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*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 2015 Progress Report (No. 15)  
Revitalizing Auto Communities Environmental Response (RACER) Trust  
Buick City Site, Flint, Michigan

Date:  
April 15, 2015

Contact:  
Micki M. Maki

Dear Mr. Black:

Phone:  
248.994.2271

On behalf of Revitalizing Auto Communities Environmental Response Trust (RACER), ARCADIS is submitting this First Quarter 2015 Progress Report (No. 15) 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)

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.

Our ref:  
B0064410.2015

This First Quarter 2015 Progress Report (No. 15) covers the period of January 1, 2015 through March 31, 2015.

Please note that this quarterly progress report has been updated to reflect the new 2015 project task numbers and names.

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 2015 Annual CMI Report, except as noted below.

### **1.1 Storm Sewer Water Samples**

In January and February ARCADIS conducted the “NPDES Plus” Monitoring Program (NPMP) sampling program. The NPMP typically consists of collecting monthly samples from the following Site storm sewers as access allows MP001, MP003, MP006, MP011, and MP013. The NPMP data will be included in the Annual CMI Report or CMI work plan, as appropriate. The NPMP monthly sampling program was discontinued in March 2015. Future NPMP activities will consist of completing additional investigations to identify potential sources of impacts from the onsite drainage area as well as impacted contributions from offsite sources.

As required per Part 1, Section A2 in the current National Pollution Discharge Elimination System (NPDES) Permit No. MI0001597, weekly composite samples were collected from Monitoring Point 003A. This data will be included in the 2015 Yearly Pollutant Minimization Plan (PMP) for PCBs report, which will be submitted to the Michigan Department of Environmental Quality (MDEQ) as required in the NPDES permit.

### **1.2 AOI 83/84-5 Soil Gas and Soil Samples**

In February 2015 two soil gas probes were installed and sampled on RACER property located on the west side of Industrial Avenue, across from the AOI 83/84-5 LNAPL Area. While installing the probes impacted soils were noted at one of the locations; therefore, a soil sample was collected of the most impacted interval from both soil probe locations.

The soil gas samples were submitted for analysis of volatile organic compounds (VOCs) by Method TO-15 and Methane by USEPA Method RSK-175. The soil samples were submitted to the laboratory for analysis of VOCs, semi-volatile organic compounds (SVOCs), metals, and polychlorinated biphenyls (PCBs).

### **1.3 Groundwater Samples**

In March 2015 groundwater samples were collected from 47 existing Site monitoring wells as part of the 1,4-Dioxane investigation. The groundwater samples were

submitted to the laboratory for analysis of VOCs by Method 8260SIM. The 1,4-Dioxane data will be presented in a summary memo.

Also in March 2015, groundwater samples were collected from three monitoring wells located at Waste Management Unit (WMU) #7. The groundwater samples were submitted for laboratory analysis of F-scan VOCs and SVOCs and methanol. The WMU #7 data will be presented in a summary memo.

#### **1.4 Soil Samples**

In March 2015, fifteen soil samples were collected from the AOI 36-1/36-2 LNAPL Area to further characterize the extent of impacts exceeding the Michigan Department of Environmental Quality (MDEQ) nonresidential infinite source volatile soil inhalation (ambient air) criteria. The soil samples were submitted for analysis of VOCs, PCBs, and total petroleum hydrocarbons (TPH) – oil range organics, - diesel range organics, and - gasoline range organics. The results of this sampling will be presented in the AOI 36-1/36-2 system design documentation.

Also in March 2015, ten soil samples were collected from the AOI 05-1 area to delineate the extent of manganese and lead impacts in soils. Seven soil samples were submitted to the laboratory for manganese analysis and three were submitted for lead analysis. This data will be presented in a summary memo.

#### **1.5 LNAPL Sample**

In March 2015 an LNAPL sample was collected from the AOI 10-1/10-4 LNAPL Area to aid in characterize PCB concentrations. The LNAPL sample was submitted to the laboratory for analysis of PCBs. This data will be presented in a summary memo.

### **2. Work Performed This Quarter**

Attachments 1, 2, and 3 present the monthly Site progress reports for January, February, and March that document the work performed this quarter. Please note that minor edits have been made to the previously submitted January monthly report to reflect the updated 2015 task names and numbers.

### **3. Problems Encountered**

No problems were encountered.

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

A projected field work schedule for the second and third quarters of 2015 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 perform inspections of Oil Interceptor #2.

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

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

*Task 17 Compliance*

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

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

- Continue OM&M phase of Outfall 002 passive recovery trench.
- Begin monitoring of Outfall 004/013 re-route.

##### 4.2 Non-Routine Work

*Task 2 LNAPL Investigation*

- Continue additional investigation of LNAPL areas and impacts.
- Evaluate Site data to aid in selecting methods and locations for additional LNAPL pilot testing.
- Complete additional transmissivity testing at select LNAPL plumes located in the Northend of the Site.

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

- Complete evaluation of AOI 36-1/36-2 pilot test data and prepare basis of design document.
- Complete proposed vapor intrusion investigation.

*Task 6 Maintain Booms on Outfalls*

- Perform maintenance event of Oil Interceptor #2. Dispose of waste as necessary.

*Task 7 Enhanced Groundwater Monitoring*

- Evaluate recently collected 1,4-dioxane data and determine next steps.
- Evaluate the 2014 Annual Groundwater Monitoring Data and prepare sampling plan for 2015 Annual Monitoring Event.

*Task 8 NPDES Plus Monitoring*

- Perform groundwater data evaluation and monitoring well installation at the Former Factory 84 Area to determine the source of metal impacts and whether the impacts are reaching the Flint River.

*Task 18 Address Soil Impacts*

- Complete AOI 40-A Soil Remedy Work Plan and begin remedy implementation upon EPA approval.
- Complete evaluation of delineation data for soil impacts and draft remedy recommendations and/or work plans.

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

- Complete re-route of Outfall 004 and 013 storm sewer.
- Continue investigation of options to address infiltration at Outfall 003.
- Continue investigation and data evaluation of AOI 83/84-5 LNAPL Area and develop recommendations for potential remedies.
- Begin design of AOI 36-1/36-2 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 – 100%
- Northend Transmissivity Testing – 75%
- Additional LNAPL Investigation – 85%

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

- LNAPL Bench Scale Testing – 100%
- LNAPL Pilot Scale Testing – 40%

*Task 7 Enhanced Groundwater Monitoring*

- Groundwater Monitoring – Ongoing

*Task 8 NPDES PLUS Monitoring*

- NPDES PLUS Monthly Monitoring – 100%
- NPMP Investigations – 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 Site-wide Groundwater - 100%

- Revised CMP Addendum No. 2-1 – Response to EPA Comments - 100%
- 2012 CMI Annual Report – 100%
- 2013 CMI Annual Report – 100%

*Task 17 Compliance*

- Outfall 003A Weekly Sampling – Ongoing
- SWPPP Inspections , Reporting and Plan Review – Ongoing
- Yearly Trend Monitoring Report - Ongoing
- Yearly PCB Minimization Plan Report - Ongoing

*Task 18 Address Soil Impacts*

- Maintain Select Surface Covers – Ongoing
- Installation of Additional Surface Cover – Southend – 90%
- Lead Soil Removal – 100%
- Northern Parcel Investigation – 100%
- Northern Parcel Soil Removal – 100%

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

Remedy Design

- Outfall 002 Storm Sewer Evaluation - 100%
- Outfall 003 Storm Sewer Evaluation – 60%
- Outfall 004 Re-route into Outfall 013 Evaluation - 100%
- Outfall 005 Storm Sewer Evaluation – 100%
- AOI 09-B System Design, Permitting, and Construction – 100%
- AOI 36-1/36-2 System Design Permitting and Construction – 0%

Remedy Implementation

- Outfall 002 Final Measure Implementation– 90%
- Outfall 003 Final Measure Implementation – 0%
- Outfall 004 Final Measure Implementation – 50%
- Outfall 005 Final Measure Implementation – 90%
- Outfall 006 Final Measure Implementation – 90%
- Outfall 007 Final Measure Implementation – 100%

- Outfall 009 Final Measure Implementation – 100%
- Outfall 010 Final Measure Implementation – 100%
- Northend RCRA WMU Closures – 90%
- Southend RCRA WMU Closures – 90%
- UST Issue Resolution – 100%
- Restrictive Covenants – 50%
- Monitoring Well Abandonments – 5%

Remedy OM&M

- AOI 09-B LNAPL Recovery OM&M – Ongoing

**6. Budget Status**

- 2015 Budget – The 2015 Budget Request was approved by the EPA on December 16, 2014.

If you have any questions, please contact me.

Sincerely,  
ARCADIS



Micki M. Maki  
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)



Attachments:

Attachment 1 – January 2015 Project Update - RACER Buick City Site

Attachment 2 – February 2015 Project Update - RACER Buick City Site

Attachment 3 – March 2015 Project Update - RACER Buick City Site

Attachment 4 – RACER Buick City Field Schedule –2<sup>nd</sup> and 3<sup>rd</sup> Quarter 2015



**Attachment 1**

January 2015 Project Update



ARCADIS of Michigan, LLC  
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**MEMO**

To:  
Chris Black, USEPA

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

From:  
Micki M. Maki

Date:  
March 12, 2015  
Revised April 9, 2015

ARCADIS Project No.:  
B0064410.2015.01202

Subject:  
January 2015 Project Update - RACER Buick City Site, Flint, Michigan

---

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this January 2015 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from January 1, 2015 through January 31, 2015. Please note that this monthly report has been revised to reflect the 2015 Task Numbers and Task Names.

**Non-Routine OMM Work**

Task 2 - LNAPL Investigation

- Continued review and analysis of analytical data and development of electronic boring logs associated with the Supplemental Corrective Measures Investigation (SCMI) investigation.
- Coordinated SCMI investigation waste documentation, container inspections, and disposal.
- Performed well development on recently constructed and completed SCMI wells.

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

- Coordinated vapor intrusion (VI) for sampling locations included in the SCMI work plan.

## Task 7 - Enhanced Groundwater Monitoring

- Finalized draft 1,4-Dioxane Work Plan for RACER review.
- Prepared data tables and figures for annual groundwater monitoring report.

## Task 8 - NPDES PLUS Monitoring

- Finalized and submitted notices regarding the Northern Parcel sale to American SpiralWeld, which includes the Outfall 001 storm sewer, to the City of Flint and MDEQ.
- Reviewed data and prepared cross sections for Factory 84 area in association with the metal investigation.

## Task 19 – Remedy Design, Implementation, and OM&M

- Continued coordinating the Outfall 004 reroute activities.
- Continued evaluation of potential remedies for Outfall 003 reroute status.
- Prepared a traffic control plan for the surveying and sewer camera work associated with the Outfall 003 feasibility study.

## **Routine OMM Work**

### Task 1 - Outfall 003/004 Oil Removal Systems

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

## Task 6 - Maintain Booms on Outfalls

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

## Task 8 - NPDES PLUS Monitoring

- Completed the January monthly NPMP sampling event.

## Task 19 – Remedy Design, Implementation, and OM&M

- Performed maintenance activities on the AOI-09B system.
- Generated and submitted the December monthly POTW report to the City of Flint and December monthly air report to MDEQ for the AOI-09B system.
- Completed the monthly 002 passive recovery trench inspection and gauging.



**Attachment 2**

February 2015 Project Update



ARCADIS of Michigan, LLC  
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**MEMO**

To:  
Chris Black, USEPA

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

From:  
Micki M. Maki

Date:  
March 26, 2015

ARCADIS Project No.:  
B0064410.2015.01202

Subject:  
February 2015 Project Update - RACER Buick City Site, Flint, Michigan

---

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this February 2015 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from February 1, 2015 through February 28, 2015. Please note that the monthly report has been updated to reflect the 2015 Task Numbers and Task Names.

**Non-Routine OMM Work**

Task 2 - LNAPL Investigation

- Continued review and analysis of analytical data and development of electronic boring logs associated with the Supplemental Corrective Measures Investigation (SCMI) investigation.
- Drafted text, tables and figures for SCMI Work Plan Addendum No. 1.
- Completed SCMI investigation waste documentation, container inspections, and waste disposal.
- Identified locations for survey and utility locate for SCMI activities.
- Coordinated completion of remaining field work from the SCMI Work Plan.

## Task 3 - LNAPL Investigation

- Began coordination of AOI 36-1/36-2 Pilot Test.

## Task 7 - Enhanced Groundwater Monitoring

- Continued finalizing draft 1,4-Dioxane Work Plan for RACER review.
- Drafted and finalized Notice of Migration Documents.

## Task 8 - NPDES PLUS Monitoring

- Continued review of former Factory 84 groundwater data and preparation of cross sections of the former Factory 84 area to aid in data interpretation.
- Began drafting the Outfall 001 NPMP Data Summary memo.
- Drafted text and figures for additional delineation scope of work for groundwater impacts at the former Factory 84 area to be included in SCMI Work Plan.

## Task 19 – Remedy Design, Implementation and OM&M

- Finalized text, figures and tables for the AOI 09-B Status Memo.

## **Routine OMM Work**

### Task 1 - Outfall 003/004 Oil Removal Systems

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



## Task 6 - Maintain Booms on Outfalls

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

## Task 8 - NPDES PLUS Monitoring

- Completed the February monthly NPMP sampling event.

## Task 17 – Outfall 003A Weekly Sampling

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

## Task 19 – Remedy Design, Implementation and OM&M

- Performed maintenance activities on the AOI 09-B system.
- Generated and submitted the January monthly POTW report to the City of Flint and January monthly air report to MDEQ for the AOI 09-B system.
- Completed the monthly inspection and gauging of the 002 passive recovery trench.



**Attachment 3**

March 2015 Project Update



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**MEMO**

To:  
Chris Black, USEPA

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

From:  
Micki M. Maki

Date:  
April 13, 2015

ARCADIS Project No.:  
B0064410.2015.01202

Subject:  
March 2015 Project Update - RACER Buick City Site, Flint, Michigan

---

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this March 2015 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from March 1, 2015 through March 31, 2015.

**Non-Routine OMM Work**

Task 2 - LNAPL Investigation

- Continued review and analysis of analytical data and development of electronic boring logs associated with the Supplemental Corrective Measures Investigation (SCMI).
- Installed soil borings and monitoring wells at area of interest (AOI) 36-1/36-2 and AOI 05-1 as part of SCMI.
- Completed SCMI investigation waste documentation, container inspections, and disposal.

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

- Installed and sampled soil vapor monitoring points to evaluate potential impacts associated with the AOI 83/84-5 light non-aqueous phase liquid (LNAPL) Area.

- Developed detailed scope of work for the vapor intrusion investigation to be completed at locations identified in the Vapor Intrusion Evaluation Memo.
- Installed and developed pilot test extraction well and three monitoring wells for AOI-36-1/36-2 pilot test.
- Performed slug testing on pilot test extraction and monitoring wells to determine necessary pumping rates to achieve dewatering during pump test.
- Collected groundwater samples to characterize waste for pilot test and completed waste profiling and container inspections.

## Task 7 - Enhanced Groundwater Monitoring

- Completed re-development of approximately 25 monitoring wells and groundwater sampling of approximately 50 monitoring wells for the 1,4-Dioxane Investigation.
- Began evaluation of 2014 annual groundwater monitoring data and development of 2015 monitoring plan.

## Task 8 - NPDES PLUS Monitoring

- Continued review of former Factory 84 groundwater data and preparation of cross sections of the former Factory 84 area to aid in data interpretation.
- Finalized the draft Outfall 001 NPMP Data Summary memo.
- Began preparing draft tables and figures for Outfall 006 NPMP Data Summary Memo

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

- Drafted Concrete Sampling Summary Memo

## Task 19 – Remedy Design, Implementation and OM&M

- Finalized text, figures and tables for the AOI 09-B Status Memo.

- Began field activities re-routing the Outfall 004 storm sewer into Outfall 013 storm sewer.

## **Routine OMM Work**

### Task 1 - Outfall 003/004 Oil Removal Systems

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

### Task 6 - Maintain Booms on Outfalls

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

### Task 17 – Outfall 003A Weekly Sampling

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

### Task 19 – Remedy Design, Implementation and OM&M

- Generated and submitted the February monthly POTW report to the City of Flint and February monthly air report to MDEQ for AOI 09-B system.
- Performed a test on AOI 09-B system blowers to determine source of oil leak.



**Attachment 4**

Field Schedule –2<sup>nd</sup> and 3<sup>rd</sup>  
Quarter 2015

ID	Task Name	Duration	Start	Finish	Predec(Resource Names)	2015 Schedule - Q2 and Q3											
						April	2nd Quarter			June	July	3rd Quarter		September			
1	<b>Task 1 - Outfall 003/004 Oil Removal Systems</b>	131 days	Wed 4/1/15	Wed 9/30/15		[Gantt bar spanning from 4/1/15 to 9/30/15]											
2	Outfall 003/004 System OMM	131 days	Wed 4/1/15	Wed 9/30/15		[Gantt bar spanning from 4/1/15 to 9/30/15]											
3	Outfall 003/004 System Maintenance Event	10 days	Mon 8/17/15	Fri 8/28/15		[Gantt bar spanning from 8/17/15 to 8/28/15]											
4	<b>Task 2 - Supplemental Investigations</b>	131 days	Wed 4/1/15	Wed 9/30/15		[Gantt bar spanning from 4/1/15 to 9/30/15]											
5	EPA Review and Approval Process	18 days	Wed 4/1/15	Fri 4/24/15		[Gantt bar spanning from 4/1/15 to 4/24/15]											
6	Investigation Field Work	20 days	Mon 4/27/15	Fri 5/22/15	7	[Gantt bar spanning from 4/27/15 to 5/22/15]											
7	Evaluate Data and Determine Next Steps	20 days	Mon 5/25/15	Fri 6/19/15	8	[Gantt bar spanning from 5/25/15 to 6/19/15]											
8	Prepare SCMI Summary Memo	20 days	Mon 6/22/15	Fri 7/17/15	9	[Gantt bar spanning from 6/22/15 to 7/17/15]											
9	Vapor Intrusion Investigation	16 days	Fri 4/17/15	Fri 5/8/15		[Gantt bar spanning from 4/17/15 to 5/8/15]											
10	Evaluate Data and Determine Next Steps	10 days	Mon 5/11/15	Fri 5/22/15	12	[Gantt bar spanning from 5/11/15 to 5/22/15]											
11	Transmissivity Testing	24 days	Fri 4/17/15	Wed 5/20/15		[Gantt bar spanning from 4/17/15 to 5/20/15]											
12	Evaluate Data	10 days	Thu 5/21/15	Wed 6/3/15	15	[Gantt bar spanning from 5/21/15 to 6/3/15]											
13	Prepare Transmissivity Summary Memo	20 days	Thu 6/4/15	Wed 7/1/15	16	[Gantt bar spanning from 6/4/15 to 7/1/15]											
14	<b>Task 3 - LNAPL Recovery Bench and Field Scale Pilot Testing</b>	40 days?	Mon 4/27/15	Fri 6/19/15		[Gantt bar spanning from 4/27/15 to 6/19/15]											
15	AOI 36-1/36-2 Pilot Test Summary/Basis of Design (BOD) Report	20 days	Mon 4/27/15	Fri 5/22/15		[Gantt bar spanning from 4/27/15 to 5/22/15]											
16	EPA Approval of AOI 36-1 BOD Recommendations	20 days	Mon 5/25/15	Fri 6/19/15	20	[Gantt bar spanning from 5/25/15 to 6/19/15]											
17	<b>Task 6 - Maintain Booms on Outfalls</b>	131 days	Wed 4/1/15	Wed 9/30/15		[Gantt bar spanning from 4/1/15 to 9/30/15]											
18	Standard OMM	131 days	Wed 4/1/15	Wed 9/30/15		[Gantt bar spanning from 4/1/15 to 9/30/15]											
19	Oil Interceptor #2 Maintenance	131 days	Wed 4/1/15	Wed 9/30/15		[Gantt bar spanning from 4/1/15 to 9/30/15]											
20	<b>Task 7 - Annual Groundwater Monitoring Event</b>	131 days	Wed 4/1/15	Wed 9/30/15		[Gantt bar spanning from 4/1/15 to 9/30/15]											
21	Complete data evaluation	43 days	Wed 4/1/15	Fri 5/29/15		[Gantt bar spanning from 4/1/15 to 5/29/15]											
22	EPA review and Approval Process	30 days	Mon 6/1/15	Fri 7/10/15	28	[Gantt bar spanning from 6/1/15 to 7/10/15]											
23	Coordinate and conduct event	30 days	Mon 7/13/15	Fri 8/21/15	29	[Gantt bar spanning from 7/13/15 to 8/21/15]											
24	1,4 Dioxane data review and sampling plan development	25 days	Wed 4/1/15	Tue 5/5/15		[Gantt bar spanning from 4/1/15 to 5/5/15]											
25	<b>Task 8 - NPDES Plus Monitoring</b>	131 days	Wed 4/1/15	Wed 9/30/15		[Gantt bar spanning from 4/1/15 to 9/30/15]											
26	Address Metal Impact in Site Storm Sewers	131 days	Wed 4/1/15	Wed 9/30/15		[Gantt bar spanning from 4/1/15 to 9/30/15]											
27	Factory 84 Work Plan Approval of Work Plan	18 days	Wed 4/1/15	Fri 4/24/15		[Gantt bar spanning from 4/1/15 to 4/24/15]											
28	Coordinate and Conduct Well Installation	10 days	Mon 4/27/15	Fri 5/8/15	37	[Gantt bar spanning from 4/27/15 to 5/8/15]											
29	Coordinate and Conduct Ultra Low Flow Sampling Event	10 days	Mon 5/11/15	Fri 5/22/15	38	[Gantt bar spanning from 5/11/15 to 5/22/15]											
30	Evaluate Data and Determine Next Steps	20 days	Mon 5/25/15	Fri 6/19/15	39	[Gantt bar spanning from 5/25/15 to 6/19/15]											
31	<b>Task 12 - Agency Coordination/Negotiation, Reporting, Project Management</b>	131 days	Wed 4/1/15	Wed 9/30/15		[Gantt bar spanning from 4/1/15 to 9/30/15]											
32	Agency Meetings and Negotiations	131 days	Wed 4/1/15	Wed 9/30/15		[Gantt bar spanning from 4/1/15 to 9/30/15]											
33	Project Management and Administration	131 days	Wed 4/1/15	Wed 9/30/15		[Gantt bar spanning from 4/1/15 to 9/30/15]											
34	Reporting	89 days	Fri 5/1/15	Wed 9/2/15		[Gantt bar spanning from 5/1/15 to 9/2/15]											
35	Final Decision Issued by EPA	1 day	Fri 5/1/15	Fri 5/1/15		[Gantt bar spanning from 5/1/15 to 5/1/15]											
36	CMI Work Plan	88 days	Mon 5/4/15	Wed 9/2/15	46	[Gantt bar spanning from 5/4/15 to 9/2/15]											
37	<b>Task 17 - Compliance</b>	131 days	Wed 4/1/15	Wed 9/30/15		[Gantt bar spanning from 4/1/15 to 9/30/15]											
38	Outfall 003A Weekly Sampling and eDMR's	131 days	Wed 4/1/15	Wed 9/30/15		[Gantt bar spanning from 4/1/15 to 9/30/15]											
39	SWPP annual review and Inspections	131 days	Wed 4/1/15	Wed 9/30/15		[Gantt bar spanning from 4/1/15 to 9/30/15]											
40	Yearly Trend Monitoring and PMP	131 days	Wed 4/1/15	Wed 9/30/15		[Gantt bar spanning from 4/1/15 to 9/30/15]											
41	<b>Task 18 - Addressing Soil Impacts</b>	1 day	Mon 6/15/15	Mon 6/15/15		[Gantt bar spanning from 6/15/15 to 6/15/15]											
42	Surface Cover Inspections	1 day	Mon 6/15/15	Mon 6/15/15		[Gantt bar spanning from 6/15/15 to 6/15/15]											
43	2015 Annual Inspection	1 day	Mon 6/15/15	Mon 6/15/15		[Gantt bar spanning from 6/15/15 to 6/15/15]											
44	<b>Surface Cover Installations</b>	75 days	Wed 4/1/15	Tue 7/14/15		[Gantt bar spanning from 4/1/15 to 7/14/15]											
45	Addendum to Soil Cover Work Plan	15 days	Wed 4/1/15	Tue 4/21/15		[Gantt bar spanning from 4/1/15 to 4/21/15]											
46	EPA Review and Approval Process	30 days	Wed 4/22/15	Tue 6/2/15	59	[Gantt bar spanning from 4/22/15 to 6/2/15]											
47	Remedy Implementation	30 days	Wed 6/3/15	Tue 7/14/15	60	[Gantt bar spanning from 6/3/15 to 7/14/15]											
48	<b>Task 19 - Remedy Design, Implementation, and OM&amp;M</b>	131 days	Wed 4/1/15	Wed 9/30/15		[Gantt bar spanning from 4/1/15 to 9/30/15]											
49	AOI 36-1/36-2 MPE System	131 days	Wed 4/1/15	Wed 9/30/15		[Gantt bar spanning from 4/1/15 to 9/30/15]											
50	Infrastructure Coordination	131 days	Wed 4/1/15	Wed 9/30/15		[Gantt bar spanning from 4/1/15 to 9/30/15]											
51	System Relocation and Installation Coordination	49 days	Sun 7/26/15	Wed 9/30/15		[Gantt bar spanning from 7/26/15 to 9/30/15]											
52	<b>Outfall 003 Reroute</b>	131 days	Wed 4/1/15	Wed 9/30/15		[Gantt bar spanning from 4/1/15 to 9/30/15]											
53	Outfall 003 Reroute Evaluation	30 days	Wed 4/1/15	Tue 5/12/15		[Gantt bar spanning from 4/1/15 to 5/12/15]											
54	Review Data and Reroute options with EPA	20 days	Wed 5/13/15	Tue 6/9/15	69	[Gantt bar spanning from 5/13/15 to 6/9/15]											
55	Outfall 003 Reroute Alignment Investigation	30 days	Wed 6/10/15	Tue 7/21/15	70	[Gantt bar spanning from 6/10/15 to 7/21/15]											
56	Review Data and Determine Next Steps	20 days	Wed 7/22/15	Tue 8/18/15	71	[Gantt bar spanning from 7/22/15 to 8/18/15]											
57	Outfall 004 Storm Sewer Reroute Monitoring	131 days	Wed 4/1/15	Wed 9/30/15		[Gantt bar spanning from 4/1/15 to 9/30/15]											
58	Outfall 002 Passive Recovery Trench OM&M	131 days	Wed 4/1/15	Wed 9/30/15		[Gantt bar spanning from 4/1/15 to 9/30/15]											
59	Remedy Design and Implementation	131 days	Wed 4/1/15	Wed 9/30/15		[Gantt bar spanning from 4/1/15 to 9/30/15]											
60	Restrictive Covenants	100 days	Wed 4/1/15	Tue 8/18/15		[Gantt bar spanning from 4/1/15 to 8/18/15]											
61	<b>AOI 09-B MPE System</b>	21 days	Thu 4/23/15	Thu 5/21/15		[Gantt bar spanning from 4/23/15 to 5/21/15]											
62	Submit AOI 09-B Completion Memo to EPA	1 day	Thu 4/23/15	Thu 4/23/15		[Gantt bar spanning from 4/23/15 to 4/23/15]											
63	EPA Review and Approval Process	20 days	Fri 4/24/15	Thu 5/21/15	83	[Gantt bar spanning from 4/24/15 to 5/21/15]											
64	<b>Task 20 - Outfall Exit</b>	122 days	Wed 4/1/15	Thu 9/17/15		[Gantt bar spanning from 4/1/15 to 9/17/15]											
65	Outfall 005	122 days	Wed 4/1/15	Thu 9/17/15		[Gantt bar spanning from 4/1/15 to 9/17/15]											
66	Coord with MDEQ/City Of Flint	30 days	Wed 4/1/15	Tue 5/12/15		[Gantt bar spanning from 4/1/15 to 5/12/15]											
67	EPA Review and Approval Process	30 days	Wed 5/13/15	Tue 6/23/15	88	[Gantt bar spanning from 5/13/15 to 6/23/15]											
68	End Outfall 005 Inspections	62 days	Wed 6/24/15	Thu 9/17/15	89	[Gantt bar spanning from 6/24/15 to 9/17/15]											