

US EPA ARCHIVE DOCUMENT

ARCADIS  
10559 Citation Drive  
Suite 100  
Brighton  
Michigan 48116  
Tel 810.229.8594  
Fax 810.229.8837  
[www.arcadis-us.com](http://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:  
First Quarter 2013 Progress Report (No. 7)  
Revitalizing Auto Communities Environmental Response (RACER) Trust  
Buick City Site, Flint, Michigan

Date:  
April 12, 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 First Quarter 2013 Progress Report (No. 7) 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 First Quarter 2013 Progress Report (No. 7) covers the period of January 1, 2013 through March 31, 2013.

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 2013 Annual CMI Report, except as noted below.

### 1.1 Storm Sewer Water Samples

In January, February, and March 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 January to March 2013, 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 2013 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 March ARCADIS collected soil samples as part of the Northern Parcel Investigation to delineate exceedances of criteria. Soil samples were collected from 12 soil boring locations and submitted for laboratory analysis of manganese. This data will be submitted in a brief memo report.

### 1.3 LNAPL Samples

In March ARCADIS collected LNAPL samples from nine monitoring wells as part of the LNAPL Investigation plan. The LNAL samples were submitted for laboratory analysis of volatile organic compounds (VOCs), metals, and/or PCBs. This data will be included in the LNAPL remedy selection memos.

**2. Work Performed This Quarter**

Attachments 1, 2, and 3 present the monthly Site progress reports for January, February, and March 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. Startup of the system has been scheduled for April 9, 2013.

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

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

**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 7 Enhanced Groundwater Monitoring*

- Conduct Annual Groundwater Monitoring Event.

*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 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 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 1 Outfall 003/004 Oil Removal Systems*

- Perform a system maintenance and waste disposal event.

*Task 2 LNAPL Investigation*

- Perform transmissivity testing at the Northend of the Site.
- Perform NSZD testing at the Northend of the Site.
- Complete additional investigation boring/monitoring well installation at AOI 5-01/5-05, AOI 10-1/10-4, and Factory 83/84.
- Complete delineation of AOI 83/84-3 Lead Soil Investigation and former Factory 31 Basement 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.
- Conduct respirometry testing.

*Task 7 Enhanced Groundwater Monitoring*

- Complete sampling of select additional wells to characterize the current conditions of the dissolved phase plumes associated with the Site LNAPL plumes.

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

- Conduct additional delineation 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 surface cover as required.

*Task 11 Lead Soil Removal*

- Begin 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.
- Investigate additional bulkheading location options.

*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%
- Southend Natural Source Zone Depletion Study – 100%

- Southend Transmissivity Testing – 100%
- Northend Natural Source Zone Depletion Study – 0%
- Northend Transmissivity Testing – 2%
  - LNAPL Investigation Work Plan Submitted to the USEPA on 2/26/13.
  - USPEA Approval of LNAPL Investigation Work Plan Received on 3/27/13.
- Additional LNAPL Investigation – 2%
  - LNAPL Investigation Work Plan Submitted to the USEPA on 2/26/13.
  - USPEA Approval of LNAPL Investigation Work Plan Received on 3/27/13.

*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
  - Notices of Migration Contamination (NOM) for three offsite property owners were sent out on 3/12/13.

*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%
  - Received Acceptance of Northend Certification of Closure Response Activities at RCRA Waste Management Units from the Michigan department of Environmental Quality (MDEQ) on 1/17/13.
- Southend RCRA WMU Closures – 90%
  - Received Acceptance of Southend Certification of Closure Response Activities at RCRA Waste Management Units from the MDEQ on 1/17/13.

- 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 – 35%

*Task 11 Lead Soil Removal*

- Lead Soil Removal – 15%
- Northern Parcel Investigation – 85%
  - Completed Delineation Field Work on 3/21/13.

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

- RFI Phase I Report - 100%
- RFI Phase II Report - 100%
- Human Health Exposure Control EI Report - 100%
- CA 750 Report - 100%
- Revised Corrective Measures Proposal (CMP), May 1, 2008 – 100%
- Revised CMP Addendum No. 1 – 100%
- Southend Corrective Measures Implementation (CMI) Work Plan – 100%
- Revised CMP Addendum No. 2 – Northend and Site-wide Groundwater - 100%
- Revised CMP Addendum No. 2-1 – Response to EPA Comments - 100%
- 2012 CMI Annual Report – 100%
  - Submitted to USEPA on 3/29/12.

*Task 13 Outfall 002/005 Oil Minimization & Investigation*

- Outfall 002 Storm Sewer Evaluation - 100%



- Outfall 003 Storm Sewer Evaluation – 40%
- Outfall 004 Re-route into Outfall 013 Evaluation - 35%
- Outfall 005 Storm Sewer Evaluation – 100%
- Outfall 002 Final Measure Implementation– 90%
  - Began Outfall 002 Bulkheading on 2/26/13.
- Outfall 003 Final Measure Implementation – 25%
  - Began Outfall 003 Bulkheading at select locations on 2/26/13.
- Outfall 005 Final Measure Implementation – 90%
  - Began Outfall 005 Bulkheading on 2/26/13.
- Outfall 007 Final Measure Implementation – 90%
  - Began Outfall 007 Bulkheading on 2/26/13.

*Task 14 Address 15 Areas of Subsurface LNAPL*

- Address 15 Areas of LNAPL – 7%
  - AOI 09-B System Design, Permitting, and Construction – 100%
  - System Construction completed on 1/4/13.

*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,



Micki M. Maki, P.E.  
Certified 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)  
Chris Peters, ARCADIS (via email)  
Christi Kiker, ARCADIS (via email)

Attachments:

Attachment 1 – January 2013 Project Update - RACER Buick City Site  
Attachment 2 – February 2013 Project Update - RACER Buick City Site  
Attachment 3 – March 2013 Project Update - RACER Buick City Site  
Attachment 4 – RACER Buick City Field Schedule – Second and Third Quarter



**Attachment 1**

January 2013 Project Update



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  
Christi Kiker, ARCADIS  
Chris Peters, ARCADIS

From:  
Micki Maki

Date:  
February 14, 2013

ARCADIS Project No.:  
B0064410.2013

Subject:  
January 2013 Project Update - RACER Buick City Site, Flint, Michigan

---

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this January 2013 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from January 1, 2013 through January 31, 2013.

**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

- No work performed.

**Task 2 - LNAPL Investigation**

Routine Work

- No work performed.

Non - Routine Work

- Reviewed LIF data and begin development of LNAPL sampling plan.
- Reviewed existing transmissivity/NSZD data to determine applicability at the Northend of the Site.
- Evaluated third quarter of NSZD data to determine whether a fourth quarter of sampling should be recommended for the Southend of the Site.

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

- No work performed.

Non - Routine Work

- Reviewed data for Northend AOI's and developed next step and technology/remedy options.

**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. Disposed of waste as necessary.
- Performed inspections of Oil Interceptor #2.
- Performed manhole boom inspections.

Non - Routine Work

- No work performed.

**Task 7 - Enhanced Groundwater Monitoring**Routine Work

- Performed validation of the data from the annual groundwater monitoring event.

Non - Routine Work

- No work performed.

**Task 8 - NPDES PLUS Monitoring**

Routine Work

- Completed the monthly NPDES Plus Monitoring event for January.

Non - Routine Work

- Continued evaluation of the GSI pathway and began drafting a sampling plan to determine whether the pathway is applicable.

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

Routine Work

- No work performed.

Non - Routine Work

- Received Closure Letters for the Northend and Southend WMUs from the MDEQ. Reviewed letters to determine next steps required to complete the closures.
- Completed draft summary memo of 12 historic Leaking Underground Storage Tank (LUST) releases to facilitate transfer to RCRA Corrective Action.

**Task 10 – Maintain Select Surface Covers**

Routine Work

- Performed quarterly select surface cover inspections.

Non - Routine Work

- Reviewed AOI 29-A laboratory data and prepared a draft select surface cover area memo to document the results and the areas of AOI 29-A requiring cover.

**Task 11 - Lead Soil Removal**

Routine Work

- No work performed.

Non - Routine Work

- Revised Northern Parcel Memo to include historic and RFI data.

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

Routine Work

- Prepared the Monthly EPA update memo.

Non - Routine Work

- Conducted an onsite meeting with Chris Black (EPA), Tetra Tech, and RACER to tour the Site and reviewed the current status of tasks.
- Finalized purchase order for 2013 budget.
- Began development of Annual CMI report.

**Task 13 - Outfall 002/005 Oil Minimization & Investigation**

Routine Work

- Not Applicable.

Non - Routine Work

- Began engineering evaluation of drainage areas and existing sewer pipe capacities for re-routing the Outfall 004 storm sewer at the upgradient Site property boundary into the Outfall 013 storm sewer.
- Completed Bulkheading RFP Addendum #2 incorporating the additional scope of work identified in Addendum No. 1 to the Outfall 002 and 005 Storm Sewer Bulkheading Work Plan (ARCADIS December 2012).

**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

- Performed minor maintenance at AOI 09-B MPE treatment system. System startup is anticipated for spring 2013.



**Attachment 2**

February 2013 Project Update





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  
Christi Kiker, ARCADIS

From:  
Micki Maki

Date:  
April 10, 2013

ARCADIS Project No.:  
B0064410.2013

Subject:  
February 2013 Project Update - RACER Buick City Site, Flint, Michigan

---

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this February 2013 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from February 1, 2013 through February 28, 2013.

**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

- No work performed.

**Task 2 - LNAPL Investigation**

Routine Work

- No work performed.

Non - Routine Work

- Continued development of LNAPL investigation work plan including gauging, sampling, transmissivity testing, and additional soil boring locations for delineation at AOI 10-1/10-4 and AOI 05-1/05-4.
- Developed a work plan for additional investigation of LIF impact beneath Factory 83/84. The work plan also included additional delineation of the AOI 83/84-3 Lead Soil impacts and the Factory 31 Basement Investigation.
- Completed the Draft Southend Transmissivity Report.
- Completed the Draft Natural Source Zone Depletion (NSZD) Report.
- Completed the draft LIF extent of impact Figures.

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

Routine Work

- No work performed.

Non - Routine Work

- Continued reviewing data for Northend AOI's and developed next step and technology/remedy options.

**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. Disposed of waste as necessary.
- Performed inspections of Oil Interceptor #2.
- Performed manhole boom inspections.

Non - Routine Work

- Removed booms from manholes effected by the bulkheading activities

**Task 7 - Enhanced Groundwater Monitoring**

Routine Work

- Performed validation of the data from the annual groundwater monitoring event.

Non - Routine Work

- Submitted Notification of Validated Laboratory Analytical Results of Annual Groundwater Sampling Event memorandum to CSX.
- Began developing Notices of Migration Contamination (NOM) for three offsite property owners: City of Flint, Consumers Energy and Howell Farms. NOM had previously been submitted to the City of Flint in 2003 and 2006. The NOM for the City of Flint properties are being updated to include additional analytes based on the results of the 2012 Annual Sampling Event. The NOMs being drafted for Consumer's Energy and Howells Farms were the first notices submitted to these property owners.

**Task 8 - NPDES PLUS Monitoring**

Routine Work

- Completed the monthly NPDES Plus Monitoring event for February.

Non - Routine Work

- Continued evaluation of the GSI pathway and prepared a sampling plan to determine whether the pathway is applicable.

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

Routine Work

- No work performed.

Non - Routine Work

- No work performed.

**Task 10 – Maintain Select Surface Covers**

Routine Work

- No work performed.

Non - Routine Work

- Finalize Select Surface Cover AOI 29-A Investigation Summary of Results memorandum.

- Revised the Select Surface Cover RFP.

#### **Task 11 - Lead Soil Removal**

##### Routine Work

- No work performed.

##### Non - Routine Work

- Finalized draft of the Northern Parcel Summary Memo.
- Developed a work plan to delineate the Northern Parcel exceedances of inhalation criteria for manganese.
- Revised the AOI 09-A Soil Removal RFP.

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

##### Routine Work

- Prepared the Monthly EPA update memo.

##### Non - Routine Work

- Continued development of Annual CMI report.

#### **Task 13 - Outfall 002/005 Oil Minimization & Investigation**

##### Routine Work

- Not Applicable.

##### Non - Routine Work

- Continued engineering evaluation of drainage areas and existing sewer pipe capacities for re-routing the Outfall 004 storm sewer at the upgradient Site property boundary into the Outfall 013 storm sewer.
- Began the bulkheading construction activities including identification of manhole locations and covering activities.

#### **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

- Performed minor maintenance at AOI 09-B MPE treatment system. System startup is anticipated for spring 2013.



**Attachment 3**

March 2013 Project Update



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  
Christi Kiker, ARCADIS

From:  
Micki Maki

Date:  
April 10, 2013

ARCADIS Project No.:  
B0064410.2013

Subject:  
March 2013 Project Update - RACER Buick City Site, Flint, Michigan

---

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this March 2013 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from March 1, 2013 through March 31, 2013.

**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

- No work performed.

**Task 2 - LNAPL Investigation**

Routine Work

- No work performed.

Non - Routine Work

- Completed gauging and sampling identified in the LNAPL Investigation Work Plan. Due to a 1 to 2 foot increase in groundwater elevations in the Northend of the Site, LNAPL was no longer present at some of the proposed sampling locations. These locations will be gauged again for LNAPL during the summer.
- Coordinated upcoming field efforts to complete transmissivity testing, and additional soil boring/monitoring well installation at AOI 05-1/05-5, AOI 10-1/10-4, and investigations at AOI 83/84 scheduled to be performed in April.
- Finalized Southend Transmissivity Report.
- Finalized Natural Source Zone Depletion (NSZD) Report.
- Finalized LIF extent of impact Figures.

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

Routine Work

- No work performed.

Non - Routine Work

- Continued reviewing data for Northend AOI's and developed next step and technology/remedy options.

**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. Disposed of waste as necessary.
- Performed inspections of Oil Interceptor #2.



Non - Routine Work

- Perform cleaning of Oil Water Interceptor #2.

**Task 7 - Enhanced Groundwater Monitoring**

Routine Work

- No work performed.

Non - Routine Work

- Finalized and submitted Notices of Migration Contamination (NOM) for three offsite property owners: City of Flint, Consumers Energy and Howell Farms. NOM had previously been submitted to the City of Flint in 2003 and 2006. The NOM for the City of Flint properties were updated to include additional analytes based on the results of the 2012 Annual Sampling Event. The NOMs submitted to Consumer's Energy and Howells Farms were the first notices submitted to these property owners.

**Task 8 - NPDES PLUS Monitoring**

Routine Work

- Completed the monthly NPDES Plus Monitoring event for March.

Non - Routine Work

- Continued evaluation of the GSI pathway and prepared a sampling plan to determine whether the pathway is applicable.

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

Routine Work

- No work performed.

Non - Routine Work

- No work performed.

**Task 10 – Maintain Select Surface Covers**

Routine Work

- No work performed.

Non - Routine Work

- Completed the Select Surface Cover RFP and performed Bid walk.

**Task 11 - Lead Soil Removal**

Routine Work

- No work performed.

Non - Routine Work

- Completed delineation field work for the Northern Parcel investigation of inhalation criteria exceedances for manganese.
- Revised the AOI 09-A Soil Removal RFP.

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

Routine Work

- Prepared the Monthly EPA update memo.

Non - Routine Work

- Completed and submitted the Annual CMI report.
- Revise the site specific Health and Safety Plan (HASP) for changed conditions at the site.

**Task 13 - Outfall 002/005 Oil Minimization & Investigation**

Routine Work

- Not Applicable.

Non - Routine Work

- Continue engineering evaluation of drainage areas and existing sewer pipe capacities for re-routing the Outfall 004 storm sewer at the upgradient Site property boundary into the Outfall 013 storm sewer.
- Completed the initial bulkheading construction activities at Outfall storm sewers 002, 003, 005, and 007.

**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

- Performed minor maintenance at AOI 09-B MPE treatment system. System startup is scheduled for April 2013.



**Attachment 4**

RACER Buick City Field Schedule  
2013 – Second and Third Quarter

**RACER Buick City 2013  
Field Schedule  
Second and Third Quarters**

ID	Task Name	Duration	Start	Finish	13	Mar 31 '13	Apr 7 '13	Apr 14 '13	Apr 21 '13	Apr 28 '13	May 5 '13	May 12 '13	May 19 '13	May 26 '13	Jun 2 '13	Jun 9 '13	Jun 16 '13	Jun 23 '13	Jun 30 '13	Jul 7 '13	Jul 14 '13	Jul 21 '13	Jul 28 '13	Aug 4 '13	Aug 11 '13	Aug 18 '13	Aug 25 '13	Sep 1 '13	Sep 8 '13	Sep 15 '13	Sep 22 '13	Sep 29 '13				
1	REMEDIATION ACTIVITIES - Second and Third Quarter	131 days?	Mon 4/1/13	Mon 9/30/13		[Yellow bar]																														
2	<b>Task 1 - Outfall 003/004 Oil Removal Systems</b>	131 days	Mon 4/1/13	Mon 9/30/13		[Yellow bar]																														
3	Subtask 01 - Weekly Inspections	131 days	Mon 4/1/13	Mon 9/30/13		[Yellow bar]																														
4	Subtask 03 - Maintenance Event	5 days	Mon 6/3/13	Fri 6/7/13		[Yellow bar]																														
5	003/004 Maintenance Event	5 days	Mon 6/3/13	Fri 6/7/13																																
6	<b>Task 2 - LNAPL Investigation</b>	121 days	Mon 1/14/13	Sun 6/30/13		[Yellow bar]																														
7	Subtask 04 - Natural Source Zone Depletion Study (Northend)	5 days	Mon 5/6/13	Fri 5/10/13																																
8	One Time Field Event	5 days	Mon 5/6/13	Fri 5/10/13																																
9	Subtask 05 - LNAPL Transmissivity Evaluation (Northend)	17 days	Mon 4/1/13	Tue 4/23/13																																
10	Well Development - Phase 1 Wells	5 days	Mon 4/8/13	Fri 4/12/13																																
11	Transmissivity Testing - Phase 1	5 days	Mon 4/22/13	Fri 4/26/13																																
12	Well Development - Phase 2 Wells	3 days	Wed 6/26/13	Fri 6/28/13																																
13	Transmissivity Testing - Phase 2	7 days	Mon 7/8/13	Tue 7/16/13																																
14	Subtask 06- Miscellaneous LNAPL Evaluation/Testing	75 days	Mon 4/8/13	Fri 7/19/13																																
15	Soil boring/well installation - first 5 priority AOI's	5 days	Mon 4/8/13	Fri 4/12/13																																
16	AOI 83/84 potential plume investigation	5 days	Mon 4/15/13	Fri 4/19/13																																
17	Respirometry Testing	5 days	Mon 5/6/13	Fri 5/10/13																																
18	Soil boring/well installation - second 5 priority AOI's	10 days	Wed 5/15/13	Tue 5/28/13																																
19	Soil boring/well installation - third 5 priority AOI's	10 days	Mon 7/8/13	Fri 7/19/13																																
20	<b>Task 3 - Benchscale/pilot testing</b>	131 days	Mon 4/1/13	Mon 9/30/13		[Yellow bar]																														
21	Pilot testing for first 5 priority AOI's (if necessary)	27 days	Mon 6/3/13	Tue 7/9/13																																
22	Pilot testing for second 5 priority AOI's (if necessary)	30 days	Mon 7/1/13	Fri 8/9/13																																
23	Pilot testing for third 5 priority AOI's (if necessary)	43 days	Thu 8/1/13	Mon 9/30/13																																
24	<b>Task 6 - Maintain Booms on Outfalls</b>	131 days	Mon 4/1/13	Mon 9/30/13		[Yellow bar]																														
25	Subtask 00 - Oil Interceptor #2 Inspection and Waste Removal	131 days	Mon 4/1/13	Mon 9/30/13		[Yellow bar]																														
26	Subtask 01 - Outfall Boom Inspections and Maintenance - 2 hours per day	131 days	Mon 4/1/13	Mon 9/30/13		[Yellow bar]																														
27	<b>Task 7 - Enhanced Groundwater Sampling</b>	32 days	Mon 5/6/13	Tue 6/18/13																																
28	Well Development, Repair, and Replacement	10 days	Mon 5/6/13	Fri 5/17/13																																
29	Annual Sampling Event	12 days	Mon 6/3/13	Tue 6/18/13																																
30	<b>Task 8 - NPDES PLUS Monitoring</b>	110 days	Tue 4/9/13	Mon 9/9/13																																
31	April NPMP Sampling Event	1 day	Tue 4/9/13	Tue 4/9/13																																
32	May NPMP Sampling Event	1 day	Tue 5/7/13	Tue 5/7/13																																
33	June NPMP Sampling Event	1 day	Tue 6/4/13	Tue 6/4/13																																
34	September Quarterly NPMP Sampling Event	1 day	Mon 9/9/13	Mon 9/9/13																																
35	<b>Task 9 - RCRA Closures, Well Abandonment, Restrictive covenants, Resolve UST Issues</b>	2 days	Mon 5/13/13	Tue 5/14/13																																
36	Subtask 00 - RCRA WMU Closures	2 days	Mon 5/13/13	Tue 5/14/13																																
37	Complete WMU #3 Investigation	2 days	Mon 5/13/13	Tue 5/14/13																																
38	<b>Task 10 - Maintain Select Surface Covers</b>	38 days	Thu 4/18/13	Mon 6/10/13																																
39	Subtask 00 - Surface Cover Inspections	1 day	Mon 6/10/13	Mon 6/10/13																																
40	2nd Quarter Inspection	1 day	Mon 6/10/13	Mon 6/10/13																																
41	Subtask 01 - Surface Cover Implementation	37 days	Thu 4/18/13	Fri 6/7/13																																
42	AOI 09-B Soil Pile Sampling	1 day	Thu 4/18/13	Thu 4/18/13																																
43	Surface cover installation - Phase 1	5 days	Mon 4/22/13	Fri 4/26/13																																
44	Surface cover installation - Phase 2	5 days	Mon 6/3/13	Fri 6/7/13																																
45	<b>Task 11 - AOI 09-A Soil Removal</b>	45 days	Mon 4/1/13	Fri 5/31/13																																
46	Subtask 01 - Soil Removal	45 days	Mon 4/1/13	Fri 5/31/13																																
47	RFP & Planning	25 days	Mon 4/1/13	Fri 5/3/13																																
48	AOI 09-A Soil Removal	20 days	Mon 5/6/13	Fri 5/31/13																																
49	<b>Task 13 - Outfall 002/005 Oil Minimization &amp; Investigation</b>	59 days	Mon 4/1/13	Thu 6/20/13																																
50	Subtask 01 - Outfall Bulkhead Design (Southend)	34 days	Mon 5/6/13	Thu 6/20/13																																
51	Additional Bulkhead Investigations	34 days	Mon 5/6/13	Thu 6/20/13																																
52	Subtask 03 - Outfall 002 & 005 Bulkhead implementation	13 days	Mon 4/1/13	Wed 4/17/13																																
53	Bulkhead Implementation	13 days	Mon 4/1/13	Wed 4/17/13																																
54	<b>Task 15 - LNAPL Recovery OM&amp;M Followed by Secondary LNAPL Remediation</b>	131 days	Mon 4/1/13	Mon 9/30/13																																
55	Outfall 002 Passive Recovery Trench	30 days	Thu 4/18/13	Wed 5/29/13																																
56	AOI 09-B NAPL Recovery O&M	131 days	Mon 4/1/13	Mon 9/30/13																																

US EPA ARCHIVE DOCUMENT