address gas line installation issues with Consumers Energy.
- Coordinated start-up of the treatment system. Due to issues with natural gas connection, only a 'soft' startup of the system has been completed. During the start-up the system and all of the connections were inspected. The technician for the thermal oxidizer identified that Consumers Energy had installed the wrong reducer for the natural gas line and that there was not sufficient gas to start-up the system. The system will not be able to be started until the Consumers Energy installs the proper reducer for the natural gas line.



Attachment 2

November 2012 Project Update
RACER Buick City Site
Flint, Michigan



ARCADIS G&M of Michigan, LLC
10559 Citation Drive
Suite 100
Brighton
Michigan 48116
Tel 810 229 8594
Fax 810 229 8837

MEMO

To:
Chris Black, USEPA

Copies:
Grant Trigger, RACER
Dave Favero, RACER
Micki Maki, ARCADIS

From:
Chris Peters

Date:
December 14, 2012

ARCADIS Project No.:
B0064410.2012

Subject:
November 2012 Project Update - RACER Buick City Site, Flint, Michigan

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this November 2012 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from November 1, 2012 through November 30, 2012.

Task 1 - Outfall 003/004 Oil Removal Systems

Routine Work

- Continued operations, maintenance, and monitoring (OMM) activities on the 003/004 system. 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.

Non - Routine Work

- Perform maintenance event on the BaySeparator system.
- Began performing maintenance of the Outfall 003/004 oil/water separator. Upon entering the oil/water separator a large quantity of solids were encountered. Maintenance was halted, while characterization, profiling, and disposal of this additional waste stream could be completed.

Task 2 - LNAPL Investigation

Routine Work

- No work performed.

Non - Routine Work

- Completed final LIF investigation of step out locations.
- Maintained absorbent booms at several onsite manholes along the Outfall 003 storm sewer system.
- Began preparing a draft memo summarizing the results of the Transmissivity Study data.
- Completed evaluation of the Factory 31 basement investigation analytical data and began drafting a memo outlining the results.
- Completed evaluation of the AOI 83/84-3 Lead Soil Investigation analytical data and began drafting a memo outlining the results.

Task 3 - LNAPL Recovery Bench and Field-Scale Testing

Routine Work

- No work performed.

Non - Routine Work

- Reviewed data and developed options for pilot testing/ remediation solutions for AOI's. Identify additional data needs.

Task 4 - Operate Fact. 10 LNAPL/GW System

- Task Completed.

Task 5 - Operate Fact. 36 LNAPL/GW System

- Task Completed.

Task 6 - Maintain Booms on Outfalls

Routine Work

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

Non - Routine Work

- No work performed.

Task 7 - Enhanced Groundwater Monitoring

Routine Work

- Completed the 2012 Annual Groundwater Monitoring event.
- Installed tamper resistant bolts at wells included in the annual sampling program, where possible.
- Evaluated repairs to surface completions at wells in the annual sampling program which could not be secured using tamper resistant bolts.

Non - Routine Work

- No work performed.

Task 8 - NPDES PLUS Monitoring

Routine Work

- Completed the monthly NPDES Plus Monitoring event for November.

Non - Routine Work

- Continued evaluation of GSI criteria and potential sampling reduction.

Task 9 - RCRA Closures, Well Abandonment, Restrictive Covenants, Resolve UST Issues

Routine Work

- No work performed.

Non - Routine Work

- Discussed status of the Northend and Southend WMU Closure reports with MDEQ. The MDEQ indicated that the reports were still under review.
- Continued drafting summary memo of 12 historic Leaking Underground Storage Tank (LUST) releases to facilitate transfer to RCRA Corrective Action.
- Completed reviewing the WMU #3 analytical data and began drafting a memo outlining the results.
- Coordinated abandonment of 10 wells on CSX property.

Task 10 – Maintain Select Surface Covers

Routine Work

- No work performed.

Non - Routine Work

- Submitted options for 2012/2013 implementation of the select surface cover plan to the EPA.

Task 11 - Lead Soil Removal

Routine Work

- No work performed.

Non - Routine Work

- Received the EPA's approval of the AOI 09-A Soil Removal Work Plan. Corresponded with CSX regarding the work plan.
- Reviewed Northern Parcel analytical data and prepared draft results memo.

Task 12 - Agency Coordination/Negotiation, Reporting, Project Management

Routine Work

- Prepared the Monthly EPA update memo.

Non - Routine Work

- Completed development of the 2013 budget and scopes of work.

Task 13 - Outfall 002/005 Oil Minimization & Investigation

Routine Work

- Not Applicable.

Non - Routine Work

- Continued inspections of absorbent booms in onsite manholes of the Outfall 002 storm sewer system.
- Drafted Addendum #1 to the Outfall 002/005 Bulkheading Work Plan.
- Met with the City of Flint to address potential Outfall 004 sewer re-route options.
- Developed options for re-routing the Outfall 004 sewer upgradient of the site. Discuss the viability of the options with the City of Flint.
- Planned initial field investigation to determine the viability of re-routing outfall 004 sewer.

Task 14 - Address 15 Areas of Subsurface LNAPL

Routine Work

- Not Applicable.

Non - Routine Work

- Not Applicable.

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

Routine Work

- Not Applicable.

Non - Routine Work

- Continued to address gas line installation issues with Consumers Energy. The system will not be able to be started until the Consumers Energy installs the proper reducer for the natural gas line.



Attachment 3

December 2012 Project Update
RACER Buick City Site
Flint, Michigan



ARCADIS G&M of Michigan, LLC
10559 Citation Drive
Suite 100
Brighton
Michigan 48116
Tel 810 229 8594
Fax 810 229 8837

MEMO

To:
Chris Black, USEPA

Copies:
Grant Trigger, RACER
Dave Favero, RACER
Chris Peters, ARCADIS

From:
Micki M. Maki

Date:
January 11, 2013

ARCADIS Project No.:
B0064410.2012

Subject:
December 2012 Project Update - RACER Buick City Site, Flint, Michigan

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this December 2012 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from December 1, 2012 through December 31, 2012.

Task 1 - Outfall 003/004 Oil Removal Systems

Routine Work

- Continued operations, maintenance, and monitoring (OMM) activities on the 003/004 system. 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.

Non - Routine Work

- Completed performing the Outfall 003/004 oil/water separator annual maintenance event. Activities including removing and disposing of collected materials; and pressure washing and inspecting the oil/water separator and coalescer plates prior to placing the system back online.

Task 2 - LNAPL Investigation

Routine Work

- No work performed.

Non - Routine Work

- Maintained absorbent booms at several onsite manholes along the Outfall 003 storm sewer system.
- Drafted memo summarizing the results of the Transmissivity Study data.
- Reviewed data and prepared a draft memo summarizing the status of the AOI 83/84-3 investigation.
- Reviewed data from the NSZD results. Due to issues at the laboratory, the third quarter results were delayed. The fourth quarter sampling event has been postponed until the data from the third quarter event is received and reviewed.
- Drafted figure showing all of the LIF boring locations.

Task 3 - LNAPL Recovery Bench and Field-Scale Testing

Routine Work

- No work performed.

Non - Routine Work

- No work performed.

Task 4 - Operate Fact. 10 LNAPL/GW System

- Task Completed.

Task 5 - Operate Fact. 36 LNAPL/GW System

- Task Completed.

Task 6 - Maintain Booms on Outfalls

Routine Work

- Performed inspections and maintenance (as necessary) of Outfalls 002, 003, 004, and 005. Dispose of waste as necessary. The inspection frequency was increased during the time that the Outfall 003/004 BaySeparator system was offline for maintenance.

- Performed inspections of Oil Interceptor #2.

Non - Routine Work

- No work performed.

Task 7 - Enhanced Groundwater Monitoring

Routine Work

- Installed tamper resistant bolts at wells included in the annual sampling program, where possible.
- Began review of compiling field data from annual groundwater monitoring event.
- Submitted notifications to offsite property owners as required by the access agreements.

Non - Routine Work

- No work performed.

Task 8 - NPDES PLUS Monitoring

Routine Work

- Completed the monthly NPDES Plus Monitoring event for December.

Non - Routine Work

- No work performed.

Task 9 - RCRA Closures, Well Abandonment, Restrictive Covenants, Resolve UST Issues

Routine Work

- No work performed.

Non - Routine Work

- Discussed status of the Northend and Southend WMU Closure reports with MDEQ. The MDEQ indicated that the reports were still under review.
- Continued drafting summary memo of 12 historic Leaking Underground Storage Tank (LUST) releases to facilitate transfer to RCRA Corrective Action.
- Completed reviewing the WMU #3 analytical data and began drafting a memo outlining the results.
- Completed the abandonment of seven monitoring wells on CSX property.

Task 10 – Maintain Select Surface Covers

Routine Work

- No work performed.

Non - Routine Work

- Performed quarterly surface cover inspections.
- Completed AOI 29-A soil boring investigation.
- Began drafting select surface cover request for proposal (RFP).
- Addressed the EPA's comments for the 2012/2013 implementation of the select surface cover plan.

Task 11 - Lead Soil Removal

Routine Work

- No work performed.

Non - Routine Work

- Began development of the AOI 09-A soil removal RFP and air monitoring plan.
- Completed Draft Northern Parcel memo and submitted to RACER for review.

Task 12 - Agency Coordination/Negotiation, Reporting, Project Management

Routine Work

- Prepared the Monthly EPA update memo.

Non - Routine Work

- Performed a health and safety audit of the site and the ongoing activities.

Task 13 - Outfall 002/005 Oil Minimization & Investigation

Routine Work

- Not Applicable.

Non - Routine Work

- Continued inspections of absorbent booms in onsite manholes of the Outfall 002 storm sewer system.

- Began investigating options for re-routing the Outfall 004 storm sewer near the upgradient Site property boundary. Activities included conducting surveying and videoing of portions of storm sewer 004, 005, and 013 alignments.
- Completed bid solicitation and subcontractor selection for the 002/005 bulkheading request for proposal.

Task 14 - Address 15 Areas of Subsurface LNAPL

Routine Work

- Not Applicable.

Non - Routine Work

- Not Applicable.

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

Routine Work

- Not Applicable.

Non - Routine Work

- Continued to address gas line installation issues with Consumers Energy. The system will not be able to be started until the Consumers Energy installs the proper reducer for the natural gas line.

Attachment 3

2012 Outfall 003 Dry and Wet
Weather Storm Water Sampling
Results

2012 Outfall 005 Sampling
Results

**2012 Outfall 003A Dry Weather Storm Water Sampling Data
2012 Yearly PMP Report**

**RACER Trust
Buick City
Flint, Michigan**

Location ID: Date Collected: Outfall:	Units	OUTFALL 003A 01/05/12 003	OUTFALL 003A 01/11/12 003	OUTFALL 003A 01/19/12 003	OUTFALL 003A 01/25/12 003	OUTFALL 003A 01/31/12 003	OUTFALL 003A 02/07/12 003	OUTFALL 003A 02/15/12 003	OUTFALL 003A 02/24/12 003	OUTFALL 003A 02/29/12 003
PCB										
Aroclor-1016 (PCB-1016)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1221 (PCB-1221)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1232 (PCB-1232)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1242 (PCB-1242)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1248 (PCB-1248)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1254 (PCB-1254)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1260 (PCB-1260)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total PCBs	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10

Location ID: Date Collected: Outfall:	Units	OUTFALL 003A 03/07/12 003	OUTFALL 003A 03/16/12 003	OUTFALL 003A 03/21/12 003	OUTFALL 003A 03/27/12 003	OUTFALL 003A 04/05/12 003	OUTFALL 003A 04/10/12 003	OUTFALL 003A 04/19/12 003	OUTFALL 003A 04/24/12 003	OUTFALL 003A 05/03/12 003
PCB										
Aroclor-1016 (PCB-1016)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1221 (PCB-1221)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1232 (PCB-1232)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1242 (PCB-1242)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1248 (PCB-1248)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1254 (PCB-1254)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1260 (PCB-1260)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total PCBs	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10

Location ID: Date Collected: Outfall:	Units	OUTFALL 003A 05/09/12 003	MH 3-3 05/15/12 003	OUTFALL 003A 05/23/12 003	OUTFALL 003A 05/31/12 003	OUTFALL 003A 06/05/12 003	OUTFALL 003A 06/14/12 003	OUTFALL 003A 06/20/12 003	OUTFALL 003A 06/27/12 003	OUTFALL 003A 07/06/12 003
PCB										
Aroclor-1016 (PCB-1016)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1221 (PCB-1221)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1232 (PCB-1232)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1242 (PCB-1242)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1248 (PCB-1248)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1254 (PCB-1254)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1260 (PCB-1260)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total PCBs	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10

**2012 Outfall 003A Dry Weather Storm Water Sampling Data
2012 Yearly PMP Report**

**RACER Trust
Buick City
Flint, Michigan**

Location ID: Date Collected: Outfall:	Units	OUTFALL 003A 07/10/12 003	OUTFALL 003A 07/17/12 003	OUTFALL 003A 07/24/12 003	OUTFALL 003A 08/01/12 003	OUTFALL 003A 08/07/12 003	OUTFALL 003A 08/16/12 003	OUTFALL 003A 08/22/12 003	OUTFALL 003A 08/28/12 003	OUTFALL 003A 09/07/12 003
PCB										
Aroclor-1016 (PCB-1016)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1221 (PCB-1221)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1232 (PCB-1232)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1242 (PCB-1242)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1248 (PCB-1248)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1254 (PCB-1254)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1260 (PCB-1260)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total PCBs	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10

Location ID: Date Collected: Outfall:	Units	OUTFALL 003A 09/11/12 003	OUTFALL 003A 09/19/12 003	OUTFALL 003A 09/25/12 003	OUTFALL 003A 10/04/12 003	OUTFALL 003A 10/09/12 003	OUTFALL 003A 10/16/12 003	OUTFALL 003A 10/23/12 003	OUTFALL 003A 10/30/12 003	OUTFALL 003A 11/06/12 003
PCB										
Aroclor-1016 (PCB-1016)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1221 (PCB-1221)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1232 (PCB-1232)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1242 (PCB-1242)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1248 (PCB-1248)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1254 (PCB-1254)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1260 (PCB-1260)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total PCBs	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10

Location ID: Date Collected: Outfall:	Units	OUTFALL 003A 11/16/12 003	OUTFALL 003A 11/20/12 003	OUTFALL 003A 11/28/12 003	OUTFALL 003A 12/05/12 003	OUTFALL 003A 12/11/12 003	OUTFALL 003A 12/22/12 003	OUTFALL 003A 12/26/12 003
PCB								
Aroclor-1016 (PCB-1016)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1221 (PCB-1221)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1232 (PCB-1232)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1242 (PCB-1242)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1248 (PCB-1248)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1254 (PCB-1254)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1260 (PCB-1260)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total PCBs	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10

2012 Outfall 003A Wet Weather Storm Water Sampling Data
2012 Yearly PMP Report

RACER Trust
Buick City
Flint, Michigan

Location ID:		OUTFALL 003A
Date Collected:		10/18/12
Outfall:	Units	003
PCB		
Aroclor-1016 (PCB-1016)	ug/L	<0.10
Aroclor-1221 (PCB-1221)	ug/L	<0.10
Aroclor-1232 (PCB-1232)	ug/L	<0.10
Aroclor-1242 (PCB-1242)	ug/L	<0.10
Aroclor-1248 (PCB-1248)	ug/L	<0.10
Aroclor-1254 (PCB-1254)	ug/L	<0.10
Aroclor-1260 (PCB-1260)	ug/L	<0.10
Total PCBs	ug/L	<0.10

**2012 Outfall 005 Sampling Data
2012 Yearly PMP Report**

**RACER Trust
Buick City
Flint, Michigan**

Location ID: Sample Depth(): Date Collected:	GSI	Units	MH 5-6 01/03/12	MH 5-6 02/06/12	MH 5-6 03/22/12	MH 5-6 04/09/12	MH 5-6 05/10/12	MH 5-6 06/04/12	MH 5-6 07/11/12	MH 5-6 08/06/12	MH 5-6 09/10/12	MH 5-6 10/22/12	MH 5-6 11/19/12	MH 5-6 12/18/12
PCB														
Aroclor-1016	--	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1221	--	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1232	--	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1242	--	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1248	--	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1254	--	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1260	--	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total PCBs	0.2 {(M)}	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10

Attachment 4

2012 Field Inspection Notes – Outfall
003/004 BaySaver Separation
System

2012 Field Inspection Notes
 Outfall 003/004 BaySaver Separation System
 2012 Yearly PMP Report

RACER Trust
 Buick City
 Flint, Michigan

DATE	WEATHER		OUTFALL 003									SYSTEM COMPONENTS												OUTFALL 004								
	Temp (°F)	Conditions (rain, etc.)	MH 3-3			MH 3-6						Bay Saver Primary MH						Bay Saver Storage MH						Oil Water Separator			MH 4-6				MH 4-5	
			Obstructions (Y/N)	Flow (Y/N)	Obstructions (Y/N)	Quantity of Debris	Flow (Y/N)	Depths		Cresting Weir (Y/N)	Pooling Oil (Y/N)	Obstructions (Y/N)	Qty. of Debris	Flow (Y/N)	Depths		Obstructions (Y/N)	Flow (Y/N)	Type of Debris	Depths		Obstructions (Y/N)	Depths		Obstructions (Y/N)	Debris Quantity	Flow (Y/N)	Depths		Flow (Y/N)		
								To Water	To Bottom						To LNAPL	To Water				To Bottom	To LNAPL		To Water	To Bottom				To Water	To Bottom		To Water	To Bottom
8/26/2011	70	Clear	No	Yes	NA	NA	NA	NA	NA	NA	NA	No	None	Yes	NA	11.51	17.60	No	Yes	Vegetation	11.67	12.73	19.50	No	NA	10.04	No	None	Yes	7.02	9.38	No
8/29/2011	75	Cloudy	No	Yes	NA	NA	NA	NA	NA	NA	NA	No	None	Yes	NA	11.78	18.88	No	Yes	Vegetation, EO,	11.79	12.64	19.56	No	NA	10.06	No	None	Yes	7.1	9.37	No
8/30/2011	75	Clear	No	Yes	NA	NA	NA	NA	NA	NA	NA	No	None	Yes	NA	11.79	18.92	No	Yes	Vegetation, EO,	11.81	12.69	19.58	No	NA	10.04	No	None	Yes	7.09	9.34	No
9/2/2011	Jetted line into MH 3-6, line was plugged with debris																															
9/7/2011	50	Overcast	No	Yes	NA	NA	NA	NA	NA	NA	NA	No	None	Yes	NA	11.71	18.89	No	Yes	Vegetation	11.62	12.77	19.61	No	NA	9.98	No	None	Yes	7.21	9.36	No
9/9/2011	65	Overcast	No	Yes	NA	NA	NA	NA	NA	NA	NA	No	None	Yes	NA	11.73	18.91	No	Yes	Vegetation, EO,	11.66	12.89	19.44	No	NA	10.02	No	None	Yes	7.19	9.38	No
wk of 9/11	see notes	see notes	No	Yes	NA	NA	NA	NA	NA	NA	NA	No	None	Yes	NA	see notes	see notes	No	Yes	Vegetation, EO,	see notes	see notes	see notes	No	NA	see notes	No	None	Yes	see notes	see notes	No
9/21/2011	66	Overcast	No	Yes	NA	NA	NA	NA	NA	NA	NA	No	None	Yes	NA	11.77	18.92	No	Yes	Vegetation	11.71	12.91	19.55	No	NA	10.04	No	None	Yes	7.21	9.39	No
9/23/2011	55	Overcast	No	Yes	NA	NA	NA	NA	NA	NA	NA	No	None	Yes	NA	11.76	18.89	No	Yes	Vegetation, EO,	11.68	12.79	19.49	No	NA	10.03	No	None	Yes	7.14	9.37	No
9/26/2011	65	Rain	No	Yes	No	None	Yes	NA	NA	Yes	No	No	None	Yes	NA	11.62	18.91	No	Yes	Vegetation, EO,	11.81	12.92	19.51	No	NA	10.02	No	None	Yes	6.03	9.35	Yes
10/3/2011	System Cleaning Began (see notes)																															
10/7/2011	65	sunny	No	Yes	No	NA	Yes	NA	NA	No	No	No	None	Yes	NA	11.47	19.66	No	Yes	EO	NA	11.91	18.98	No	NA	10.12	No	None	Yes	7.79	9.33	No
10/11/2011	55	Overcast	No	Yes	No	NA	Yes	NA	NA	No	No	No	None	Yes	NA	11.63	20.20	No	Yes	EO	NA	11.31	19.98	No	NA	10.11	No	None	Yes	7.61	9.35	No
10/21/2011	50	Cloudy	No	Yes	No	NA	Yes	NA	NA	No	No	No	None	Yes	NA	11.10	19.22	No	Yes	EO	NA	11.36	19.98	No	NA	10.09	No	None	Yes	7.59	9.33	No
10/25/2011	50	Cloudy	No	Yes	No	NA	Yes	11.15	12.45	No	No	No	None	Yes	NA	11.19	19.55	No	Yes	EO	NA	11.55	19.96	No	NA	10.12	No	None	Yes*	7.22	9.36	No
10/28/2011	50	Overcast	No	Yes	No	NA	Yes	11.71	12.36	No	No	No	None	Yes	NA	11.21	19.72	No	Yes	EO	NA	11.68	19.94	No	NA	10.09	No	None	Yes*	7.15	9.35	No
10/31/2011	40	Overcast	No	Yes	No	NA	Yes	11.80	12.31	No	No	No	None	Yes	NA	11.33	19.68	No	Yes	EO	NA	11.71	19.86	No	NA	10.02	No	None	Yes*	7.18	9.36	No
11/1/2011	50	Clear	No	Yes	No	NA	Yes	11.84	12.39	No	No	No	None	Yes	NA	11.39	19.71	No	Yes	EO	NA	11.70	19.83	No	NA	10.04	No	None	Yes*	7.17	9.37	No
11/4/2011	30	Clear	No	Yes	No	NA	Yes	11.81	12.60	No	No	No	None	Yes	NA	11.37	19.69	No	Yes	EO	NA	11.68	19.87	No	NA	10.01	No	None	Yes*	7.18	9.35	No
11/7/2011	45	Cloudy	No	Yes	No	NA	Yes	11.80	12.43	No	No	No	None	Yes	NA	11.27	19.67	No	Yes	EO	NA	11.72	19.83	No	NA	10.09	No	None	Yes*	7.18	9.36	No
11/14/2011	42	Overcast	No	Yes	No	NA	Yes	11.75	12.45	No	No	No	None	Yes	NA	11.42	19.08	No	Yes	EO	11.71	11.79	19.85	No	NA	9.99	No	None	Yes*	7.09	9.35	No
11/15/2011	40	Clear	No	Yes	No	NA	Yes	11.77	12.47	No	No	No	None	Yes	NA	11.44	19.11	No	Yes	EO	11.70	11.86	19.87	No	NA	9.98	No	None	Yes*	7.11	9.35	No
11/22/2011	35	Overcast	No	Yes	No	NA	Yes	11.78	12.43	No	No	No	None	Yes	NA	11.43	19.08	No	Yes	EO	11.69	11.98	19.83	No	NA	10.01	No	None	Yes*	7.02	9.37	No
11/30/2011																																
12/9/2011	30	Overcast	No	Yes	No	NA	Yes	11.76	12.45	No	No	No	some trash	Yes	NA	11.41	19.06	No	Yes	EO	11.69	11.78	19.81	No	NA	10.00	No	None	Yes*	7.59	9.84	No
12/12/2011	30	Overcast	No	Yes	No	NA	Yes	11.71	12.47	No	No	No	some trash	Yes	NA	11.39	19.07	No	Yes	EO	11.67	11.70	19.8	No	NA	10.02	No	None	Yes*	7.55	9.84	No
12/22/2011	35	Clear	No	Yes	No	NA	Yes	11.78	12.45	No	No	No	some trash	Yes	NA	11.42	19.05	No	Yes	EO	11.7	11.86	19.83	No	NA	10.1	No	None	Yes*	7.58	9.83	No
12/28/2011	258	Clear	No	Yes	No	NA	Yes	11.75	12.46	No	No	No	some trash	Yes	NA	11.45	19.08	No	Yes	EO	11.71	11.88	19.84	No	NA	10.02	No	None	Yes*	7.59		
1/3/2012	19	Overcast	No	Yes	No	NA	Yes	11.69	12.45	No	No	No	some trash	Yes	NA	11.38	19.10	No	Yes	EO	11.45	See notes	19.81	No	NA	10.01	No	None	Yes*	7.51	9.85	No
1/10/2012	30	Overcast	No	Yes	No	NA	Yes	11.72	12.44	No	No	No	some trash	Yes	NA	11.42	19.10	No	Yes	EO	11.48	See notes		No	NA	10.01	No	None	Yes*	7.55	9.86	No
1/19/2012	21	Partly cloudy	No	Yes	No	sheen	Yes	11.74	12.45	No	No	No	some EO	Yes	NA	11.19	19.22	No	Yes	EO	11.32	See notes		Lock and gate frozen			No	None	Yes	7.54	9.59	No
1/26/2012	30	Overcast	No	Yes	No	sheen	Yes	11.61	12.43	No	No	No	some EO	Yes	NA	11.12	19.14	No	Yes	EO	11.71	~12.00	19.79	No	NA	10.01	No	None	Yes	7.43	9.71	No
1/31/2012	45	Sunny	No	Yes	See notes						No	some EO	Yes	NA	11.33	19.16	No	Yes	EO	11.59	See notes	No	NA	10.02	No	None	Yes	7.56	9.56	No		
2/8/2012	30	Clear	No	Yes	See notes						No	some EO	Yes	NA	11.38	19.16	No	Yes	EO	11.61	See notes	No	NA	10.01	No	None	Yes	7.49	9.56	No		
2/15/2012	30	Overcast	No	Yes	No	sheen	Yes	12.01	12.39	No	No	No	some EO	Yes	NA	11.41	19.17	No	Yes	EO	11.60	See notes	No	NA	10.02	No	None	Yes	7.52	9.63	No	
2/21/2012	20	Snow	No	Yes	No	sheen	Yes	11.75	12.41	No	No	No	some EO	Yes	NA	11.4	19.19	No	Yes	EO	11.61	See notes	No	NA	10.03	No	None	Yes	7.5	9.65	No	
2/27/2012	28	Overcast	No	Yes	No	sheen	Yes	11.69	12.38	No	No	No	some EO	Yes	NA	11.38	19.16	No	Yes	EO	11.58	See notes	No	NA	10.01	No	None	Yes	7.48	9.66	No	
3/8/2012	45	rain	No	Yes	No	sheen	Yes	11.61	12.40	Yes, some overflow	No	No	some EO	Yes	NA	11.34	19.2	No	Yes	EO	11.41	See notes	No	NA	10.04	No	None	Yes	7.45	9.68	No	

Note:
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 EO indicates emulsified oil

2012 Field Inspection Notes
 Outfall 003/004 BaySaver Separation System
 2012 Yearly PMP Report

RACER Trust
 Buick City
 Flint, Michigan

DATE	WEATHER		OUTFALL 003									SYSTEM COMPONENTS											OUTFALL 004										
	Temp (°F)	Conditions (rain, etc.)	MH 3-3			MH 3-6						Bay Saver Primary MH					Bay Saver Storage MH						Oil Water Separator			MH 4-6				MH 4-5			
			Obstructions (Y/N)	Flow (Y/N)	Obstructions (Y/N)	Quantity of Debris	Flow (Y/N)	Depths		Cresting Weir (Y/N)	Pooling Oil (Y/N)	Obstructions (Y/N)	Qty. of Debris	Flow (Y/N)	Depths			Obstructions (Y/N)	Flow (Y/N)	Type of Debris	Depths			Obstructions (Y/N)	Depths		Obstructions (Y/N)	Debris Quantity	Flow (Y/N)	Depths		Flow (Y/N)	
								To Water	To Bottom						To LNAPL	To Water	To Bottom				To LNAPL	To Water	To Bottom		To Water	To Bottom							
3/13/2012	50	Clear	No	Yes	No	sheen	Yes	11.65	12.42	No	No	No	some EO	Yes	NA	11.36	19.14	No	Yes	EO	11.2	See notes			No	NA	10.01	No	None	Yes	7.49	9.66	No
3/23/2012	60	Cloudy	No	Yes	No	sheen	Yes	11.63	12.40	No	No	No	some EO	Yes	NA	11.33	19.14	No	Yes	EO	11.19	See notes			No	NA	10.02	No	None	Yes	7.52	9.63	No
3/27/2012	40	Overcast	No	Yes	No	sheen	Yes	11.65	12.43	No	No	No	some EO	Yes	NA	11.35	19.13	No	Yes	EO	11.33	See notes			No	NA	10.01	No	None	Yes	7.43	9.66	No
4/4/2012	50	Overcast	No	Yes	No	sheen	Yes	11.70	12.42	No	No	No	some EO	Yes	NA	11.39	19.14	No	Yes	EO	11.58	See notes			No	NA	10.01	No	Yes, cleared debris	Yes	7.62	9.64	No
4/11/2012	40	Overcast	No	Yes	No	sheen	Yes	11.68	12.44	No	No	No	some EO	Yes	NA	11.41	19.12	No	Yes	EO	11.44	See notes			No	NA	10.02	No	small pieces in vault	Yes	7.59	9.66	No
4/19/2012	60	Overcast	No	Yes	No	sheen	Yes	11.69	12.43	No	No	No	some EO	Yes	NA	11.39	19.12	No	Yes	EO	11.49	See notes			No	NA	10.02	No	small pieces in vault	Yes	8.61	9.66	No
4/24/2012	45	Clear	No	Yes	No	sheen	Yes	11.71	12.43	No	No	No	some EO	Yes	NA	11.4	19.13	No	Yes	EO	11.5	See notes			No	NA	10.01	No	Yes, cleared debris	Yes	7.6	9.64	No
5/1/2012	50	Overcast	No	Yes	No	sheen	Yes	11.72	12.44	No	No	No	some EO	Yes	NA	11.4	19	No	Yes	EO	11.48	See notes			No	NA	10.02	No	small pieces in vault	Yes	7.7	9.65	No
5/4/2012	50	Overcast	No	Yes	No	sheen	Yes	7.95	12.43	yes	No	No	some EO	Yes	NA	11.21	18.68	No	Yes	EO	11.3	See notes			No	NA	10.02	No	clear	Yes	4.46	9.6	yes
5/9/2012	50	Overcast	No	Yes	No	sheen	Yes	7.91	12.41	yes	No	No	some EO	Yes	NA	11.3	18.59	No	Yes	EO	11.29	See notes			No	NA	10.01	No	clear	Yes	4.98	9.59	yes
5/14/2012	50	Overcast	No	Yes	No	sheen	Yes	7.86	12.42	yes	No	No	some EO	Yes	NA	11.3	18.55	No	Yes	EO	11.29	See notes			No	NA	10.02	No	clear	Yes	5.01	9.61	yes
5/17/2012	YECl onsite to jet line, clog found downstream of 4-6. caused by large storm event																																
5/24/2012	50	Overcast	No	Yes	No	sheen	Yes	11.39	12.43	No	No	No	some EO	Yes	NA	11.39	18.53	No	Yes	EO	11.31	See notes			No	NA	10.02	No	clear	Yes	7.66	9.6	No
6/1/2012	50	Overcast	No	Yes	No	sheen	Yes	11.41	12.45	No	No	No	some EO	Yes	NA	11.36	18.55	No	Yes	EO	11.35	See notes			No	NA	10.01	No	clear	Yes	7.69	9.61	No
6/7/2012	50	Overcast	No	Yes	No	sheen	Yes	11.45	12.40	No	No	No	some EO	Yes	NA	11.33	18.52	No	Yes	EO	11.39	See notes			No	NA	10.01	No	small pieces in vault	Yes	7.7	9.62	No
6/14/2012	50	Overcast	No	Yes	No	sheen	Yes	11.42	12.42	No	No	No	some EO	Yes	NA	11.34	18.52	No	Yes	EO	11.41	See notes			No	NA	10.01	No	small pieces in vault	Yes	7.71	9.6	No
6/19/2012	50	Overcast	No	Yes	No	sheen	Yes	11.43	12.41	No	No	No	some EO	Yes	NA	11.33	18.55	No	Yes	EO	11.42	See notes			No	NA	10.02	No	small pieces in vault	Yes	7.7	9.61	No
6/27/2012	65	Clear	No	Yes	No	sheen	Yes	11.49	12.40	No	No	No	some EO	Yes	NA	11.32	18.51	No	Yes	EO	11.41	See notes			No	NA	10.01	No	small pieces in vault	Yes	7.8	9.63	No
7/5/2012	80	Clear	No	Yes	No	sheen	Yes	11.46	12.41	No	No	No	some EO	Yes	NA	11.3	18.5	No	Yes	EO	11.41	See notes			No	NA	10	No	small pieces in vault	Yes	7.76	9.61	No
7/10/2012	50	Overcast	No	Yes	No	sheen	Yes	11.51	12.41	No	No	No	some EO	Yes	NA	11.36	18.49	No	Yes	EO	11.43	See notes			No	NA	10.01	No	small pieces in vault	Yes	7.81	9.6	No
7/17/2012	90	Clear	No	Yes	No	sheen	Yes	11.53	12.41	No	No	No	some EO	Yes	NA	11.37	18.46	No	Yes	EO	11.45	See notes			No	NA	10.02	No	small pieces in vault	Yes	7.83	9.62	No
7/26/2012	80	Overcast	No	Yes	No	sheen	Yes	11.52	12.42	No	No	No	some EO	Yes	NA	11.36	18.47	No	Yes	EO	11.44	See notes			No	NA	10.01	No	small pieces in vault	Yes	7.84	9.61	No
8/9/2012	65	Overcast	No	Yes	No	sheen	Yes	11.55	12.41	No	No	No	some EO	Yes	NA	11.39	18.4	No	Yes	EO	11.49	See notes			No	NA	10	No	small pieces in vault	Yes	7.89	9.61	No

Note:
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2012 Field Inspection Notes
 Outfall 003/004 BaySaver Separation System
 2012 Yearly PMP Report

RACER Trust
 Buick City
 Flint, Michigan

DATE	WEATHER		OUTFALL 003									SYSTEM COMPONENTS												OUTFALL 004								
	Temp (°F)	Conditions (rain, etc.)	MH 3-3			MH 3-6						Bay Saver Primary MH						Bay Saver Storage MH						Oil Water Separator			MH 4-6				MH 4-5	
			Obstructions (Y/N)	Flow (Y/N)	Obstructions (Y/N)	Quantity of Debris	Flow (Y/N)	Depths		Cresting Weir (Y/N)	Pooling Oil (Y/N)	Obstructions (Y/N)	Qty. of Debris	Flow (Y/N)	Depths			Obstructions (Y/N)	Flow (Y/N)	Type of Debris	Depths			Obstructions (Y/N)	Depths		Obstructions (Y/N)	Debris Quantity	Flow (Y/N)	Depths		Flow (Y/N)
								To Water	To Bottom						To LNAPL	To Water	To Bottom				To LNAPL	To Water	To Bottom		To LNAPL	To Water				To Bottom	To Water	
8/16/2012	65	Clear	No	Yes	No	sheen	Yes	10.34	12.40	yes	No	No	some EO	Yes	NA	11.5	18.92	No	Yes	EO	11.56	See notes	No	NA	10.02	No	small pieces in vault	Yes	5.72	9.63	No	
8/22/2012	65	Clear	No	Yes	No	sheen	Yes	11.29	12.40	No	No	No	some EO	Yes	NA	11.43	18.86	No	Yes	EO	11.49	See notes	No	NA	10.01	No	small pieces in vault	Yes	7.66	9.6	No	
8/27/2012	65	Clear	No	Yes	No	sheen	Yes	11.36	12.38	No	No	No	some EO	Yes	NA	11.49	18.88	No	Yes	EO	11.51	See notes	No	NA	10.01	No	small pieces in vault	Yes	7.7	9.61	No	
9/6/2012	60	Clear	No	Yes	No	sheen	Yes	11.34	12.40	No	No	No	some EO	Yes	NA	11.45	18.86	No	Yes	EO	11.5	See notes	No	NA	10.01	No	small pieces in vault	Yes	7.69	9.6	No	
9/14/2012	50	Rain	No	Yes	No	sheen	Yes	11.40	12.36	No	No	No	some EO	Yes	NA	11.45	18.89	No	Yes	EO	11.53	See notes	No	NA	10.02	No	small pieces in vault	Yes	7.66	9.62	No	
9/20/2012	50	Overcast	No	Yes	No	sheen	Yes	11.36	12.39	No	No	No	some EO	Yes	NA	11.48	18.86	No	Yes	EO	11.49	See notes	No	NA	10.01	No	small pieces in vault	Yes	7.71	9.61	No	
9/27/2012	65	Overcast	No	Yes	No	sheen	Yes	11.35	12.40	No	No	No	some EO	Yes	NA	11.43	18.88	No	Yes	EO	11.5	See notes	No	NA	10.01	No	small pieces in vault	Yes	7.68	9.6	No	
10/3/2012	68	Clear	No	Yes	No	sheen	Yes	11.36	12.38	No	No	No	some EO	Yes	NA	11.42	18.87	No	Yes	EO	11.48	See notes	No	NA	10.02	No	small pieces in vault	Yes	7.65	9.61	No	
10/9/2012	60	sunny	No	Yes	No	sheen	Yes	11.37	12.40	No	No	No	some EO	Yes	NA	11.41	18.88	No	Yes	EO	11.49	See notes	No	NA	10.02	No	small pieces in vault	Yes	7.66	9.62	No	
10/15/2012	50	Cloudy	No	Yes	No	sheen	Yes	11.35	12.40	No	No	No	some EO	Yes	NA	11.43	18.89	No	Yes	EO	11.48	See notes	No	NA	10.01	No	small pieces in vault	Yes	7.66	9.6	No	
10/29/2012	38	Overcast	No	Yes	No	sheen	Yes	11.36	12.41	No	No	No	some EO	Yes	NA	11.42	18.87	No	Yes	EO	11.5	See notes	No	NA	10.02	No	small pieces in vault	Yes	7.65	9.61	No	
11/6/2012	003/004 system bypassed for annual cleaning																															
12/26/2013	30	Overcast	No	Yes	No	sheen	Yes	11.49	12.40	No	No	No	some EO	Yes	NA	11.42	20	No	Yes	EO	not meas	11.51	19.95	No	NA	9.97 21.42	No	none	Yes	7.69	9.63	No

Note:
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 EO indicates emulsified oil